Original Research Article

A study of socio demographic profile of suicidal deaths in women of reproductive age group

Girish Gutte[1], Shivraj Mane[2*], Chandrakant Dode[3]

[1,2]Junior Resident, [3]Professor and HOD, Department of Forensic Medicine and Toxicology, Government Medical College, Latur, Maharashtra, INDIA.

Email: drgirishgutte@rediffmail.com

Abstract

Background: Female is the backbone of the family, society, and Nation. The significance of women's reproductive and nurturing role for health and development is undeniable. **Aims and Objectives:** To Study Socio Demographic profile of suicidal deaths in women of reproductive age group **Methodology:** A prospective study of pattern of alleged cases of suicidal deaths in women of reproductive age group was carried out in tertiary care hospital from 1st December 2014 to 30th November 2016. A total 200 cases of suicidal deaths in women of reproductive age group were studied out of 1680 autopsy conducted during the study period. All reproductive age group females (15-44yrs) cases with alleged history of suicide. **Result:** During two year study duration total 1690 autopsies were conducted, out of which 200 were of female victims of reproductive age group suicidal autopsies constituting 8.45%.Maximum number of victims belonged to age group 20-24 years constituting 31.5%. maximum number of deaths were observed in rural areas 138 (69%) 55% victims were housewives. Maximum number of deaths occurred in married 153 (76.5%). Maximum number of deaths were observed in March (12.5%) and February (11%). Maximum number of deaths were observed in high school 78 (39%). Maximum number of deaths occurred in class four 111 (55.5%). Maximum number of deaths occurred in Hindu 163 (81.5%). Maximum number of deaths occurred in joint family 139 (69.5%). **Conclusion:** The socio Demographic factors like Education, Rural area of residence, Occupation, Socio Economic status, Hindu religion and Joint were associated with the majority of the suicidal women so the women with these socio demographic background need more support in the for in the form of money by creating job opportunities, education facilities, increasing the age of marriage and psychological counselling if needed.

Key Words: Suicidal deaths in Women, SES(Socio Economic Status), Nuclear family, Joint Family.

***Address for Correspondence:**
Dr. Shivraj Mane, Junior Resident, [3]Professor and HOD, Department of Forensic Medicine and Toxicology, Government Medical College, Latur, Maharashtra, INDIA.
Email: drgirishgutte@rediffmail.com

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INTRODUCTION

Female is the backbone of the family, society, and Nation. The significance of women's reproductive and nurturing role for health and development is undeniable[1]. The worth of a civilization can be judged by the place given to women in the society. One of several factors that justify the greatness of India's ancient culture is the honourable place granted to women. Communicable disease, injury and poisoning are the major killers among reproductive age group women. Several factors responsible for accidents and suicides also contributed substantially to the mortality load among these women and suicides is among top five killer diseases in reproductive age group women[2]. WHO defines reproductive age in women to be between 15 and 44 years and reproductive health as "a state of physical, mental and social well being in all matters relating to reproductive systems at all stages of life."[3] In India 49.9% of total female population is constituted by women of reproductive age group[4]. Reproductive age is an important crucial period and a marker for human development and any imbalance can affect the health of next generation, social and economic development and thereby the society. Status of girls and women in society and how they are treated is a crucial determinant[5]. Women in the reproductive age group comprise a

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vulnerable section of our society as they are confronted with menstrual and pregnancy-related stress factors in addition to the stressors prevalent in the general population**.** The death of a woman in childbirth can threaten the survival of her entire family, many women shoulder a double burden of helping to support the family by working outside the home and taking full responsibility for household duties and child care, yet despite this vital role played by women in society, the high level of maternal mortality in many poor countries is strong evidence of the neglect of the health needs of women.[6] Suicide is a global public health problem. Asia accounts for 60% of the world's suicides, so at least 60 million people are affected by suicide or attempted suicide in Asia each year. The burden of female suicidal behaviour, in terms of total burden of morbidity and mortality combined, is more in women than in men. Women's greater vulnerability to suicidal behaviour is likely to be due to gender related vulnerability to psychopathology and to psychosocial stressors[7]. Suicidal deaths of married women have been an increasing trend in Indian society during the recent past years, the most obvious reason behind such deaths is unending demands of dowry (cash / kinds) by their husbands and / or in laws, for which they torture the bride in such a way that she commits suicide, either by burning, poisoning, hanging, jumping from terrace or by some other means. Besides this, family quarrels due to ill-treatment by in-laws, rash and negligent behaviour or extra-marital affairs of husband and mal-adjustment and infertility in wives are other reasons behind such deaths. Its increasing incidence is symbolic of continuing erosion and devaluation of women's status in independent India[8]. Suicide is the second commonest manner of unnatural death flanked by accident and homicide. Suicide is by no means a simple issue, for it hinges on a spectrum of ethical, legal, sociological and psychological problems and it is yet to be offered an unequivocal and satisfactory answer to all the questions raised by this perplexing phenomenon. Suicide represents a major health problem, human suicidal behaviour is always been a source of dread and wonder to mankind. There is no single cause or a group of causes that can give a complete explanation about the suicidal rate. It is undeniable that the aetiology of suicide still remains unknown. Research to date has neither unearthed nor revealed what possesses some individuals to effectuate their own demise and why such a desperate course of actions dictated. There is yet another aspect of problem that needs to be considered is the under reporting of suicide to some extent everywhere. Everyday thousands of people commit suicide in the world. Approximately one percent of the general population dies, suicide is among the ten leading causes of death for all ages in most of the countries. In some countries, it is among top three causes of death in people between 15-34years. According to the National crime records bureau, suicide is among the top ten causes of death in India and is also among the top three causes of death in India between 16 and 35 years[9].

MATERIAL AND METHODS

A prospective study of pattern of alleged cases of suicidal deaths in women of reproductive age group was carried out in tertiary care hospital from 1st December 2014 to 30th November 2016. A total 200 cases of suicidal deaths in women of reproductive age group were studied out of 1680 autopsy conducted during the study period. All reproductive age group females (15-44yrs) cases with alleged history of suicide. Cases diagnosed as suicide after postmortem examination were included into study while, Unclaimed and unknown bodies without relevant history, Decomposed bodies were excluded from the study. Data was collected from detailed examination of the deceased brought for postmortem examination during study period, inquest papers and police documents, hospital records, postmortem reports, history of relatives, dying declaration and photographs. Statistical analysis of data was done and presented as results and observations in tabular form, graphs and charts. The bodies were dissected by Roberts Virchow's Technique. All the body cavities were dissected, cranium, thoracic and abdominal cavities in that order and organs were examined grossly both in situ and after taking out of the body. Relevant samples/viscera were subjected to chemical analysis and histopathology examination and finding noted.

RESULT

Table 1: Distribution of Autopsies conducted during study period

Total autopsies	**1690**
Female victims of reproductive age group Suicidal autopsies	**200**

During two year study duration total 1690 autopsies were conducted, out of which 200 were of female victims of reproductive age group suicidal autopsies constituting 8.45%.

Table 2: Distribution of Female victims according to age

Sr. No	Age group (yrs)	No. of victims	Percentage
1	15-19	40	20.0
2	20-24	63	31.5
3	25-29	43	21.5
4	30-34	25	12.5
5	35-39	17	08.5
6	40-44	12	06.0
	Total	**200**	**100**

From above table, it can be observed that maximum number of victims belonged to age group 20-24 years constituting 31.5% of the total and age group 40-44 years is least affected with 6% of total. From the study females

in the age group of 20-24 years and 25-29 years outnumbered the other age groups. If we combine age group 15-19 years and 20-24 years constitutes 51.5% of total victim.

Table 3: Distribution of Female victims according to place of residence

Sr. No.	Place of Residence	No. of victims	Percentage
1	Urban	62	31
2	Rural	138	69
	Total	**200**	**100**

From above table it can be noted that maximum number of deaths were observed in rural areas 138 (69%) and least observed in urban areas 62 (31%).

Table 4: Distribution of Female victims according to occupation

Sr. No	Occupation	No. of victims	Percentage
1	Clerk	05	02.5
2	Housewife	110	55.0
3	Labourers	39	19.5
4	Teacher	04	02.0
5	Nurse	02	01.0
6	Tailor	10	05.0
7	Student	29	14.5
8	Maid	01	0.5
	Total	**200**	**100**

It can be easily seen from above table that 55% victims were housewives while rest all categories constitutes remaining half, females from labourer category constituted second major group of victims i.e. 19.5% followed by student 14.5%. It can be easily evident that suicidal deaths are less in professional females.

Table 5: Distribution of Female victims according to marital status

Sr. no	Marital status	No. of victims	Percentage
1	Married	153	76.5
2	Unmarried	44	22.0
3	Widow	03	1.5
	Total	**200**	**100**

From above table it seen that maximum number of deaths occurred in married 153 (76.5%) as compared to unmarried (22%) and minimum number of death occurred in widow 03 (1.5%).

Table 6: Distribution of Female victims according to Month wise

Sr. No	Month	No. of cases	Percentage
1	January	20	10.0
2	February	22	11.0
3	March	25	12.5
4	April	21	10.5
5	May	19	09.5
6	June	13	06.5
7	July	20	10.0
8	August	17	08.5
9	September	13	06.5
10	October	12	06.0
11	November	10	05.0
12	December	08	04.0
	TOTAL	**200**	**100**

Above table shows that maximum number of deaths were observed in March (12.5%) and February (11%) and minimum number of deaths were observed in Deceber (4%).

Table 7: Distribution of Female victims according to education

Sr. No	Educational Status	No. of victims	Percentage
1	Illiterate	41	20.5
2	Primary	29	14.5
3	Middle	31	15.5
4	High School	78	39.0
5	Intermediate	14	7.0
6	Graduate	05	2.5
7	Professional degree	02	1.0
	Total	**200**	**100**

From above table it can be clearly evident that maximum number of deaths were observed in high school 78 (39%) and minimum number of deaths occurred in victims having professional degree. It can be easily seen from above table that as education increases incidence of suicidal death decreases.

Table 8: Distribution of suicidal deaths according to socioeconomic status

Per Capita Income As Per Prasad (1961)	Socioeconomic Class Updated As Per Index for (May 2016)	Socioeconomic status	No. of victims (%)
Rs 100 and Above	Rs 6277 and Above	I	03 (1.5)
50-99	3139-6276	II	14 (7.0)
30-49	1883-3138	III	27 (13.5)
15-29	942-1882	IV	111 (55.5)
Below 15	Below 942	V	45 (22.5)
	Total		**200 (100)**

(Note-According to B.G. Prasad socioeconomic scale in above table is classified and modified as per all India consumer price Index (AICP) of May 2016). From above table we can conclude that maximum number of deaths occurred in class four 111 (55.5%) and minimum number of deaths occurred in class one 03 (1.5%).

Table 9: Distribution of Female victims according to religion

Sr. No.	Religion	No. of victims	Percentage
1	Hindu	163	81.5
2	Muslim	19	9.5
3	Buddhist	18	9.0
	Total	**200**	**100**

From above table it can be seen that maximum number of deaths occurred in Hindu 163 (81.5%) followed by Muslim 19 (9.5%) and Buddhist 18 (9%). Statistics regarding the religion wise population from our region is not available at present.

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Table 10: Distribution of Female victims according to type of family

Sr. No.	Type of Family	No. of victims	Percentage
1.	Nuclear	61	30.5
2.	Joint	139	69.5
	Total	**200**	**100**

From above table it can be shown that maximum number of deaths occurred in joint family 139 (69.5%) followed by nuclear family 61 (30.5%).

DISCUSSION

Suicidal death is one of the indicators of the level of social, physical and mental health. Suicidal deaths are a challenge to investigate and as death investigators, it is necessary to be aware of the common scenario, risk factors, methods and victims as well as pitfalls that may be encountered. Pattern of suicide vary widely according to time, region, age group, sex, and race. In an effort to understand and prevent suicide, we have investigated medical, psychosocial, cultural, and socio-economic risk factors associated with the environment. In 2011, our district had population of 2,455,543 of which male and female were 1,276,262 and 1,179,281 respectively. Our district population constituted 2.19% of total Maharashtra population. Average literacy rate of our district in 2011 was 79.03%. Gender wise, male and female literacy rate was 87.42 and 70.02 respectively. With regard to sex ratio in our district, it stood at 924 per 1000 male[11]. During two year study duration total 1690 autopsies were conducted, out of which 200 were of female victims of reproductive age group suicidal death constituting 8.45%. Prajapati Pankaj[8] *et al* in their study found that 6.96% autopsy cases of female suicidal death. Awdhesh Kumar[6] *et al* in their study found that 8% were suicidal victims. Chandrasekhar TN[12] in their study found that 8.98% were female suicide deaths. Present study is similar to Prajapati Pankaj[8] *et al*, Awdhesh Kumar[6] *et al*, Chandrasekhar TN[12], Shetty CK[17] *et al*. Maximum number of victims belonged to age group 20-24 years constituting 31.5% of the total and age group 40-44 years is least affected with 6% of total victim. From the study females in the age group of 20-24 years and 25-29 years outnumbered the other age groups and if we combine age group 15-19 years and 20-24 years constitutes 51.5% of total victim, due to the very fact that in cases of suicides, maximum number of deaths could be attributed to dowry, marital discord and love failures. Also this is most active and productive section of the community. It was clearly noted that maximum number of deaths occurred in rural area 69% followed by urban 31%. This might be due to the fact that our hospital is tertiary care centre having maximum catchment area from rural region. Geeta Sahu[18] *et al* in their study found that majority of victim were from rural region. observed that most of the victims were housewife (55%) followed by labourers category (19.5%). It has been observed that death in working females are less than the women staying at home. Reason may be, in this region commonly the age of marriage is 18 to 22, so the females are unable to complete their education and also due to the responsibilities of family, male predominance she remains as housewives and housewives were used to stay at home all time and could get opportunity to die at home when there is no one with them. Also females who are economically independent on their family are less affected as compared to dependent females i.e. housewives. NCRB[18] reported1 suicide out of every 6 suicides was committed by a housewife. most of the female death occurred in married females 76.5%. In developing country like India, females are married earlier than males in the family and are more exposed to social and family stress much earlier than males. Shetty CK *et al* in their study predicts marriage as being one of important risk factor for suicide. maximum numbers of deaths were observed in March (12.5%) and February (11%) month and when compared according to season maximum number of deaths were observed in March-June (summer season) i.e. 39%. Shetty CK*et al* noted that maximum number of suicidal deaths occurred in summer season. most of the females who died due to suicide were educated only up-to high school 39% and it is clearly observed that as educational status increases in females the death rate decreases. This might be due to the fact that professional females are economically independent on their other family members, are less affected by suicidal death as compared to less educated females who are dependent on their family. Srivastava A.K.[21]*et al*, found that most of females were educated up to primary school this might be due to improvement in literacy rate in the region. Maximum number of deaths were reported from class four category 55.5% followed by class five 22.5%. Reason may be lack of economic instability, insecurity among female victims resulting in suicidal death. Zine KU[19] *et al* noted that maximum cases were from class four socio-economic status 66.5% followed by class 5 (16%).maximum numbers of victims were of Hindu (81.5%) religion, because majority of population from this region belongs to Hindu religion. We also reported Muslim (9.5%) and Buddhist (9%), comparatively these communities are in minority hence death rate might be less. Kulshreshtha P.[20]*et al*, noted that most of female were belonging to Hindu. most of females were from joint family (69.5%). This might be due to the fact that in this area joint families are still existing and comparatively more than nuclear family as it is rural area. Females from joint family are more exposed to family conflict, physical and mental torture and maladjustment in family and

dependent on head of family. KulshreshthaP.[20] *et al* found that most of the victims were from nuclear family that might be due to rapid urbanization, family shifting in urban areas in search of work and other issues and segregating them from joint family.

CONCLUSION

The socio Demographic factors like Education, Rural area of residence, Occupation, Socio Economic status, Hindu religion and Joint were associated with the majority of the suicidal women so the women with these socio demographic background need more support in the for in the form of money by creating job opportunities, education facilities, increasing the age of marriage and psychological counselling if needed.

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