Original Research Article

Study of pattern of suicide among young females in Mullana, District Ambala, Haryana

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Abstract

Background: The nearly three times higher SDR (Suicidal Death Rate) observed in women in India as compared with the rate expected globally for geographies at similar levels of Socio-Demographic Index highlights the particular need to better understand the determinants of suicides among women in India.The reasons for greater female suicide completion in India may be sociocultural. Present study was undertaken to study pattern of suicide among young females in Mullana, District Ambala, Haryana. **Material and Methods:** Present retrospective, descriptive study was conducted in Department of Forensic Medicine and Toxicology, MMIMSR Mullana, District Ambala Haryana. Post-mortem records of the females, from 16-45 years of age with suicidal deaths were included for study. **Results:** During defined study period, total 124 cases were fitting study criteria. Most of the cases were from age group 16-25 years (48%), followed by age group 26-35 years (33%) and age group 36-45 years (19%).When socio-demographic characteristics were compared most cases were from Hindu religion (79 %) and from lower socio-economic class. Poisoning (36%) was most common method for suicide. Other methods for suicide were hanging (23%), burn (19%), drowning (15%), train (2%) and other methods (4%).Family disputes (40%) was most common underlying cause for suicide in present study. Love affairs (15%), dowry related (14%), other (9%) and financial (6%) were other underlying causes for suicide. In 17% cases underlying cause for suicide was not known. **Conclusion:** Women's lack of empowerment and both financial and emotional dependence have restricted their self-expression and choices in life. Several forms of gender role differentiation and gender-based discrimination are possible reasons for high Suicidal Death Rates in women.

Key Word: young female suicides, gender differences, dowry

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Received Date: 14/10/2019 Revised Date: 16/11/2019 Accepted Date: 09/12/2019
DOI: https://doi.org/10.26611/10181321

Access this article online	
Quick Response Code:	Website: www.medpulse.in
	Accessed Date: 02 February 2020

INTRODUCTION

Who defines reproductive age in women to be between 15 and 44 years and reproductive health as "a state of physical, mental and social wellbeing in all matters relating to reproductive systems at all stages of life" Young people are among those most affected; suicide is now the second leading cause of death for those between the ages of 15 and 29 years globally. The numbers differ between countries, but it is the low- and middle-income countries that bear most of the global suicide burden, with an estimated 75% of all suicides occurring in these countries[1]. The highest female suicide mortality rates were seen in the WHO South-East Asia Region (11.6 per 100 000 population) and in lower-middle-income countries (8.8 per 100 000 population). Male-to-female gender ratio of suicide rates is lower than 1 (i.e., a predominance of females) in the young age groups and greater than 1 (i.e., a predominance of males) in the middle and older age groups[1]. Men and women differ in their roles, responsibilities, status and power and these socially constructed differences interact with biological differences to contribute to differences in their suicidal behaviour. Among young people, suicidal behaviour was found to be associated with female gender, not attending school or college, independent decision making, premarital sex, physical abuse at home, lifetime experience of sexual abuse, and probable common mental disorders[2]. Violence and psychological distress were independently associated with suicidal behaviour. Factors

How to cite this article: Vinka Maini, Arindam Chatterjee. Study of pattern of suicide among young females in Mullana, District Ambala, Haryana. *MedPulse International Journal of Forensic Medicine.* February 2020; 13(2): 09-12.
https://www.medpulse.in/Forensic%20Medicine/

associated with gender disadvantage increased vulnerability, particularly in rural women[2]. The reasons for greater female suicide completion in India may be sociocultural. The common practice of arranged marriages in India result in social and family pressure for the woman to stay married even in an abusive relationship; this may increase the risk of suicide in women[3]. Also, stresses related to dowry demands may drive young brides to suicide[4]. The nearly three times higher SDR (Suicidal Death Rate) observed in women in India as compared with the rate expected globally for geographies at similar levels of Socio-Demographic Index highlights the particular need to better understand the determinants of suicides among women in India[1]. Present study was undertaken to study pattern of suicide among young females in Mullana, District Ambala, Haryana

MATERIAL AND METHODS

Present retrospective, descriptive study was conducted in Department of Forensic Medicine and Toxicology, MMIMSR, Mullana, District Ambala, Haryana. From October 2014 to October 2016, post-mortem records of the female victims reported to mortuary of MMIMSR Mullana were included. Strict confidentiality was kept regarding identity, medical and Forensic details of study subjects. Institutional ethical committee approval was taken. Post-mortem records of the females, from 16-45 years of age with suicidal deaths were included for study. Cases with suspicious manner of death other than suicide were not included. Autopsy reports, scene and post-mortem photographs and other case materials such as copies of the police scene investigation findings were studied. Findings and observations such as historical details, scene findings, findings of autopsy external and internal examinations, the results of the post-mortem investigations and the opinions and conclusions given were entered in a pre-designed proforma. Collected data was entered in Microsoft Excel worksheets and analysed using Statistical Package for Social Sciences (SPSS).

RESULTS

During defined study period, total 124 cases were fitting study criteria. Most of the cases were from age group 16-25 years (48%), followed by age group 26-35 years (33%) and age group 36-45 years (19%).

Table 1- Distribution according to age

Age Groups (in Years)	Number of cases	Percentage
16-25	59	48%
26-35	41	33%
36-45	24	19%
TOTAL	**124**	**100%**

When socio-demographic characteristics were compared most cases were from Hindu religion (79 %) and from lower socio-economic class.

Table 2- Sociodemographic characteristics

Characteristics		Number of cases	%
Religion	Hindu	98	79%
	Muslim	14	11%
	Christian	6	5%
	Sikh	5	4%
	Others	1	1%
Socio economic status	Lower	71	57%
	Middle	32	26%
	Upper	21	17%

Poisoning (36%) was most common method for suicide. Other methods for suicide were hanging (23%), burn (19%), drowning (15%), train (2%) and other methods (4%).

Table 3: Distribution according to method of suicide

Method of suicide	Frequency	Percentage
Poisoning	45	36%
Hanging	29	23%
Burn	23	19%
Drowning	19	15%
Train	3	2%
Other	5	4%
Total	**124**	

Family disputes (40%) was most common underlying cause for suicide in present study. Love affairs (15%), dowry related (14%), other (9%) and financial (6%) were other underlying causes for suicide. In 17% cases underlying cause for suicide was not known.

Table 4- Distribution according to underlying reason*

Underlying reason	Frequency	%
Family dispute	49	40%
Not known	21	17%
Love affairs	19	15%
Dowry related	17	14%
Other	11	9%
Financial	7	6%
Total		

(*- after considering all details)

DISCUSSION

In 2016, nearly 800 000 deaths were due to suicide, equivalent to an annual global crude suicide mortality rate of 10.6 per 100 000 population. Globally, for every female suicide death, there are nearly two male deaths (13.5 and 7.7 deaths per 100 000 population in men and women, respectively) [1]. Although suicide attempts are about two to four times more frequent among females, men are more likely to use lethal means, partly explaining the reversed pattern in suicide mortality rates[5]. In 2016, the highest

SDR among younger women were in the age groups of 15–29 years (range 26·7–33·1 per 1,00,000 women). Suicide deaths ranked first among all causes of death in women aged 15–29 years in 26 of the 31 states, and in women aged 15–39 years in 24 states[6]. In May 2013, the Sixty-sixth World Health Assembly adopted the first-ever Mental Health Action Plan of the World Health Organization (WHO). Suicide prevention is an integral part of the plan, with the goal of reducing the rate of suicide in countries by 10% by 2020[7]. The annual suicide rates reported from study from rural area of Tamil Nadu[8] were 71.0 and 53.0 per 100 000 for males and females respectively. Patel et al[9]. in their Million Death study reported 26.3 and 17.5 per 100 000 annual suicide rates for males and females respectively. Salve et al[10].in rural areas of Haryana reported 26.5 and 21.5 per 100 000 annual suicide rates for males and females respectively. Several theories of convergence and divergence of the men-to-women SDR ratio with modernisation have been tested globally based on the hypothesis that it affects men and women differently with conflicting results[11]. A previous attempt at understanding this relation for India using administrative data for suicide deaths was inconclusive[12]. Suicide ranks as the number one cause of mortality in young girls between the ages 15 and 19 years globally[13]. We observed that the incidence of suicide was high among individuals in the age group of 16-25 years (48%). Chettri R et al[14] noted maximum female suicides in 21–30 years age group (24.4%), Khan et al. [15] also reported similar findings. The association of suicide among the particular age group may be due to marital disharmony, unemployment, greater demands of life which could not be fulfilled, depression, and psychiatric illness such as schizophrenia[16].In a study by Soman et al.[17] in Kerala, it was observed that more than 50% of deaths occurred among females who were aged in between 15 and 24 years, which is in accordance with the present findings. Poisoning (36%) was most common method for suicide in present study. Poisoning is a major epidemic of non-communicable disease in the present century. Among the unnatural deaths, deaths due to poisoning come next only to road traffic accident deaths. In earlier times, the poisoning deaths from pesticides were mainly accidental but easy availability, low cost and unrestricted sale have led to an increase in suicidal and homicidal cases as well[18]. Family disputes (40%) was most common underlying cause for suicide in present study. Love affairs (15%), dowry related (14%), other (9%) and financial (6%) were other underlying causes for suicide. In 17% cases underlying cause for suicide was not known .It is almost a matter of day -to-day occurrence that not only married women are harassed, humiliated, beaten and forced to commit suicide, leave husband, etc., tortured and ill-treated but thousands are torched to death as parents are not able to meet the dowry demands of greedy in-laws or their husbands. The quality of marital relationship, emotional warmth, extended family support, and ability to handle stresses related to marriage and child rearing are more important than marital status, per se, but these qualifiers of marital status are difficult to study. Reduction of intimate partner violence will reduce suicidality in women. In the absence of sexual abuse, the female suicide attempt over lifetime would fall by 28% relative to 7% in men[19].Gururaj et al.[20] found that domestic violence was found in 36% of suicides and was a major risk factor (OR 6.82 CI – 4.02–11.94) in Bengaluru, India. In countries like India, Pakistan and Sri Lanka where arranged marriages are common, the social and familial pressure on a woman to stay married even in abusive relationships may be one of the factors that increases the risk of suicide in women[20]. Dowry-related suicides are not uncommon in India; when dowry expectations are not met young brides can be harassed to the point where they are driven to suicide[4].When dowry expectations are not met, the young bride may be killed or compelled to commit suicide, most frequently by burning, suicide by burning amongst women is a major concern in India as it has become pervasive throughout all social strata and geographical areas. In a cohort of 152 burned wives, 32 (21%) were immolation suicides, and were associated with dowry disputes, these suicides occurred 2–5 years after marriage. One reason for the lack of investment in female suicidal behaviour may be that there has been a tendency to view suicidal behaviour in women as manipulative and nonserious (despite evidence of intent, lethality, and hospitalization), to describe their attempts as “unsuccessful,” “failed,” or attention-seeking, and generally to imply that women’s suicidal behaviour is inept or incompetent. The SDG targets concerning noncommunicable diseases (NCDs) added reduction in suicide mortality rates as a major Indicator (3.4.2)[1].India launched its National Programme for Adolescent Health in 2014 that aimed to address mental, sexual, and reproductive health among other health needs[21].The programme has various indicators to track age at marriage and teenage pregnancies, depression, and gender-based violence, but does not explicitly mention suicidal ideation as an indicator, tracking of which is imperative given the study findings[22]. Also, The Protection of Women from Domestic Violence Act has been in place in India since 2005, and it would be prudent to understand the effect it has had on suicide prevention among married women.

CONCLUSION

Women’s lack of empowerment and both financial and emotional dependence have restricted their self-expression and choices in life. Several forms of gender role

differentiation and gender-based discrimination are possible reasons for high Suicidal Death Rates in women. There is a dire need to further assess the complex relationships between gender and suicidal behaviour to facilitate women-specific suicide prevention strategies.

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Source of Support: None Declared
Conflict of Interest: None Declared