STUDY OF PATTERN & PRECIPITATING FACTORS OF SUICIDES IN MALES IN VADODARA REGION OF GUJARAT

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ABSTRACT

Background & Objectives: Suicide is the most difficult to understand phenomenan. We may think, to take one's own life, there has to be a "great" reason. But it has been observed that person often commit suicide for "trivial" causes. Traditionally, it is believed that males are more tolerant to stress than females. But in modern times, gender differences in everything, including rates of suicide and factors responsible for suicide are narrowing. **Method:** So, this study was undertaken at SSG Hospital, Vadodara, between 1st January 2013 to 31st December 2013, for a period of 1 year. All the Male cases of suicide were taken in to study, a structured questionnaire was asked to the friends and family accompanying the dead body, and the data were then analyzed. **Results & Conclusion:** The most striking of the results were - 74% cases belonged to middle aged group, 61 % were married/divorced, 87% committed suicide within the home and hanging was preferred by 64%. In contrast to NCRB data, where in only 12% cases, no precipitating factor was known, in our study, in 46 % cases exact precipitating factor could not be known. Which signifies that still more intensive interviews with more close relatives is required.

Key-words: Unnatural death, Suicide, Males, Autopsy.

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INTRODUCTION

The gender gap in suicide, is known as "gender paradox of suicidal behaviour", vary widely among different countries. Statistics determine that males die by suicide far more frequently than females; But other study suggests the prevalence of suicidal ideation was higher among females than among males.[1] Higher male suicide rates are explained by traditional gender roles. Male gender roles emphasize greater levels of strength, independence, and risk-taking behaviour.[2] Reinforcement of this gender role often prevents males from seeking help for suicidal feelings and depression.[3] Hence, we conducted this study in our mortuary complex during the period of one year to understand this gender gap in suicide, pattern in male suicide victims and to identify the precipitating or causal factors of suicide in males in the Vadodara region of Gujarat.

MATERIAL & METHODS

The current prospective study was undertaken at our mortuary complex during the period of one year from 1st January 2013 to 31st December 2013 after taking due permission. All the Male cases of suicide were taken in to study, based on inclusion & exclusion criteria as mentioned below, were selected. Relatives, Friends, etc. accompanying the dead body were informed about the study, and written informed consent was taken to use the data arising out of the questionnaire to be used for publication with mentioning the names of victims. Then a structured questionnaire was given to the friends and family accompanying the dead body, and the data were then analyzed using an MS Excel worksheet.

Inclusion criteria

1. All cases of suicide with history of suicidal death like Hanging, Poisoning and Burns, which are confirmed suicide cases based on circumstantial evidences, inquest and autopsy findings were selected.
2. Cases with residence in Vadodara (Mid-Gujarat) region were selected.
3. Only Male cases were selected from the above mentioned cases.
4. Cases were selected only if reliable informants like immediate family members, co-workers or close friends were available for questioning.

Exclusion criteria

1. Cases were relatives not willing to give written informed consent were excluded.
2. Unattended and Unidentified cases were excluded.
3. Cases where doubts are raised by investigating officer about the manner of death, like suspicion of suicide or homicide, were excluded.
4. Cases not satisfying the inclusion criteria were excluded.

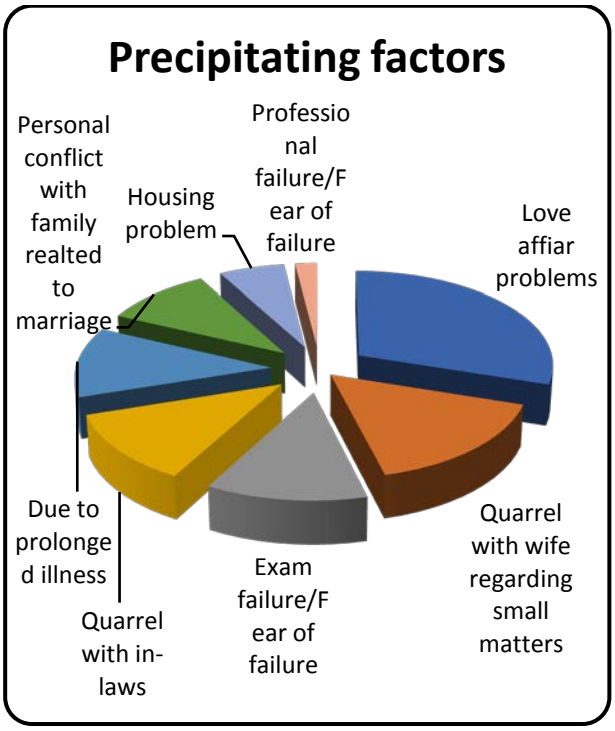
RESULTS

Total 122 cases of male suicide were satisfying the inclusion criteria for the present study and out of them 12 cases (9.8%) were less than 18 years of age, while 90 cases (73.7%) were between 18-45 years of age and rest 20 cases (16.3%) were more than 45 years of age. The majority (96.7%) of the victims were Hindu while only 3.3% cases were Muslim. Out of total 122 cases, 2 (1.6%) males were Illiterate, 74 (60.6%) were having education <10th standard and 36 males (29.5%) did their graduation, while only 8.1% males were having education above their graduation. Out of 122 cases, 2 (1.6%) were Unemployed, 2 (1.6%) were sweepers (class-4), 20 (16.3%) were students, 4 (3.3%) were retired and having no current job, 26 (21.3%) were laborers (including Field/farm laborers), 18 (14.7%) were having contract job in government sector, 27 (22.1%) were having their own business, 10 (8.1%) were farmers while 13 (10.6%) were having some private jobs. The majority of the victims (57.4%) were married and 4 were either engaged or committed followed by divorced in 3.3% cases, widowed in 4.91% cases and rest 31.1% victims were Unmarried.

The most of the victims (86.9%) committed suicides within their home and only 13.1% committed suicide outside their home in some open place like a farm,

workplace, etc. Suicide note was found only in 6 cases and in one case the note was written on the hand of the victim. The method of suicide opted by the victims in the present study were Burns (4.90%), Hanging (63.9%) and Poisoning (31.1%). Out of 78 hanging cases 18 victims used shawl/towel/other cloth, 59 used ropes and 1 used other material as ligature material. Out of 38 cases of poisoning 35 ingested household Organophosphorus compounds. Family history of suicide was positive in 6 cases and history of previous verbal threats to commit suicide were present in 39.3% cases. Suicide was also previously attempted by poisoning himself in 6 cases (4.9%) and out of these 6 cases, 2 completed suicide by poisoning, 3 by hanging and 1 by burning himself.

Signs of psychiatric illness were present in 3 cases (2.4%) who were diagnosed schizophrenia, 1 (0.81%) was diagnosed as bipolar mood disorder, 7 (5.73%) were under treatment for any unknown psychiatric problem (exact condition not known to the history provider). In 22 (18.03%) cases, relatives or friends told that there were some signs of depression in the person before committing suicide. History of substance abuse was positive in 8 cases and 7 were chronic alcoholic for more than 5 years and one had Marijuana addiction for >10 years. In 3 cases there was a history of traumatic childhood due to early unnatural death of mother in two cases and one was having abusive father. Only in 66 cases, some precipitating factor was known, which was love affair problems in 12 cases (9.83%), economic constraint in 19 cases (15.57%), quarrel with wife in 8 cases (6.55%), exam failure/Fear of failure in 6 cases (4.90%), **h**ousing problem, e.g., big family living in small house in 3 (2.45%) cases, inter personal conflict with family regarding marriage in 5 cases (4.09%), prolonged illness in 6 cases (4.90%), quarrel with in-laws in 6 cases (4.90%), professional failure/ fear of failure in one case (0.81%). No precipitating factor was ascertained in 56 cases (45.9%).



DISCUSSION

As per NCRB data, on average, male suicide rate is twice that of females in India. However, there is a wide variation in this ratio at the regional level. West Bengal reported 6,277 female suicides, the highest amongst all states of India, and a ratio of male to female suicides at 4:3,[4] which corresponds to our study. Male to Female ratio in our study was 5:2.5, which shows higher male suicide (61%) rates than females, and the majority (74%) belonged to middle aged group (18-45 yrs). This is however in contradiction to western data where females commit less suicide than Indian females, so the ratio is narrow compared to western countries and

in contradiction to Banarjee et al[5] who studied the vulnerability of Indian women. They found that the incidence of suicide was 43/100,000 in Bengal and that woman (79.3%) outnumbered men. 75% of the victims were under 25 years of age.[5]

In our study, 76 (62.3%) cases had education less than 10th standard, at the same time 10 (8.19%) cases had education above graduation. 20 (16.3%) cases were students, 26 were (21.3%) labourer (including Field/farm labours), 18 (14.7%) contract job in the government sector, 27 (22.1%)- Own small business,10 (8.1%)- Farmers, 13(10.6%) - Private jobs. This is consistent with almost all previous researchers' data signifying a good education & a stable job as a mainstay of suicide prevention. And In our study, almost 87% cases committed suicide within the comfort of their own home while only 13% committed suicide at places like, workplace, farms or other open place.

In our study, Hanging (64%) was detected as the preferred method of suicide by males, which is consistent with reported different methods used by each gender. Although females attempt suicide at a higher rate, they are more likely to use methods that are less immediately lethal. Males frequently complete suicide via high mortality actions such as hanging, carbon-monoxide poisoning, and firearms. This is in contrast to females, who tend to rely on drug overdosing.[6] In Europe, where the gender discrepancy is the greatest, a study found that the most frequent method of suicide among both genders was hanging; however, the use of hanging was significantly higher in males (54.3%) than in females (35.6%). However, in Western countries the second most common methods were firearms (9.7%) for men, due to easy availability of firearms than in India and poisoning by drugs (24.7%) for women.[7] In our study, second most common method for males was ingestion of poison (31%) followed by self-immolation.

In the present study, 48 (39%) cases, verbal threats to commit suicide were present. Previous attempts of suicide by 6 (4.9%), all of them tried ingestion of poison. Out of these 6, 2 completed suicide by Poisoning, 3 by Hanging and 1 Burnt himself. These findings somewhat consistent with Bagadia et al[8] out of 521 patients admitted for suicidal behaviour - 18% communicated about the attempt while the majority of women (76.1%) attempted suicide in the presence/proximity of others. Previous attempts were reported in 7% with 2.4% having more than one previous attempt. Depression (39.73%), schizophrenia (24.4%) and hysteria (14%) were the most common psychiatric diagnosis present. History of substance abuse was positive in 8 cases and 7 of them were alcoholic for more than 5 years & one had Marijuana addiction for >10 years. Three victims had a history of traumatic childhood due to early unnatural death of mother and abusive father.

In our study, signs of psychiatric illness were present in 2.4% cases and 2 diagnosed schizophrenia under treatment, 1 (0.81%) - diagnosed Bipolar mood disorder, 7 (5.73%) - under some psychiatric problem (exact condition not known to the history provider). In 22 (18.03%) cases, relatives or friends thought there were some signs of

depression in the person. These numbers of diagnosed / suspected cases are quite low as compared with Gupta and Singh[9] who reported psychiatric disorders in 62% with 58% having abnormal personalities. Mahla, et al[10] investigated attempted cases of self immolation and reported that the behavior was associated with the presence of psychiatric and personality disorders. Jain, et al[11] also found that 37.5% of the suicide attempters had a diagnosis of depression, 39.28% of the subjects showed mild to moderated suicidal intent and 16% of them had a high score on the hopelessness variable. Badrinarayana[12] found a positive and significant correlation between depressive illness, suicidal ideation with early parental deprivation, recent bereavement and positive family history of suicide. Similarly Srivastava and Kulshreshtha[13] reported a positive correlation between severity of depression, being married, being employed, being male, prior history of treatment in a mental hospital setting, more than a month's duration of illness and age being less than or equal to 35 years.

Genetic factor will also be taken into consideration, because, there are a number of reports on genetic and hereditary link with suicide have been published by Andrej M & Anne F et al.[14] In our study, Family history of suicide was positive in 3 cases. Order of Birth - Out of 106 cases 24 (22.66%)-1st born, 48 (45.28%)-2nd born, 34 (32.07%)- 3rd or higher born. In our study, Precipitating factors were- Economic constraint -19 cases (15.57%), Love affair problems - 12 cases (9.83%), Quarrel with wife on small home matters- 8 cases(6.55%), Exam failure/Fear of failure- 6 cases(4.90%), Housing problems e.g., big family living in small house -3 (2.45%) cases, Inter personal conflict with family regarding marriage - 5 cases (4.09%), Due to some prolonged illness - 6 cases (4.90%), Quarrel with in-laws -6 cases (4.90%), Professional failure/ fear of failure -1 cases (0.81%).As per data of NCRB - Most common reason for suicide was Family Problems, followed by Prolonged illness, Mental illness, Marriage related problems, Love affairs & Bankruptcy.[15] This data is broadly in contradiction with our findings. The most striking observation regarding the cause was that in NCRB data only 12.4% cases were unknown, as compared to 45.9% in our study.

Conflicts of Interest : None.
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REFERENCES

1. Gender Difference in Suicide – Wikipedia, Information - Retrieved on 22/06/15 https://en.wikipedia.org/wiki/Gender_differences_in_suicide
2. Payne S, Swami V, Stanistreet DL. The social construction of gender and its influence on suicide: a review of the literature. J of Men's Health. 2013;5 (1): 23–35.
3. Möller-Leimkühler, Anne M. The gender gap in suicide and premature death or: why are men so vulnerable? European Archives of Psych and Clin Neurosci. 2003; 253 (1): 1–8.
4. NCRB data on gender gap - http://ncrb.nic.in/CD-ADSI-2012/suicides-11.pdf - Retrieved on 05/09/2016.

5. Banerjee G, Nandi DN, Nandi S, Sarkar S, Boral GC, Ghosh A. The vulnerability of Indian women to suicide. A field study. Indian J Psychiatry. 1990; 32: 305–8.
6. Schrijvers, Didier. "The gender paradox in suicidal behaviour and its impact on the suicidal process". Journal of Affective Disorders. 203;138 (2): 19 -26.
7. Varnik A, Kõlves K, Vander Feltz-Cornelis CM, Marusic A, Oskarsson H, Palmer A. Suicide methods in Europe: a gender-specific analysis of countries participating in the European Alliance Against Depression. Journal of Epidemiology and Public Health. 2008; 62 (6): 545–551.
8. Bagadia VN, Abhyankar RR, Shroff P, Mehta P, Doshi J, Chawla P, et al. Suicidal behavior: A clinical study. Ind J Psych. 1979; (21): 370–5.
9. Gupta SC, Singh H. Psychiatric illness in suicide attempters. Indian J Psychiatry. 1981 (23): 69-74.
10. Mahla VP, Bhargava SC, Dogra R, Shome S. The psychology of self immolation in India. Indian J Psychiatry. 1992; (34): 108–13.
11. Jain V, Singh H, Gupta SC, Kumar S. A study of hopelessness, suicidal intent and depression in cases of attempted suicide. Indian J Psychiatry. 1999; (41): 122–30.
12. Badrinarayana A. Study of suicidal risk factors in depressive illness. Indian J Psychiatry. 1980; (22): 81–3.
13. Srivastava S, Kulsreshtha N. Expression of suicidal intent in depressives. Indian J Psychiatry. 2000; (42): 184–7.
14. Andrej M, Anne F, Genetic risk factors as possible causes of the variation in European suicide rates. The Br J of Psych 2007; (179): 194-196.
15. Suicide in India - https://en.wikipedia.org/wiki/Suicide_in_India. - retireved on date - 22/06/2016.