DEMOGRAPHIC TRENDS OF SUICIDE IN RELATION TO A TERTIARY CARE HOSPITAL IN A STATE OF INDIA

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ABSTRACT: In the modern era of globalization, the quest for better life has gone to such an extent that people are getting demoralized and frustrated easily by failures, though they may be trivial in nature. The results of such factors accumulate into a steady increase in the incidence of suicide day by day. The present work concentrates around this issue of human loss considering different demographic data in this cross sectional study. Authors have gathered an extensive data from post mortem records and interviews and have shown that suicide is more common among the females and young adults. Dowry deaths including torture by the in law's still tops the list as aetiology for the females. Low economy, lower education level accounts for this tragedy. Poisoning and burning consists more than half of the cases as far as the mode of deaths are concerned.

INTRODUCTION: Like any research, study of different factors behind suicide primarily needs a definition of the title. W.H.O. came up with a definition of 'Suicide Act' that states 'a self – inflicted injury with varying degrees of lethal intent and awareness of motive'. This criterion is sufficient to distinguish suicide, from other deaths, which are either inflicted on self unconsciously. Suicide worldwide is estimated to represent 1.8% of the total global burden of disease in 1998, and 2.4% in countries with market and former socialist economies in 2020¹.

India also faces the threat of manpower loss due to such human actions. Among the last few years the suicide and suicidal attempt rates have gone very high. These are quite evident from the data that we get from the Newspapers and different electronic media. But a concrete study regarding this threat is invariably lacking.

MATERIAL AND METHOD: In the present work material consists of human subjects with established history of commission of suicide.

Criteria for case selection: The quality of data on suicide mortality is considerably associated with the procedures underlying the ascertainment of a suicide. This is a two stage process: first the death has to be recognized as being due to other than natural causes; second, it has to be established that it was caused by a deliberate act of the deceased with the intention of ending his or her own life. For this purpose following will be the criteria for present study.

- 1) Death registered or reported as a case of suicide to police and legal authorities.
- 2) Death suggestive of suicide by detailed postmortem examination.
- 3) Cases with suicidal notes.

Collection of data: Materials were obtained from –

- 1) Cases coming directly coming to the R.G. Kar Police Morgue.
- 2) Cases dying in the government or private hospital and then coming to the R.G. Kar Police Morgue.

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The study of unknown cases brought to the R.G. Kar Police Morgue is limited to the postmortem findings only.

An extensive history taking was done in each and every case from their family members among the known cases.

RESULTS: Different demographic variables were considered for the present study. It started from the age-sex distribution and was distributed over the field of different sociological data up to the etiology and mode of suicides.

Year	Total number of suicide cases
May '10- Dec'10	38
Jan '11- dec'11	109
Jan'12-Dec '12	211
Total	358

TABLE 1: Total number of suicidal deaths in preceding three years

tal cases studies	358
Number of male subject	106
Number of female subject	252

TABLE 2: Sex differentiation of subjects

Age	Total No. of cases	Percentage
Less than 15 years	18	5.02%
16 – 25 years	185	51.67%
26 – 35 years	106	29.60%
36 – 45 years	35	9.77%
46 – 55 years	9	2.51%
56 – 65 years	2	0.55%
More than 65 years	3	0.83%
Total	358	100%

TABLE -3: Age wise distribution of the subjects

Age	Male	Female
<15yrs	3	10
16 to 25 yrs	39	123
26 to 35yrs	29	69
36to 45 yrs	20	23
46 to55yrs	7	10
56 to 65yrs	5	10
>65 yrs	3	7
Total	106	252

TABLE – 4: Age-sex distribution of the subjects

Professional	No. of cases	Percentage
Retired	2	1.88%
Service	16	15.09%
Student	10	9.43%
Unemployed	21	19.81%
Self employed	40	37.73%
Others	17	16.03%
Total	106	99.97%

TABLE-5: Profession wise distribution of study subjects (Male)

Professional	No. of cases	Percentage
Retired Person	0	0%
Housewife	96	38.09%
Service	21	8.33%
Student	46	18.25%
Self-employed	33	13.09%
Other	56	22.22%
Total	252	100%

Table 6: Profession wise distribution of subjects of study (Female)

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Educational level	No. of cases	Percentage
Diploma	3	0.83%
Graduates	6	1.67%
Primary education	80	22.34%
Middle	86	24.02%
Matriculate	50	13.96%
Higher Secondary	4	1.11%
Post graduate and above	29	8.10%
No education	100	27.93%
Total	358	100%

TABLE- 7: Educational level of the subjects

Income groups	The no. of cases	Percentage
Low	65	18.15%
Lower middle	214	59.77%
Upper middle	56	15.64%
Upper	23	6.42%
Total	358	100%

TABLE – 8: Economic status of the subjects

Status	Male	Female	Total Percentage
Unmarried	9	23	9.16%
Married	71	170	67.5%
Divorced /Separated /deserted by the husband or wife	12	32	11.67%
Widow /Widower	14	27	11.67%

TABLE- 9: Marital status of the subjects

Etiology	Male	Female
Dowry deaths including torture by in law's	0	115
Marital disharmony	20	40
Financial trouble including unemployment	17	6
Endogenous depression and other psychiatric illness	17	26
Betrayal in love affairs	5	6
Illicit relation of spouse	3	10
Failure in examinations	5	14
Distressing physical illness	15	4
Neglect by family members	15	23
Broken family	1	0
Others	8	8
Total	106	252

TABLE-10: Etiology of suicide among the subjects

Mode	Male	Female	Total %
Poisoning	66	72	38.55%
Burning	10	106	32.40%
Hanging	16	30	12.85%
Drowning	04	12	04.47%
Others	10	32	11.73%

Table-11: Mode of death of the study subjects

DISCUSSION: In the present study 358 cases were taken for consideration. These cases came from various parts of Kolkata and some districts of west Bengal. The current observations of the present study have been reflected in the following tables. During the period of study (May 2010 – Dec2012) the female suicides were nearly double with respect to the males among the developed countries. Female suicide rates are higher than males in all age groups.

Out of the 358 subjects the median age group was found to be between 16 to 35 years. This is consistent with the findings of B. L. Meel². Children of either sex are 10 -20 times less likely to die by suicide, and teenagers are 1.5 -2 times less likely than adults of the same sex that is suicide rates increase with age³. But the male-female ratio is more or less 1:1 in the middle and the older age groups. The 16 to 25 year age group is the most vulnerable one for suicide. So, as for age, there is a clear tendency for suicide rates to increase with age.⁴

Taking the etiology into consideration most cases are of dowry related where prolonged torture by in-laws played a pivotal role in compelling the bride to take away her own life. Most of the victims are married. Neglect by the younger family members was a key factor for suicide in older person. Failure of examination was a major etiology for committing suicide in young age group. A good number of suicides suffer from some psychological disorder. Depression, either unipolar or as part of bipolar disorder, is an especially common cause.

Suicide levels are high among the retired, unemployed, divorced, and other people who live alone. Suicide rates also rise during times of economic uncertainty (although poverty is not a direct cause). Epidemiological studies generally show a relationship between suicide or suicidal behaviors and socio-economic disadvantage, including limited educational achievement, homelessness, unemployment, economic dependence and contact to police or justice system. Frequently, suicidal behaviors in young people appear to be a consequence of adverse life sequences in which multiple risk factors from these domains combine to increase risk of suicidal behavior⁵.

Consumption of poison is still the most common method adopted by the victims, followed by burn. Here, the fact to be remembered is that, a large fraction of poisoning cases get treated by hospital, not in being in fatal outcome. The pattern or the methods of committing suicide is also likely to change over a period of time depending on the availability of methods to people

CONCLUSION: The biggest contributors to the absolute number of suicides in the world are China and India.⁶ At the end it may be said that the study carried out by the author is neither easy nor noncontroversial but it is likely to open the door for carrying on constant reconsideration and evaluation of the problem for its improvement and throw light on the present state of darkness.

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