

## Original Article

# Pattern of suicide in Bangladesh: A retrospective study

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### Abstract

**Background:** The most important global cause of mortality is suicide. Global suicide rates have increased 60% in the last 45 years. Unnatural death is one of the indications of social and mental health in a society. It is often neglected by researcher, health professionals, health policy makers and the medical profession. Unnatural death by suicide relates to multiple factors eg. low socio-economic condition, dowry system, lack of education, failure of love, poverty etc. Shooting, hanging and stabbing are a hard way of committing suicide and typically a male choice. Poisoning and drowning are soft way of committing suicide and typically a female choice. This article was aimed to find out the pattern and demography of suicidal death. **Materials and method:** To find out the pattern of suicidal death, a retrospective data was collected from the records of Forensic Medicine Department in Sir Salimullah Medical College, Dhaka for the period of 1 year from January 2021 to December 2021. **Objective:** The objective of this study was to find out pattern and demography of suicidal death, its distribution according to age, sex, common method used by victims and in this way try to identify the causative factors and develop the preventive measures that are essential to reduce suicidal death. **Results:** The commonest methods of committing suicide were found hanging which was 60.3%, followed by poisoning 26%, burn 1.34%. Most of the victims (25%) were from the age group 1-15 years. Out of 328 cases 170 (52%) were male and 158 (48%) were female. Among them 196 (59.8%) were married and 132 (40.2%) were unmarried. Most common poison was Organo Phosphorus Compound (OPC). **Conclusion:** To reduce the number of suicide a well designed and comprehensive program is needed which will identify the causative factors and which might help in prevention of suicide.

**Introduction:** Suicide usually means self destruction. Suicide occurs throughout the world. It can be defined as ruin or harm suffered by a person, society etc on account of his own action. Suicide may injure themselves in different ways, some bizarre in the extreme. Suicide is one of the forms of criminal offence in our country and it is also prevailing in other countries of the world. In every country suicide is considered a social stigma. The gradual increase in the trend of suicide in the modern world poses a great social and human problem. Whenever attempts to commit suicide and does any act towards the commission of such offence, shall be punished with simple imprisonment for a term and may extend upto 1 year or with fine or with both. This increasing trend

of suicide can be minimized to a certain extent with the help of psychiatric experts and experts in social medicine. It also constitutes an important medico legal problem and hence all suspected cases of suicide should be thoroughly investigated by forensic pathologists, forensic scientists as well as other investigating agencies. Investigations are sometimes confused in complex and bizarre cases of suicide.<sup>1</sup>

Global suicide rates have increased 60% in the past 45 years. Over one million people die by suicide worldwide each year. The global suicide rate is 16 per 100000 populations. On average, 1 person dies by suicide every 40 seconds somewhere in the world. 1.8% of worldwide deaths are suicides.<sup>2</sup>

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Availability of specific means for suicide affects national patterns in the methods used. In the USA, firearms are used in most suicides, with risk of their being highest where guns are kept in household<sup>3</sup>. In general men tend to choose more violent means (hanging or shooting)<sup>4</sup> and woman less violent methods (eg. Self poisoning. In rural areas of many developing countries, ingestion of pesticides is the main method of suicide, reflecting toxicity, easy availability and poor storage. As many as 30% of global suicide deaths might involve ingestion of pesticides<sup>5-6</sup>. In our country the incidence of suicide is increasing day by day. Unfortunately we are considered as the 3rd world developing nation with high rate of birth, mortality and morbidity and the higher population growth rate.

Hanging goes in favour of being suicidal in nature. Both sexes are equally prone and incidence in both sexes are more or less same.<sup>7</sup> Suicide by road traffic injury has been investigated by Mohanti. The suicidal attempt can be made by aiming the vehicles or by smashing the car against an obstacle at the side of the road-a tree or utility pole. The car may be driven on to rail road tracks to be run over by an coming train. Leaps into the path of a moving car or from or over bridge into traffic have also been reported<sup>8</sup>. The cunning suicide perhaps with the intention to defraud an insurance company or through suspicion or an innocent person by way of revenge, may plan his death in a manner which suggest homicide. Higher population pressures directly and effects on countries low socio economic growth, lack of education, unemployment and poverty. As a result the number of suicidal deaths increases day by day. Although mortality of a man breaks down under certain conditions like social and economic insecurity, social stigma etc<sup>9</sup>. The causes of suicides are not only related with the victims but also associated with other factors. Now-a-days different papers publish the incidence of suicide with due importance though many cases are not reported due to social stigma, fear and prestige of the family. In fact, the suicidal death cases are much higher than the cases recorded by authority.

### Materials and method

It is a retrospective study carried out in the department of Forensic Medicine in Sir Salimullah Medical College from January 2021 to December

2021. The various characteristics of the cases and their medicolegal aspects were collected from the relative of the victim, police papers, postmortem and chemical examiner's report from Forensic Medicine Department, SSMC.

### Result

Total 378 cases were brought by different police station of Dhaka city for post mortem examination to Forensic Medicine Department, Sir Salimullah Medical College. Out of them total number of suicidal death were 328. Among the suicidal victims 52% were male and 48% were female. 56% of these victims have committed suicide by hanging themselves. About 24% committed suicide due to poisoning 4.41% with fire on the body. 25% of those who commit suicide were under 15 years of age. About 38% were 16-30 years old, 22% were 31-45 years, 10% of 46-60 years and 5% over 60 years of age.

**Table 1 : Shows the distribution of the case according to sex**

Sex	No. of cases	%
Male	170	52%
Female	158	48%
<b>Total</b>	<b>328</b>	<b>100%</b>

**Table 2: Shows the frequency of method used in suicidal death**

Method	No. of cases	%
Hanging	183	56
Poisoning	78	24
Burn	21	6.34
Drowning	18	5.60
Firearm	16	4.41
Cut throat	12	3.65
<b>Total</b>	<b>328</b>	<b>100</b>

**Table 3: Suicidal deaths according to marital status**

Marital status	No. of cases	%
Married male	34	10.4
Married female	162	49.4
Un married male	55	16.8
Un married female	77	23.4
<b>Total</b>	<b>328</b>	<b>100%</b>

**Table 4: Suicidal deaths according to the age**

Age	No.of cases	%
1-15	82	25
16-30	125	38
31-45	72	22
46-60	33	10
>60	16	05
<b>Total</b>	<b>328</b>	<b>100</b>

**Table 5: Suicidal deaths according to cause**

Cause of suicide	Number of cases	%
Poverty and family problem	185	56.40
Failure in exam and love affair	112	34.14
Drug addiction	10	3.05
Unknown	21	6.41
<b>Total</b>	<b>328</b>	<b>100</b>

### Discussion

Suicide is increasing day by day. According to the Bureau of police research and development, number of suicides has been increasing continuously in Bangladesh than the previous year. Our study shows that out of 378 cases, there are 328 cases of suicide amounting to 86%. According to the police statistics from January to December 2021 among the suicidal victims 52% were male and 48% were female. This study showed that suicidal hanging is one of the major causes of unnatural death in our country. In our country suicidal death was observed in all age group, but majority were within 19-30 years age group.<sup>10</sup> This is the most active period of one's life and there are great fluctuation of emotions of this group. Young people get frustrated due to various reasons such as unemployment, poverty, failure in examination, failure of love, excessive mobile addiction etc. Suicide are constantly happening in different parts of the country due to such trivial reasons. From January to June, police across the country recorded suicide among teenagers and young people who did not buy mobile phone and had a little quarrel with parents. All these causes form the motivational factors to terminate their lives.

Suicides were not only diagnosed clinically but also circumstantial evidence given by the relative and investigating agencies. Our study shows hanging is one preferred means of committing suicide in this subcontinent followed by poisoning differs from the

study of Sharma et al<sup>11</sup>. However death by hanging may be accidental or even homicidal. The condition is very rare. Suicide is increasing day by day. Suicides apart from hanging and poisoning may use some of the other methods such as stabbing, cutting, firearm and explosives, jumping from height, burn, suffocation by plastic bags, electrocution, road and railway injuries, drowning. Suicidal knife wounds may be incised and stab wounds are self inflicted either from victims of self destruction, from mental aberrations or by deliberately for some form of gain. Suicidal knife wounds are those, whose site and range are within the reach of the deceased suicidal cut throat usually has the trial of incision. Deliberate cutting of the wrist is rarely effective the sole method of suicide. In case of suicide by firearm there are certain site of selection which are predominantly over the throat, the wrist and the front of the chest. The weapons must be present at the scene<sup>12</sup>. There may a suicidal note left behind.

There should be a motive for committing suicide. We found that most of the victims were committing suicide by hanging is more prevalent among the females. This may be due to the fact that there are too many influencing or provoking factors like lack of family bonding, emotion, sentiment, poverty, dowry agreement, 2<sup>nd</sup> marriage of the husband, failure of love, pregnancy resulting from rape, failure in examination, eve teasing etc which eventually lead to suicidal attempts<sup>13</sup>. The incidence of sexual harassment and eve teasing in Bangladesh are rapidly increasing. The young or teen aged girls usually commit suicide in order to escape from sexual harassment or eve teasing. In recent years in India the researchers have documented the prevalence of physical, sexual and emotional abuse, association between violence and physical and mental health<sup>14</sup>. In our study majority were married. Marital disharmony was the commonest cause. In our country males are predominantly earning member of the family and husbands torture or harass the wives for various family problems including dowry. The female members have low frustration tolerance level and weak protective value in social institute like family especially in low socio economic condition. Due to repeated physical and mental torture, sometimes they go beyond the threshold level of self control and commit suicide. In case of male; poverty, lack of job, failure in the examination, illness, family

problems, defamation, drug addiction like alcoholism are the main reasons for suicidal hanging. These causative factors are similar to those in India. A five year study (1998-2002) in Turkey also showed that hanging is the commonest method of suicide in Istanbul. A study in Lithuania has shown that a total of 8324 suicides were committed during 1993-1997 and 7823 between 1993-2002. Among all these registered suicides cases, hanging was the commonest method used to commit suicide<sup>15</sup>.

Suicide by self emollition is indeed rare since most people, unless of unsound mind are well aware of the terrible pain which must follow this course. It was once a custom among certain religious group, for a widow to cast herself into the funeral pyre of her dead husband. It was an inhuman ritual and now it has been prohibited. Suicidal burning are still sometimes documented now a days. In autopsy series by Gupta 9.34% were burnt cases, number of female and male cases we 345 and 53 respectively.<sup>16</sup> Kitchen was the most frequent place of incidence. Circumstances of death were accidental, suicidal an homicidal. Our study showed that suicide by burning was 6.34% where the commonest method of suicide in India was burning 38.8%. Suicide by burning is most prevalence in Northern India specially in Delhi. Suicidal electrocution is still uncommon. Organo phosphorus compound more commonly used suicidal poison. The number of cases due to dowry death has reached such a high proportion in recent years that the Government is trying to find ways and means of resolving the problem.

Abetment of suicide is an offence and punishable under the section 306 and attempt to commit suicide under section 309. Whoever attempts to commit suicide is liable to be punished with imprisonment of upto 1 year or with fine or both<sup>17</sup>. If the victim survived she/he could be charged of attempted suicide. Though the punishment is defined as such in the penal code, usually in such cases they are detained under probation and no punishment is given. Provocative suicide is also an offence under the section 305,306. Whoever provokes a person to commit suicide than the provocator is liable to be punished with an imprisonment of upto 10 years or fine or both. Abetment of suicide of child or insane person the punishment is 10 years imprisonment.<sup>18</sup>

## Conclusion

Suicide is the form of criminal offence which is prevailing all over the world. Unfortunately it is also increasing day by day in our country. A well designed and comprehensive program is needed to identify the causative factors and prevention of suicide. To prevent suicide, status of mental health and social wellbeing should not be ignored. To improve the mental health status family bonding, proper education, sex education, self awareness and counseling may play important role. There should be proper employment facilities for the youth and involvement of young population in encouraging activities may reduce the rate of suicide in future.

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There is no conflict of interest.

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