

Retrospective Case Series of 376 Hanging Suicides in Bangladesh : Epidemiological and Forensic Perspectives

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ABSTRACT

Background: Suicidemeans self destruction. One can takes up any method to cause harm to himself. In Bangladesh there are different methods like ingestion of poison, hanging, drug overdose and in other countries most prevailing methods are gunshot. Suicide by hanging is common in Bangladesh. This study was done to identify the socio economic factors, other associated factors and post mortem examination finding of hanging cases.

Material and methods: This retrospective study was conducted among victims of hanging brought to Dhaka Medical College morgue during the period January 2015 to December 2015. Various identification data of the victim like age, sex, marital status, permanent address, suspension of dead body along with places of incidence, time and suspected causes of death were noted from the inquest report accompanying the dead bodies.

Results: A total 376 cases of hanging was examined. Maximum no. of cases were within the age limit of 21-30(36%) there were male predominance 208(55.32%) associated features of hanging we found maximum due to family disputes 110(29.3%) most of them used soft material as ligature material 245(64.6%).

Conclusion: The high incidence of hanging in young male adults impose a serious effect in our economy.

KEY WORDS

Hanging; Poison; Suicide; Victim.

INTRODUCTION

Suicide in Bangladesh is mostly neglected public health problem. This negligence leading to increasing number of suicidal cases across the country. According to a report by The Daily Star, from 2002 to 2009, 73,389 people committed suicide in Bangladesh. Of these 73,389 people, 31,857 people hanged themselves and 41,532 swallowed poison to commit suicide.¹ People causing self harms by different methods. Suicide by hanging is one of the most commonest method among

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all methods. According to police statistics, from 2002 to 2009, 73,389 people committed suicide in Bangladesh. Of these 73,389 people, 31,857 people hanged themselves and 41,532 swallowed poison to commit suicide.² Hanging is an asphyxia death which is produced by pressure over the neck area. Minimum pressure required to produce asphyxia is 2 kgs. A small rope around the neck may render a person unconscious in 15 seconds, making it a painless and quick death option.³

Hanging means The suspension of the body by a ligature that encircles the neck, with the restricting force being the weight of the body itself, produces death by asphyxiation.⁴ A person can hang himself either partially or wholly. When any part of the body touches the ground is called partial hanging and when there is no connection between body and ground it is called complete hanging.⁵ All cases of hanging are considered to be suicidal until the contrary is proved.⁶

Hanging produces painless death in person and it is cost effective as only ligature material is required. More common in Bangladesh because most of the population is living below poverty limit. They have scarcity of job, drug addiction, family problem, mental problems and there is easy availability of the ligature material used. Passion, disappointments, loss of property, misfortune, financial losses, poverty, disgust with life, physical and mental sufferings, religious mania, unhappy love, failures in many aspects, marital problems, jealous, unbearable fear and pain are some of the commonly

known reasons for hanging. These will vary widely from country to country, between religions and socio-economic classless. This study was done to identify the socio economic factors, other associated factors and post mortem examination finding of hanging cases. Marital problems is the leading cause in developing countries like Bangladesh.⁷

METHOD AND MATERIALS

This retrospective study was conducted among victims of hanging brought to Dhaka Medical College morgue during the period January 2015 to December 2015. Various identification data of the victim like age, sex, marital status, permanent address, suspension of dead body along with places of incidence, time and suspected causes of death were noted from the inquest report accompanying the dead bodies. The preliminary investigating report submitted by the police (inquest report) played very important role in this regards. Other related information were gathered from the victims attendants. Points regarding knot of ligature material, injury to neck structures, stomach condition were noted during post mortem examinations.

RESULTS

Total number of hanging cases were 376. The maximum number of cases were found in the group of 21-30 years (36%) (Table-I). Male outnumbered the females in total number of hanging cases 208(55.32%) (Table-II). Associated features for hanging was found family dispute 110(29.3%) (Table-III). Most of the cases they used soft material 245(64.6%). External findings of hanging cases there was dried marks of dribbling saliva 376(100%). Internal findings parchmentization was found in the all cases 376(100%).

Table I Age Distribution of suicide by Hanging (n=376)

Age□	No.□	Percentage
0-10□	30□	8%
11-20□	110□	29.3%
21-30□	135□	36%
31-40□	65□	17.3%
41-50□	20□	5.32%
51-60□	14□	3.72%
>60□	2□	0.53%

Table II Sex Distribution of suicide by Hanging (n=376)

Sex□	No.□	Percentage
Male□	208□	55.32%
Female□	168□	44.68%

Table III Distribution of Associated features for hanging (n=376)

Associated Features□	No.□	Percentage
Family Dispute□	110□	29.3%
Violence against female□	105□	28%
Economic Crisis□	45□	12%
Chronic Illness□	10□	2.6%
Mentally Imbalance□	25□	6.6%
Drug addiction□	81□	21.5%

Table IV Distribution of Ligature material suicide by Hanging (n=376)

Ligature Material□	No.□	Percentage
Soft Material (Orna, Scarf, Shari)□	245□	64.6%
Nylon Rope□	32□	8.51%
Electric ware□	13□	3.46%
Jute Rope□	86□	22.9%

Table V Distribution of External Injuries of suicide by Hanging (n=376)

External Findings□	No.□	Percentage
Dried mark of dribbling of saliva from angle of the mouth□	376□	100%
Ligature Mark-□ Oblique,non continuous□	376□	100%
□ High up of the thyroid cartilage□	367□	98%
□ At the level of the thyroid cartilage□	9□	2%
□ Below the thyroid cartilage□	0□	0%
Post mortem staining in the legs, feet, hands□	203□	54%
Presence of other injuries□	5□	14.9%
Discharge of urine□	103□	27.4%

*Multiple Response.

Table VI Distribution of External findings of suicide by Hanging (n=376)

Internal Findings□	No.□	Percentage
Parchmentization□	376□	100%
Fracture of Thyroid Cartilage□	00□	0%
Fracture of Hyoid bone□	20□	5.32%

*Multiple Response.

DISCUSSION

Suicide is increasing day by day around the whole world. Among different method suicide by hanging is one of the most chosen methods.⁸

In our study we have found that hanging is done more by males 208(55.32%). Similar findings is seen in study of Ali E et al.⁹ Suicidal rates in around the world is also higher in males.¹⁰ In United kingdom suicide is three or four times more in males than in females irrespective of age.¹¹

We have seen that the age between 21-30, 135(36%) commits suicide by hanging. This age is more vulnerable because of emotional triggers and peer pressure. Moreover, this age groups belongs to the majority of students where other factors such as failure in the exam, arguments with friends or family may be represented as a cause. Same incidence has found by Ahmad M, Hossain MZ.¹²

However, different factor play role in committing suicide. We have discussed about some factors in our study among them most common factors being family disputes. This factor may have caused by different other factors like economical crisis, personal relationship crisis, drug addiction and others. This finding is consistent with the study of Eddlesto M et al.¹³

In case of committing suicide by hanging everyone needs a ligature material to be hanged. And in different parts of the world people use different materials, most common being any soft material that may be clothes like shari, dupatta, scarfetc. We have found 245 cases (64.6%) used this soft material in our study. They hanged themselves with ceiling fans using tools or some other materials for standing. So most of the cases are being the complete suspension. This finding is common in the study of Benne et al.¹⁴

In post mortem examination between different types of findings we have seen that all the cases showed dried mark of dribbling of saliva 376 (100%). other external findings are Post mortem staining is seen in hands and feet in 203 (54%) discharge of urine in 103(27.4%), other injuries found in 56 (14.9%). And in internal findings parchmentization is found in 376(100%). Similar findings have been shown by Patel A P et al.¹⁵

CONCLUSION

The high incidence of hanging in young male adults impose a serious effect in our economy. It is also a least attended public health problem. Various factors play role in this social problem.

RECOMMENDATION

Multifactorial approach is needed to solve this problem. Raising public awareness program, increasing job facilities, mental health awareness programs could be included in it.

DISCLOSURE

All the authors declared no competing interest.

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