

Autopsy of Suicidal Death Analysis in 250 Beaded General Hospitals Sirajganj

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ABSTRACT: *Background:* Suicide affects all sociodemographic levels, age groups, and populations worldwide. The factors that can increase the risk of suicidal tendencies are widely studied. Suicide defined as a self-inflicted cause of death. Suicidal death indicates the socio-economical and health status of the community. *Methods:* This cross-sectional study was conducted at North Bengal medical college, sirajganj and data was collected from 250 Beaded General Hospital in Sirajganj. During the period of January 2022 to December 2023 total 1250 autopsies were conducted. Among these 258 were deaths due to suicide in nature. Out of these 152 cases there were deaths due to hanging. Data was collected from the postmortem reports which were preserved in the department of Forensic Medicine with the verbal consent of the doctors who performed autopsy reports. *Results:* Total 258 cases autopsy of suicidal death were done at 250 Beaded General Hospitals Sirajganj. Among them 58.9% (152) cases due to hanging, 31% (80) cases due to poisoning, others 10.1% (26) cases were due to burn, fall from height, firearm, drowning, road traffic accident etc. It was noticed that all suicidal deaths occurred from 10 years to all age group respectively, but top amongst age group of suicidal deaths occurred in between 21 to 30 years of people. Suicidal deaths are more common in female than male. Suicidal deaths due to hanging is highest next common causes of death due to organophosphorus compound poisoning. Suicidal deaths by hanging is more in female than male but in poisoning cases male are more victimized than female. *Conclusion:* In this study, it's observed that young age group is more vulnerable to commit suicide by hanging & among them males predominately sufferer in our country. To prevent suicide, status of mental health and social wellbeing should not be ignored and socioeconomical development is needed. To improve the mental health status family bonding and counselling may play an important role.

Keywords: Suicide, Death, Autopsy, Hanging, Poisoning, Forensic Medicine, Organophosphorus.



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How to cite this article:

Talukdar S, Jahan Z, Akter S, Chowdhury P, Talukder SK, Mim SNM; Autopsy of Suicidal Death Analysis in 250 Beaded General Hospitals Sirajganj. *Int. J. Forensic Expert Alliance*. 2024; 1 (2): 43-47

Article history:

Received: September 20, 2024

Revised: October 23, 2024

Accepted: November 18, 2024

Published: December 27, 2024

Peer Review Process:

The Journal abides by a double-blind peer review process such that the journal does not disclose the identity of the reviewer(s) to the author(s) and does not disclose the identity of the author(s) to the reviewer(s).



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INTRODUCTION

Suicide, defined as “a death caused by injuring oneself with the intent to die,” is considered one of the leading causes of death in people aged 15–29 years worldwide.^{1,2} According to the World Health Organization (WHO), around 703,000 people take their own life every year and, for every act of suicide, there are at least 10–20 acts of self-harm.² About 77% of these suicide deaths occur in low- and middle-income countries (LMIC).² Hanging is the major

method of suicide in our country, but other suicidal deaths are due to poisoning (especially organophosphorus compound), burn, drowning, firearm, fall from height, road traffic accident etc, which may be suicidal, homicidal, accidental in nature. In Forensic Medicine all deaths are included in certain manners, namely, natural, suicidal, homicidal, accidental, sudden etc. Poisoning is commonly accidental, but a large number are suicidal in nature.

Suicide has a strong link to mental disorders such as depression and substance addiction but can also be seen as an extreme response to sudden life-changing calamities like financial problems, chronic diseases, arguments, and changes in relationships. It remains one of the leading preventable causes of death worldwide.³ This retrospective approach aims to construct a comprehensive picture of the clinical and psychosocial circumstances that contributed to the suicide. In doing so, psychological autopsies allow for examination of a wider range of risk factors, and in more detail, than possible in register-based studies which rely on data that is routinely collected for administrative purposes.⁴ To our knowledge, five previous reviews have quantitatively summarised findings from psychological autopsy studies.⁵⁻⁹ It is now the most common method of self-destruction in advanced communities due to easy availability of toxic drugs. The most common methods used for suicide included hanging then poisoning. The process of recording suspected suicides is highly variable, influenced by factors such as sociocultural values. Forensic autopsies may not occur due to cultural norms and family pressure on the police to avoid labelling it as suicide. Delays in autopsy, along with these cultural factors, contribute to inaccurate reporting of suicide cases.

MATERIALS AND METHODS

This cross-sectional study was conducted at North Bengal Medical College, Sirajganj and data was collected from 250 Beaded General Hospital in Sirajganj. Suicide is one of the major causes of mortality 3rd copy of the postmortem reports which especially in young female in our country. Suicide

preserved in the department of Forensic Medicine. During this period total 1250 autopsies were conducted. Among these 258 were deaths due to suicide in nature. Out of these 152 cases were deaths due to hanging. The verbal consent of the doctors who performed autopsy report, I had been taken Age; sex distribution of victims and method of suicidal death are showing in tables and figures. Their ligature materials, types of knots and suspension points were evaluated. In poisoning cases during postmortem examination, some viscera were preserved and sent to the chemical examiners office, Rajshahi for toxicological analyses. Detailed and complete postmortem examinations of the bodies were also done.

RESULTS

Total 258 cases autopsy of suicidal death were done at 250 Beaded General Hospitals Sirajganj. Among them 58.9% (152) cases due to hanging, 31% (80) cases due to poisoning, others 10.1% (26) cases were due to burn, fall from height, firearm, drowning, road traffic accident etc. From above results table-1, table-2 and table-3, showing out of 258 suicidal deaths majority of the victims were within 21 to 30 years age group. Most common method of suicidal death is hanging 152 (58.9%), followed by poisoning 80 (31%), and other cases 26 (10.1%) suicidal deaths like burn, drowning, fall from height, firearm, road traffic accident etc. Suicidal death by hanging which is more in female than male but in poisoning and other cases males are more than female. Table-3 showing 51.2% cases used rope as a ligature material, 22.8% cases used clothing, 5.8% cases used sheet, 5.1% cases used cable, and others (15.1%) included one each of the followings- phone wire, steel rope, bicycle chain.

Table 1: Age distribution of the victims both male and female (n=258)

Age	No	Percentage (%)
0-10 years	3	1.1%
11-20 years	87	33.7%
21-30 years	133	51.5%
31-40 years	29	11.2%
Above 40 years	6	2.3%

Table 2: Number of suicidal Death by different methods (n=258)

Method of suicide	Male	Female	Number of Autopsy	Percentage (%)
Hanging	30	122	152	58.9%
Poisoning-Organophosphorus and Others Like sedatives, alcohol, Opium etc.	46	34	80	31%
Other cases like burn, fall from height,	17	9	26	10.1%

firearm, Drowning etc.

Table 3: Different ligature materials used for hanging

Ligature Materials	Percentage (%)
Rope	51.2%
Clothing	22.8%
Sheet	5.8%
Cable	5.1%
Others	15.1%

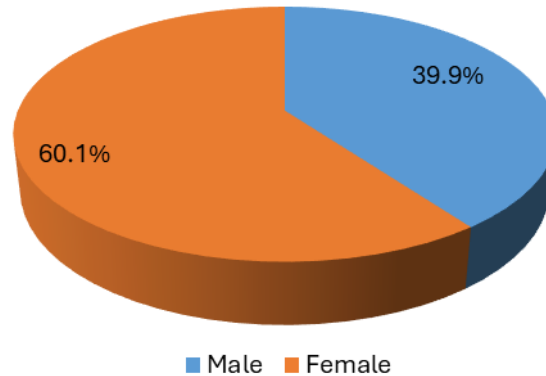


Figure 1: Distribution of Suicidal Deaths by Sex

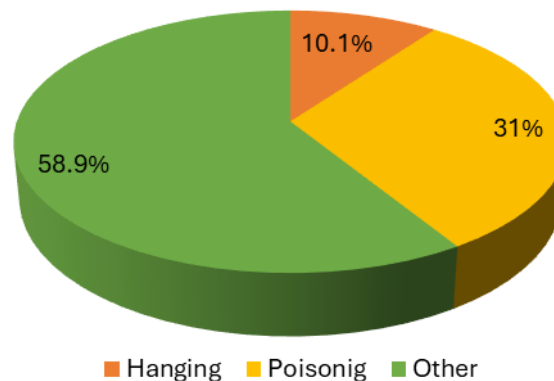


Figure 2: Number of Suicidal Deaths According to Mode of Suicide

DISCUSSION

The importance of the family's knowledge about the suicide and its implication on the outcome of the attempt is astounding. Though the psychological autopsy studies are time-consuming, they have their effect in terms of preventive strategies which can be deployed. Many studies have supported the fact that major depressive disorder is one of the most common conditions associated with a suicide attempt.^{10, 11} We found that 12 of the deceased (24%) had some form of psychiatric disorder. In our study, suicidal death occurred in all age group, but majority cases were within 21-30 years age group. Hanging is

one preferred means of committing suicide in this subcontinent'. However, deaths by hanging may be accidental or even homicidal. There may be a suicidal note left behind. There should be a motive for committing suicide. The findings of this report suggest that suicide is an important cause of death in our country. Among 258 cases 63.9% (165) were female and 36.1% (93) were male. It was found that suicide is one of the major causes of mortality in our country. Among 258 victims, 152 cases (58.9%) died due to hanging, 80 cases (31%) died due to Organophosphorus compound (OPC) and other poisoning like sedatives, alcohol, opium. In our study

in case of hanging, death due to asphyxia by using different ligature material like rope, sheet, cable and others included one each of the followings- phone wire, steel rope, bicycle chain and iron chain. In our study mode of suicide by hanging was more in female. 186 (72.1%) cases were female, and 159 (27.9%) cases were male (among 152 hanging cases). Mode of suicide among male was by ingestion of OPC, endrin and other poisons like sedatives, opium etc was more in male 43 (53.7%) cases than female 37 (46.3%) cases. Rural population of this country is mostly dependent on agricultural cultivation with the advanced of times. Suicide among unmarried women of forced or consensual and subsequent reproductive age may be linked to extramarital unwanted pregnancies. Reid *et al.* in a study on suicidal mortality occurs due to emotion, sentiment, poverty, dowry agreement, 2nd marriage of husband, rape followed by pregnancy, adultery, failure in love, failure in examination etc.¹² The number of young women and girls being sexually harassed in Bangladesh are rapidly increasing.

So, they have committed suicide in order to escape sexual harassment or Eve teasing, which was reported by daily newspaper in our country. In recent years in Bangladesh researchers sexual and emotional abuse, association between have documented the prevalence of physical, violence and physical and mental health'. Suicide occurred among young men and women in Bangladesh. Actual suicide may be an indicator of mental instability. Suicide is one of the three leading causes of death among 15-44 years old people globally". Incidence of suicidal death whether hanging or poisoning are not unfamiliar in our society. Incidence, aetiology and nature of suicide vary from one community to another and depends mainly upon age, sex customs, economic status, education status, marital status, environmental and social circumstances. Suicide is an important cause of death in Bangladesh, represents as public health concern especially for young females. From our study findings, it can be apprehended that methods of suicidal deaths, hanging is more common in Bangladeshi females. Autopsies provide an important corrective to the death certificate. A declining rate of medical autopsies may cause a change in the composition of causes of death. Measures to increase the number of autopsies and other efforts to improve the registration of causes of death should be considered. Autopsy or postmortem examination is

gold standard in this respect from ages to find the cause of death and to study diseases.

CONCLUSION

In this study, it's observed that young age group is more vulnerable to commit suicide by hanging & among them males predominately sufferer in our country. To prevent suicide, status of mental health and social wellbeing should not be ignored and socioeconomical development is needed. To improve the mental health status family bonding and counseling may take play an important role. It is very difficult to assess the exact reason or pinpoint the cause of suicide. More studies in this field are required with a larger sample size for the evaluation of suicide.

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