Original article

Patterns of Suicide Cases in Faridpur District: An Analysis of Post-mortem Data from 2024

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Abstract

Background: Suicide is a major public health concern globally, especially in low and middle- income countries like Bangladesh. This study aimed to explore the patterns and associated factors of suicide cases in Faridpur district using post-mortem data from 1st January 2024 to 31st December 2024. **Methods:** This cross-sectional study retrospectively analyzed post-mortem reports of 140 suicidal deaths conducted in Faridpur Medical College from January 1 to December 31, 2024. Descriptive statistics were used to analyze the data. **Results:** Of the 140 suicidal deaths, hanging was the predominant method 68.6% (96), followed by poisoning 30.7% (43), Females accounted for 60.7% (85) of cases. The majorities were Muslim (89.3%, 125), 63.6% (89) were married and 43.6% (61) were housewives. Within the victim population, more than half (56.5%) were aged 18-35 years, peaking in the 18-25 age group (37.9%, 53), and depression history was noted in 87.1% (122) of cases. **Conclusion:** Suicide by hanging is a major issue among young adults, particularly females in Faridpur District. Mental health issues like depression is key risk factors. Targeted research and multilevel prevention strategies are urgently needed.

ntroduction

Suicide is a global public health crisis, claiming over 700,000 lives annually.[1] Low- and middle-income countries (LMICs) bear a disproportionate burden, accounting for 77% of global suicides.[2] In Bangladesh, the age-standardized suicide rate in 2019 was 6.02 per 100,000 for males and 1.66 for females.[3] Hanging is a leading suicide method worldwide[4] and in Bangladesh.[5] Multiple socio-economic, cultural, and health system factors contribute to the high suicide rates in LMICs.[6] Poverty, gender-based violence and lack of access to mental health services are some of the factors.[7, 8] Mental health is a major issue in Bangladesh; the number of psychiatrists available is 0.44 per 100,000 populations.[9] This is because stigma and misconceptions about suicide also add to the issue.[10]

Most of the previous studies conducted in Bangladesh are at the national level, and little is known about the district-level suicide rates and their risk factors. Learning about the local situations is essential to prevent the disease since it is a way of understanding the needs and problems of the community in question.

This study therefore seeks to address this issue through establishing the pattern and risk factors of suicide in Faridpur district of Bangladesh through post-mortem analysis of 2024. The results will help to develop the evidence-based intervention to prevent suicides and enhance mental health in this area.

Methods

Study design and setting

This cross-sectional descriptive study was carried out in the Department of Forensic Medicine and Toxicology, Faridpur Medical College, from 1st January 2024- 31st

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December 2024 and retrospectively analyzed the suicidal death case based on post-mortem reports.

Data collection

Data was extracted from post-mortem reports and inquest reports using a structured checklist. Variables included age, gender, religion, and marital status, and occupation, mode of suicide and history of depression.

Ethical approval

The study protocol was approved by the Ethical Review Committee of Diabetic Association Medical College, Faridpur. As this study involved the analysis of secondary data from post-mortem reports, informed consent was not required. All data were anonymized and kept confidential, and the study was conducted in accordance with the Declaration of Helsinki.

Data analysis

Data was entered into Microsoft Excel and analyzed using descriptive statistics. Categorical variables were expressed as frequencies and percentages.

Results

A total of 140 suicidal deaths were recorded in Faridpur district in 2024. Hanging was the predominant method, accounting for 68.6% (96) of cases, followed by poisoning at 30.7% (43).

The socio-demographic profile of the victims is shown in Table 1.
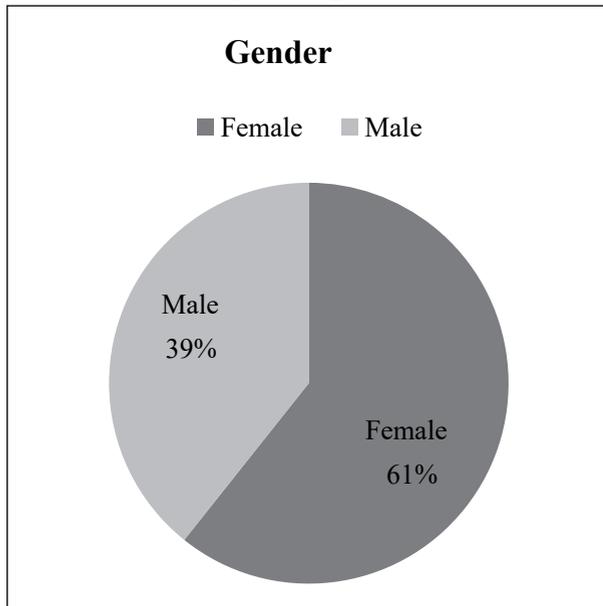
Visualizations of Key Findings

Figure 2: Age distribution of suicide cases
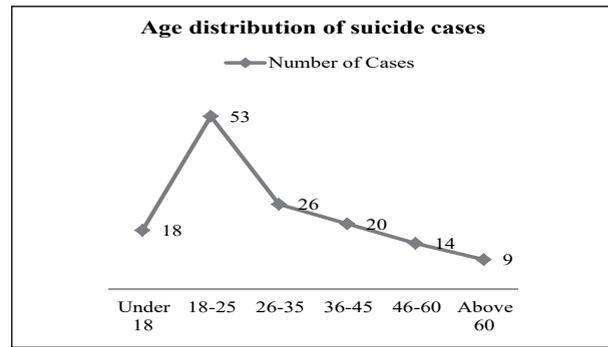

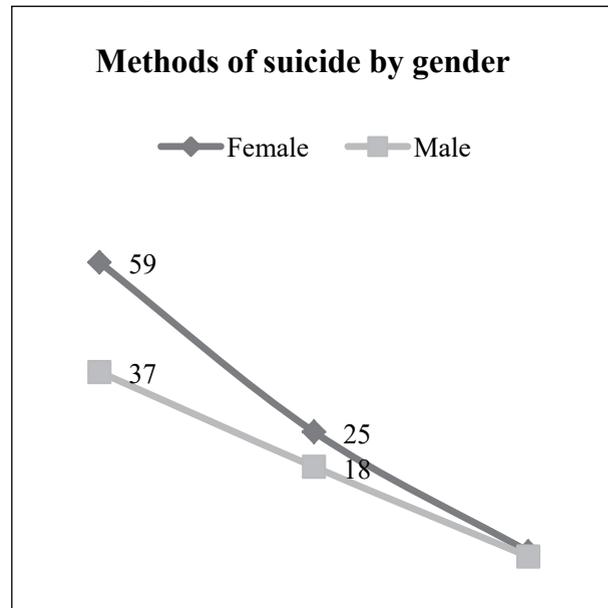Figure 3: Methods of suicide by gender

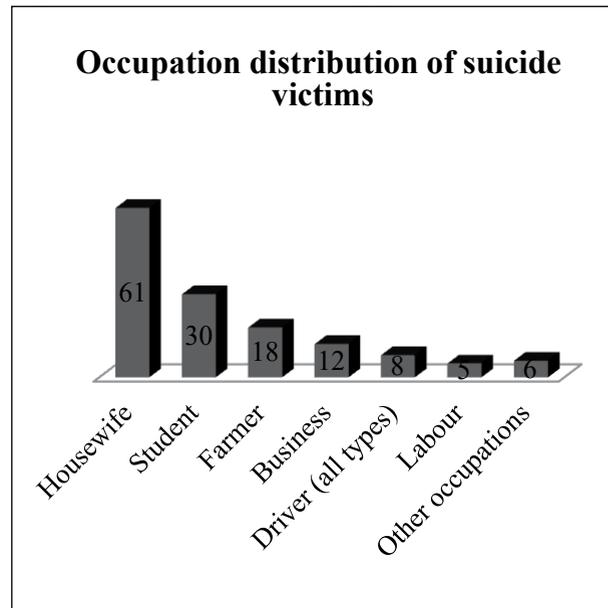**Figure 1: Gender distribution of suicide cases**

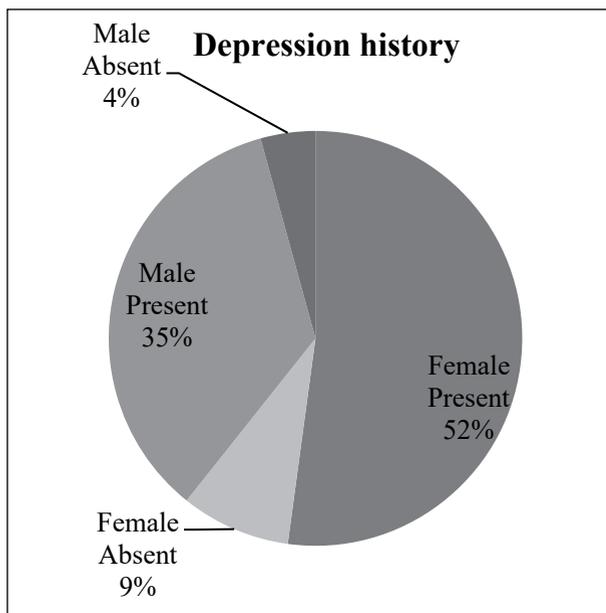**Figure 4: Occupation distribution of suicide victims**

Figure 5: Comparison of depression history by gender

Table 1: Socio-demographic characteristics of suicide victims (N=140)

Characteristic	Frequency (n)	Percentage (%)
Gender		
Female	85	60.7
Male	55	39.3
Religion		
Islam	125	89.3
Hindu	15	10.7
Marital Status		
Married	89	63.6
Unmarried	48	34.3
Not specified	3	2.1
Occupation		
Housewife	61	43.6
Student	30	21.4
Farmer	18	12.9
Business	12	8.6
Driver (all types)	8	5.7
Labour	5	3.6
Other occupations	6	4.3
Age Group (years)		
Under 18	18	12.9
18-25	53	37.9
26-35	26	18.6
36-45	20	14.3
46-60	14	10
Above 60	9	6.4
Mode of Suicide		
Hanging	96	68.6
Poisoning	43	30.7
History of Depression		
Present	122	87.1
Absent	18	12.9

Table 2: Gender-specific distribution of key variables

Variable	Female (n=85)	Male (n=55)
Marital Status		
Married	58 (68.2%)	31 (56.4%)
Unmarried	26 (30.6%)	22 (40.0%)
Not specified	1 (1.2%)	2 (3.6%)
Occupation		
Housewife	61 (71.8%)	0 (0%)
Student	21 (24.7%)	9 (16.4%)
Farmer	0 (0%)	18 (32.7%)
Business	0 (0%)	12 (21.8%)
Labour/Driver	0 (0%)	13 (23.6%)
Others	3 (3.5%)	3 (5.5%)
Mode of Suicide		
Hanging	57 (69.4%)	37 (67.3%)
Poisoning	25 (29.4%)	18 (32.7%)
History of Depression		
Present	73 (85.9%)	49 (89.1%)
Absent	12 (14.1%)	6 (10.9%)

Discussion

This study provides important insights into the patterns of suicide in Faridpur district, revealing several key findings with significant implications for public health interventions.

Demographic patterns

The predominance of female victims 60.7% (85), in our study aligns with previous research in Bangladesh that has consistently shown higher suicide rates among females compared to the global trend where males typically have higher rates.[11,12] This gender disparity in Bangladesh may reflect complex social determinants including gender-based violence, early marriage, family conflicts, and limited economic opportunities for women.[13] The high proportion of housewives (61, 43.6%) of all cases, (61, 71.8%) of female victims further highlights the potential role of domestic stressors, isolation, and financial dependence in increasing suicide vulnerability among women.[14]

This shows that young people are the most affected, with the 18-25-year age group contributing to (53, 37.9%) of the total cases. This is in accordance with the global trends where young people in many low- and middle-income countries (LMICs) have been found to experience the highest suicide rates.[15] The transition period from adolescence to adulthood involves significant life changes, academic pressures, relationship issues, and identity formation, which may increase psychological distress.[16] In Bangladesh, additional factors like limited employment opportunities, family pressure, and early marriage may further compound stress in this age group.[17]

Methods of suicide

Hanging emerged as the predominant method (68.6%), followed by poisoning (30.7%). The high prevalence of hanging aligns with previous studies from Bangladesh.[18,19] and reflects the accessibility and lethality of this method. The preference for hanging may be influenced by its perceived efficiency, accessibility of means, and cultural perceptions.[20] Gender-specific analysis showed similar patterns of suicide methods between males and females, challenging the traditional view that females predominantly choose less violent methods.[21]

Mental health factors

One of the most striking findings is the high prevalence of depression history (87.1%) among suicide victims. This emphasizes the critical role of mental health disorders as risk factors for suicide, consistent with global literature.[22,23] The slightly higher prevalence of depression among male victims (89.1% vs. 85.9% in females) is noteworthy and may reflect undiagnosed or undertreated depression in men, potentially due to stigma around mental health and help-seeking behaviors.[24]

Socio-cultural context

The religious distribution (89.3% Muslim, 10.7% Hindu) approximately reflects the general population demographics of Faridpur district.[25,26] Muslims are the majority population with 91.50%, while Hindus are 8.44%. The higher proportion of married individuals (89, 63.6%) among suicide victims contradicts the traditional view that marriage is protective against suicide.[27] This finding suggests that in the Bangladeshi context, marital relationships may sometimes introduce stressors rather than providing protective social support, particularly when complicated by factors such as domestic violence, dowry-related issues, or family conflicts.[28]

Occupational representation also showed gender differentiation, with more females in the housewives and student's category and more male engagement in occupations. This means that housewives' susceptibility to suicide could be occasioned by factors such as social exclusion, lack of financial independence, high risks of domestic abuse, and restricted decision-making power.[29,30] In the case of students, academic stress, future prospects, and relationship problems may lead to psychological problems.[31]

Limitations

The use of post-mortem data limits our understanding of the complex psychosocial factors leading to suicide. Information on depression history relies on family reports and may be subject to recall bias or underreporting due to stigma. The cross-sectional design means that it is impossible to determine that the observed factors cause suicide. Moreover, cultural beliefs and attitudes may contribute to the underestimation or misclassification of some suicides in certain populations.

Conclusion

Young adult females in Faridpur face alarming suicide rates (60.7%), predominantly by hanging (96, 68.6%), with depression history (87.1%). Urgent interventions needed: enhanced mental health services, gender-targeted programs, youth prevention, and means restriction. Immediate evidence-based action is imperative to save lives and build resilient communities by 2030.

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