Section: Psychiatry

Original Research Article

GENDER DIFFERENCES IN SUICIDE BEHAVIOUR AMONG SUICIDAL ATTEMPTERS IN A TERTIARY MEDICAL COLLEGE HOSPITAL

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ABSTRACT

Background: Suicide is a major public health problem worldwide, with India contributing significantly to the global burden of suicide. Gender differences influence the pattern, intent, and methods of suicidal behaviour. Identification of gender-specific risk factors is essential for effective prevention and management of suicide attempts. The aim is to assess the relationship between gender and suicidal behaviour and to evaluate the severity of suicidal intent among suicide attempters. **Materials and Methods:** This hospital-based cross-sectional study was conducted in the Department of Psychiatry, Thanjavur Medical College and Hospital, Tamil Nadu, from July 2019 to September 2019. A total of 75 suicide attempters aged between 15 and 45 years who were referred for psychiatric evaluation were included after obtaining informed consent. Socio-demographic and clinical details were collected using a semi-structured proforma. Stressful life events were assessed using the Presumptive Stressful Life Events Scale (PSLES), and suicidal intent was evaluated using Beck's Suicide Intent Scale (BSIS). Statistical analysis was performed using Chi-square test, Fisher's exact test, Student's t-test, and Mann–Whitney U test where appropriate; $p < 0.05$ was considered statistically significant. **Result:** Males constituted a higher proportion of suicide attempters (62.7%) than females (37.3%). Poisoning was the most common method of attempt. Male attempters had significantly higher suicidal intent scores, whereas female attempters demonstrated more impulsive attempts associated with psychosocial stressors. **Conclusion:** Significant gender differences were observed in suicidal behaviour, intent, and associated psychosocial factors. Early identification of gender-specific risk factors may facilitate targeted suicide prevention strategies and improve psychiatric outcomes.

INTRODUCTION

Suicide is a significant public health issue and one of the leading causes of death worldwide. According to the World Health Organization, nearly 700,000 individuals die due to suicide every year, and many more attempt suicide.[1] India contributes substantially to the global burden of suicide due to multiple socio-cultural, economic, and psychological factors influencing suicidal behaviour.

Suicidal behaviour encompasses suicidal ideation, suicide attempts, and completed suicide. Psychiatric illnesses such as depression, substance abuse, anxiety disorders, and personality disorders are strongly associated with suicidal behaviour.[2]

Gender differences significantly influence suicidal behaviour. Females attempt suicide more frequently, whereas males tend to use more lethal methods and have higher suicide completion rates.[3] Interpersonal conflicts, marital disharmony, financial stress, academic difficulties, and stressful life events are common risk factors associated with suicidal attempts.[4]

In India, poisoning remains one of the most common methods of suicide attempt because of easy availability of toxic substances in rural settings.[6] Stressful life events during the preceding year have also been identified as important contributors to suicidal behaviour.[5]

Only limited studies from South India have examined gender differences in suicidal behaviour among suicide attempters attending tertiary care hospitals. Hence, the present study was undertaken to evaluate gender differences in suicidal behaviour among suicide attempters attending a tertiary medical college hospital.[6]

Aim and Objectives

Aim: To study gender differences in suicidal behaviour among suicide attempters attending a tertiary medical college hospital.

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Objectives

1. To assess the relationship between gender and suicidal behaviour.
2. To assess the severity of suicidal intent among suicide attempters.
3. To identify socio-demographic and clinical factors associated with suicidal behaviour.
4. To assess stressful life events associated with suicide attempts.

MATERIALS AND METHODS

This hospital-based cross-sectional study was conducted in the Department of Psychiatry, Thanjavur Medical College and Hospital, Tamil Nadu, between July 2019 and September 2019.

A total of 75 suicide attempters referred from various departments for psychiatric consultation were included in the study. Patients aged between 15 and 45 years who provided written informed consent were recruited.

Inclusion Criteria

- Patients aged between 15 and 45 years.
- Suicide attempters referred for psychiatric consultation.
- Patients willing to provide written informed consent.

Exclusion Criteria

- Patients unwilling to participate.
- Patients below 15 years and above 45 years.
- Patients with mental retardation or cognitive dysfunction.
- intellectual disability patients.

Tools Used

- Semi-structured socio-demographic proforma.
- Presumptive Stressful Life Events Scale (PSLES).
- Beck's Suicide Intent Scale (BSIS).[5]

Socio-demographic and clinical details including age, gender, education, occupation, marital status, socio-economic status, mode of suicide attempt, past history of suicidal attempts, family history of suicide, and psychiatric illness were recorded.

Stressful life events occurring during the previous year were assessed using PSLES, and severity of suicidal intent was assessed using BSIS. Statistical analysis was performed using appropriate statistical methods, and $p < 0.05$ was considered statistically significant.[6]

Statistical Analysis: Data obtained from the study were entered in Microsoft Excel and analysed using SPSS software version 20.0. Continuous variables were expressed as mean ± standard deviation and categorical variables were expressed as frequency and percentage. Chi-square test, Fisher's exact test, Unpaired Student's t-test, and Mann–Whitney U test were used wherever appropriate. A p-value < 0.05 was considered statistically significant.

RESULTS

Table 1: Comparison of Demographic Characteristics Between the Genders in the Study

Parameter	Male (n=47)	Female (n=28)	Comparison (P value)
Age (years)	28.7 ± 7.1	24.2 ± 8.1	t = 2.556 (p = 0.013*)
15–25 years	16 (34%)	19 (67.9%)	χ^2 = 8.601 (p = 0.004*)
26–35 years	25 (53.2%)	5 (17.9%)	χ^2 = 9.128 (p = 0.003*)
36–45 years	6 (12.8%)	4 (14.3%)	χ^2 = 0.035 (p = 0.851)
Education			
Illiterate	3 (6.4%)	3 (10.7%)	χ^2 = 0.4473 (p = 0.503)
Literate	44 (93.6%)	25 (89.3%)	
Marital Status			
Married	22 (46.8%)	15 (53.6%)	χ^2 =0.321 (p = 0.637)
Single	25 (53.2%)	13 (46.4%)	
Occupation			
Unemployed	8 (17%)	24 (85.7)	χ^2 = 33.5 (p < 0.001*)
Employed	39 (83%)	4 (14.3)	
Religion			
Hindu	44 (93%)	25 (89.3%)	χ^2 = 1.731 (p = 0.421)
Muslim	1 (2.1%)	0 (0%)	
Christian	2 (4.3%)	3 (10.7%)	
Family Type			
Nuclear	33 (70.2%)	19 (67.9%)	χ^2 = 0.046 (p = 0.999)
Joint family	14 (29.8%)	9 (32.1%)	
Socio-economic Status			
Lower	26 (55.3%)	19 (67.9%)	χ^2 = 0.4473 (p = 0.503)
Middle	21 (44.7%)	9 (32.1%)	
Residence			
Urban	40 (85.1%)	25 (89.3%)	χ^2 = 0.265 (p = 0.735)
Rural	7 (14.9%)	(10.7%)	

Data are expressed as frequency (%) except age, which is expressed as mean ± standard deviation. Unpaired t-test was used to compare age. Fisher's exact test/Chi-square test was used to compare categorical variables. A p-value < 0.05 was considered statistically significant.

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Table 2: Comparison of Clinical Characteristics Between the Genders in the Study

Parameter	Male (n=47)	Female (n=28)	Comparison (P value)
Past h/o mental illness	2 (4.3%)	1 (2.1%)	$\chi^2 = 1.224$ (p = 0.526)
Past h/o suicide attempt	8 (17%)	0 (0%)	$\chi^2 = 0.558$ (p = 0.522)
Family h/o suicide attempt	7 (14.9%)	3 (10.7%)	$\chi^2 = 0.005$ (p = 0.999)
Family h/o mental illness	3 (6.4%)	4 (14.3%)	$\chi^2 = 0.275$ (p = 0.999)
Other medical illnesses	3 (6.4%)	1 (3.6%)	$\chi^2 = 0.447$ (p = 0.665)
Pattern of substance abuse			
Nil	19 (40.4%)	28 (100%)	$\chi^2 = 63.4$ (p < 0.0001*)
Abuse	3 (6.4%)	0 (0%)	
Harmful	22 (46.8%)	0 (0%)	
Dependence	3 (6.4%)	0 (0%)	
Suicidal intention			
Low	12 (25.5%)	18 (64.3%)	$\chi^2 = 11.02$ (p = 0.004*)
Medium	19 (40.4%)	5 (17.9%)	
High	16 (34%)	5 (17.9%)	
Current diagnosis			
Adjustment disorder	12 (25.5)	22 (78.6)	$\chi^2 = 19.92$ (p< 0.0001)
Depressive disorder	5 (10.6)	2 (7.1)	$\chi^2 = 0.253$ (p= 0.614)
Borderline personality disorder	6 (12.8)	3 (10.7)	$\chi^2 = 0.069$ (p= 0.791)
Alcohol dependence	23 (48.9)	1 (3.6)	$\chi^2 = 16.59$(p< 0.0001)
Oppositional defiant disorder	1 (2.1)	0.(0)	$\chi^2 = 0.603$ (p= 0.437)
Number of stressors	2 (1-3)	1 (1-2.75)	P=0.378

Fisher's exact test/Chi-square test was used to compare categorical variables. $p < 0.05$ was considered statistically significant.

Table 3: Comparison of Mode, Type and Time of Suicide Attempt Between the Genders in the Study

Parameter	Male (n=47)	Female (n=28)	Comparison (P value)
Mode of Attempt			
Poisoning	43 (91.5%)	28 (100%)	$\chi^2 = 2.517$ (p = 0.112)
Hanging	3 (6.4%)	0 (0%)	χ^2=1.862 (p=0.172)
Self-infliction	1 (2.1%)	0 (0%)	χ^2=0.603 (p=0.437)
Type of Poisoning			
Oleander seeds	15 (34.9%)	9 (32.1%)	χ^2=3.328 (p=0.104)
Kerosene	3 (6.9%)		χ^2=4.281(p=0.038*)
OPC	2 (4.7%)	5 (17.9%)	χ^2=0.056 (p=0.811)
Rat killer	23 (53.5%)	8 (28.6%)	χ^2=4.281(p=0.038*)
Place of Attempt			
Inside house	27 (57.4%)	25 (89.3%)	χ^2=8.366(p=0.004*)
Outside house	20 (42.6%)	3 (10.7%)	
Time of Attempt			
Early morning	6 (34.9%)	3 (32.1%)	χ^2=0.069 (p=0.791)
Day time	13 (27.7%)	14 (50%)	χ^2=3.801 (p=0.081)
Night time	28/47 (59.6%)	11 (39.3%)	χ^2=2.894 (p=0.101)
Type of Attempt			
Planned	7 (14.9%)	3 (10.7%)	χ^2=0.265 (p=0.735)
Impulsive	40 (85.1%)	25 (89.3%)	
Reason for Attempt			
Love related issues	5 (10.6%)	4 (14.3%)	χ^2=0.072 (p=0.783)
Physical illness	3 (6.4%)	3 (10.7%)	χ^2=0.589 (p=0.442)
IPR with others	5 (10.6%)	3 (10.7%)	χ^2=0.253 (p=0.614)
IPR with spouse	17 (36.2%)	11 (39.3%)	χ^2-0.221 (p=0.638)
Financial issues	12 (25.6%)	5 (17.9%)	χ^2=0.447 (p=0.503)
Unemployment	5 (10.6%)	2 (7.1%)	χ^2=0.001 (p=0.991)
Attempt under alcohol influence	24 (51.1%)	0 (0%)	χ^2=21.03(p<0.0001*)

Chi-square test/Fisher's exact test was used to compare categorical variables. $p < 0.05$ was considered statistically significant.

The majority of suicide attempters belonged to the younger age group of 15–35 years.

Family conflicts, marital problems, financial difficulties, and stressful life events emerged as major precipitating factors for suicide attempts. Poisoning was the predominant method of attempt among both genders. Male participants demonstrated higher suicidal intent scores, whereas female participants exhibited relatively more impulsive suicidal behaviour.[5]

Poisoning was the most commonly employed method of suicide attempt among both males and females, consistent with findings from previous Indian studies.[6]

Male suicide attempters outnumbered females in the present study, whereas female attempters showed more impulsive suicidal behaviour associated with psychosocial stressors.[3]

DISCUSSION

The present study demonstrated significant gender-related differences in suicidal behaviour among

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individuals presenting with suicide attempts to a tertiary care hospital. Males constituted a higher proportion of the study participants and exhibited higher suicidal intent scores, whereas females demonstrated more impulsive suicidal behaviour associated with psychosocial stressors. Interpersonal conflicts, marital disharmony, and stressful life events emerged as major precipitating factors associated with suicidal attempts. Similar findings were reported by Radhakrishnan and Andrade, who identified psychosocial stressors as important contributors to suicidal behaviour in India.[4]

Poisoning was the most common method of suicide attempt observed in the present study. Previous Indian studies have also reported poisoning as the predominant method because of easy accessibility of pesticides and toxic substances in rural areas.[6]

Male suicide attempters showed comparatively higher suicidal intent scores than females. Higher suicidal intent scores among males may reflect the use of more planned and potentially lethal methods of self-harm. Females, on the other hand, demonstrated more impulsive attempts associated with emotional and interpersonal stressors.[3]

The findings of the present study highlight the importance of identifying gender-specific psychosocial and clinical risk factors for early intervention and prevention of repeated suicide attempts.[7]

CONCLUSION

This study demonstrated significant gender differences in suicidal behaviour among suicide attempters. Males constituted the majority of participants and exhibited higher suicidal intent scores, whereas females showed relatively more impulsive attempts associated with psychosocial stressors. Family conflicts, marital problems, financial difficulties, and stressful life events were important contributing factors. Early identification of gender-specific psychosocial and clinical risk factors may facilitate effective suicide prevention strategies and improve psychiatric intervention outcomes.[1]

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Limitations: The present study has certain limitations. It was conducted in a single tertiary care centre with a relatively small sample size, which may limit the generalizability of the findings. The cross-sectional design precludes causal inferences. Information regarding suicidal behaviour and stressful life events was obtained through self-report, which may be subject to recall bias. Future multicentre studies with larger sample sizes are recommended.

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