ORIGINAL ARTICLE

Cross-sectional study on the psychosocial factors, the severity of depression, and coping strategies among patients attempting suicide

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ABSTRACT

Background: With around 10–20 million individuals attempting suicide each year, suicide attempts have been considered a significant public health issue. A significant fraction of it is caused by depression. Life events and other psychosocial stressors were frequently linked to both depression and suicidal behavior. Coping strategies are cognitive, emotional, and behavioral approaches used to lessen and cope with the negative impacts of stressful situations.
Aim: This study aimed to find the psychosocial factors, the severity of depression, and coping strategies among patients attempting suicide.
Materials and Methods: Study design: This study was a hospital-based descriptive cross-sectional study. A total of 120 consecutive cases were selected using Patient Health Questionnaire 2 (PHQ-2) scales and assessed for severity of depression and coping strategies using the Hamilton Depression Rating Scale (HAM-D) and Coping Orientation to Problem Experienced Inventory (Brief-COPE) scales, respectively. Pearson's Chi-square or Fisher's exact test and independent-samples *t*-test have been performed to see the association between categorical and continuous variables. The Pearson correlation coefficient has been used to see the relationship between two continuous variables.
Results: Most of the cases (33.3%) were found to be severely depressed. Among all the cases, the majority, that is, 90.8%, were using avoidant-type coping strategies and only 9.2% were using approach-type coping strategies. A significant positive correlation between the avoidant-type coping strategy and depression and a negative correlation between the approach-type coping strategy and depression was found.
Conclusion: Patients with depression attempting suicide were found to utilize avoidant-type coping strategies to cope with life stresses. Hence, it is crucial to place greater emphasis on assessing coping strategies and focus on teaching approach-oriented coping strategies as a means to prevent suicidal attempts.

Key words: Attempted suicide, coping strategy, depression

INTRODUCTION

Millions of individuals around the world are impacted by suicide and attempted suicide, which are grave tragedies on family, societal, and individual levels. The term "suicide"

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refers to individuals around the world are impacted by suicide and attempted suicide, which are to die as a result of the behaviour." In contrast, attempted suicide refers to re impacted by suicide and attempted suicide, which are to die intent to die, as a result of the act."[1]

Being the second most common cause of death for those between the ages of 10 and 34 and the tenth overall worldwide, suicide has become a major public health concern on a global scale. According to estimates, around 10–20 million individuals attempt suicide, and about one million people die by completing suicide, with one suicide death occurring every 40 seconds each year.[2]

Nine of ten people who die by suicide in the majority of studies appear to have a psychiatric condition at the time of their death and depression is the most prevalent of these diseases, occurring in half to two-thirds of cases, according to psychological autopsy studies. Suicide is the sixth leading cause of mortality among people getting psychiatric treatment for depression.[3] The emergence of suicidal thoughts and even suicide attempts is increased by the presence of depression, which has an adverse effect on a person's everyday functioning and social interactions. The suicidal patient is likely to have been clinically depressed at the time of his attempt regardless of the primary condition.[4,5]

Suicide attempts usually occur after stressful experiences, especially in those who are already suffering from depression.[6] To deal with demands in life that are particularly difficult and likely surpass their resources and/or capacities and to cope with the negative impact of it, people tend to adopt certain cognitive and behavioral methods, which are known as coping strategies.[7] According to some theories, people who struggle with mental health issues, such as depression, tend to use more maladaptive avoidance behaviors as coping mechanisms compared with adaptive or approach-type coping behavior.[6]

Therefore, we should include coping strategies in preventive strategies and interventions should include teaching approach-type coping strategies as a method to deal with stressful life situations, face problems, and fight against depression and finally suicidal ideation.[8]

There is scanty published research to investigate the correlation of coping strategy with depression and suicidal attempts in the northeastern part of India, and in and around Tezpur, no such studies have been conducted, which is why this study is a sincere effort to assess the psychosocial correlates of suicidal attempters who have depression, to assess their severity of depression and the coping strategy used by them. This study also tries to find out the association of the various psychosocial correlates with the severity of depression and coping strategies used by patients attempting suicide and to investigate whether there is any correlation between depression and the primary coping strategies of patients who have attempted suicide.

MATERIALS AND METHODS

It was a descriptive cross-sectional study conducted in the Department of Psychiatry, at Tezpur Medical College and Hospital (TMCH), Tezpur, Assam, for 1 year (August 2021 to July 2022). The study received ethical approval from the Institutional Human Ethical Committee (IEC No. 072/2021/TMCH). Consecutive sampling was performed to select the study subjects. All cases of suicide attempts from both the psychiatry outpatient and inpatient department and those who were admitted to other departments of TMCH and were referred to the psychiatry department for consultation liaison were selected. All the cases of suicide attempts who had depression and those who gave consent for the study were included. Patients who were unable to comprehend and who had other major psychiatric disorders else than depression were excluded from the study. The Primary Care Evaluation of Mental Disorders (PRIME-MD) Patient Health Questionnaire 2 (PHQ-2) was used to screen for depression. Those who screened positive (score o3) were then assessed to see whether they had met the criteria of the depressive disorder according to the International Classification of Diseases, Tenth Revision (ICD-10). The diagnosis was confirmed by one of the consultants of the psychiatry department. After that, those fulfilling the inclusion criteria were selected for the study. A total of 120 cases were selected within the study period.

The following tools were used.

PRIME-MD PHQ 2: A self-administered version of the PRIME-MD tool for common mental health disorders used by healthcare professionals is the PHQ. The PHQ-2, the first two items of the PHQ-9, inquires about the frequency of depressed mood and anhedonia over the last 2 weeks, scoring each as 0 (depressed mood and anhedonia over the). A PHQ-2 score of 3 or higher exhibited a 92% specificity and an 83% sensitivity for major depression. The best cut point for screening purposes was determined to be a PHQ-2 score of ≥3. Its goal is to screen for depression or monitor its severity rather than establish a final diagnosis. Patients who screen positive should undergo further assessment to see whether they fulfill the requirements for a depressive illness.

Hamilton Depression Rating Scale (HAM-D): It was used for the assessment of the severity of depression among patients attempting suicide. HRDS or HAM-D is the most frequently used clinician-administered depression evaluation scale. The levels of depression concerning the 17-item HAM-D were determined by the National Institute for Health and Clinical Excellence (NIHCE) of the UK by comparing them with American Psychiatric Association recommendations

as follows: not depressed: 0–7, mild (subthreshold): 8–13, moderate (mild): 14–18, severe (moderate): 19–22, and very severe (severe): >23.

Coping Orientation to Problem Experienced Inventory (Brief-COPE): It is a self-report questionnaire designed to examine a wide range of coping strategies. It is currently one of the most frequently used and well-validated coping strategies measures available. The shorter version of Brief-COPE consists of 28 items that measure 14 factors of 2 items each, which correspond to a Likert scale ranging from 0 to 3, where 0 = 'I have not been doing this at all', 1 = 'A little bit', 2 = 'A medium amount' and 3 = 'I have been doing this a lot'. The score can determine an individualds primary coping style, either avoidant or approach coping. A validated Assamese-translated version of the scale was used in this study.

Procedure

A total of 120 cases were selected by the sampling procedure for the study. Written informed consent was obtained from all the cases. The data about the sociodemographic variables and psychosocial correlates were collected using the semi-structured sociodemographic pro forma designed by the Department of Psychiatry, TMCH. The HAM-D was then administered to find out the severity of depression in the cases. The coping strategies used by the participants to cope with daily life stresses were also assessed using the Brief-COPE and were categorized accordingly. Finally, the association between the severity of depression and various sociodemographic and psychosocial variables and between coping strategies and different sociodemographic and psychosocial variables was assessed. The correlation between coping strategy and depression among patients attempting suicide was also assessed using appropriate statistics.

Statistical analysis

The results and observations were analyzed keeping the aims and objectives in mind, and data were expressed as frequency, percentage, mean, and standard deviation. IBM Statistical Package for the Social Sciences (SPSS) version 26 was used for descriptive analysis of the data. Tables and charts have been prepared using Microsoft Excel spreadsheets. Pearson's Chi-square or Fisherion 26 was used for descriptive analysis of the data. Tables and chartindependent-samples *t*-test has been used to see the mean difference between continuous variables. The Pearson correlation coefficient has been used to see the relationship between two continuous variables. A *P* value of <0.05 has been considered statistically significant.

RESULTS

A total of 191 patients attempting suicide were screened for having depression using PHQ-2, and 120 patients were selected who screened positive for depression and who fulfilled the inclusion criteria.

The results and observations made are as follows.

The mean PHQ-2 score was found to be 4.14 ollowsi, and the mean HAM-D score was found to be 20.40 itive for depression and who fulfilled the inclusion criteria.ient has been used to see the, 17.5% had mild depression, 24.2% had moderate depression, 25% had severe depression, and 33.3% had very severe depression. Of 120 cases, 90.8% were using avoidant-type coping strategies and only 9.2% were using approach-type coping strategies to deal with major stresses in life.

In Table 1, descriptive statistical analysis was used for sociodemographic and clinical characteristics. The Pearson Chi-square or Fisherarson and clinical characteristics.for sociovere; Ap- Approach; Av- Avoidaindependent-samples *t*-test has been used to see the mean difference between continuous variables. For statistical analysis, IBM SPSS version 26 has been used.

It was found that the majority (60.8%) of cases were 20–40 years old, and the mean age was 31.8 years. Most were females (52.5%), belonging to the Hindu religion (69.2), married (63.3%), the majority with a primary level of education (58.3%), unemployed (65.8%), and from the nuclear family (54.2%) with most of them belonging to the upper-lower socioeconomic background (56.7%).

In Table 2, descriptive statistical analysis was used for sociodemographic and clinical characteristics. The Pearson Chi-square or Fisheraphic and clinical characteristics. The Pearson; Ap- Approach; Av- Avoidaindependent-samples *t*-test has been used to see the mean difference between continuous variables. For statistical analysis, IBM SPSS version 26 has been used.

It was found that of those who had attempted suicide, most subjects (30.0%) attempted suicide by consuming organophosphorus compound (OPC), followed by hanging (25%), an overdose of medications (16.7%), cutthroat (1.7%), burning (1.7%), jumping from buildings or heights (1.7%), and other methods (0.8%). Of those who attempted suicide by consuming poison, 4.2% did it by consuming non-OPC, 11.1% by phenol, 0.8% by rat poison, and 5.8% by other poisons.

The most common cause of suicide attempts was found to be interpersonal relationship (IPR) issues with a spouse (30.8%), followed by IPR issues with others (29.2%). Domestic violence was found to be one of the major causes of suicide attempts (10.0%). Other causes were financial issues (8.3%), ongoing emotional distress (6.7%),

Table 1: Distribution of cases according to their sociodemographic profile and their association with the severity of depression and coping strategy

Sociodemographic variables (*n*=120)	Frequency (%)	Association with severity of depression					Association with coping strategy		
		Severity of depression				Chi-square or Fisher's exact; dF; *P*	Coping strategy		Chi-square or Fisher exact; dF; *P*
Age (years)		M	Mo	S	VS		Ap	Av	
<19	26 (21.7)	8	8	3	7	12.676; 9; 0.178	0	26	3.618; 3; 0.306
20–40	73 (60.8)	8	18	22	25		9	64	
40–60	20 (16.7)	5	3	4	8		2	18	
>60	1 (0.8)	0	0	1	0		0	1	
Sex									
Male	57 (47.5)	4	16	17	20	8.613; 3; 0.035	9	48	5.719; 1; 0.017
Female	63 (52.5)	17	13	132	20		2	61	
Religion									
Hindu	83 (69.2)	14	17	22	30	3.610; 6; 0.729	7	76	0.469; 2; 0.791
Muslim	31 (25.8)	5	10	7	9		3	28	
Christian	6 (5)	2	2	1	1		1	5	
Marital status									
Married	76 (63.3)	13	16	16	31	9.436; 6; 0.151	7	69	2.273; 2; 0.321
Unmarried	41 (34.2)	8	13	13	7		3	38	
Widowed	0 (0)	0	0	0	0		0	0	
Divorced or separated	3 (2.5)	0	0	1	2		1	2	
Education status									
No formal education	28 (23.3)	5	6	12	5	27.411; 15; 0.026	3	25	4.577; 5; 0.470
Primary	49 (40.8)	14	12	10	13		6	43	
Middle	19 (15.8)	0	4	3	12		0	12	
Secondary	12 (10.0)	2	2	3	5		2	19	
Senior secondary	8 (6.7)	0	4	2	2		0	8	
College and above	4 (3.3)	0	1	0	3		0	4	
Domicile									
Rural	85 (70.8)	16	21	26	22	8.821; 3; 0.032	9	76	0.707; 1; 0.324
Urban	35 (29.2)	5	8	4	18		2	33	
Type of family									
Nuclear	65 (54.2)	6	15	20	14	10/427; 6; 0.108	4	61	2.856; 2; 0.240
Joint	49 (40.8)	14	12	10	13		7	42	
Extended	6 (5.0)	1	2	0	3		0	6	
Employment status									
Employed	41 (34.2)	18	17	21	23	5.827; 3; 0.032	3	76	8.005; 1; 0.008
Unemployed	79 (65.8)	3	12	9	17		8	33	
Socioeconomic status									
Upper	2 (1.7)	1	0	1	0	14.331; 12; 0.280	0	2	1.960; 4; 0.743
Upper-middle	12 (10.0)	0	2	5	5		2	10	
Lower-middle	34 (28.3)	7	12	6	9		4	12	
Upper-lower	68 (56.7)	12	15	18	23		5	34	
Lower	4 (3.3)	1	0	0	3		0	4	

M=Mild, Mo=Moderate, S=Severe, VS=Very severe, Ap=Approach, Av=Avoidant. *P<0.05—significant; n=Total number of patients

ongoing physical illness (5.0%), as a consequence of psychiatric illness (5.0%), love-related issues (4.2%), and examination-related issues (4.2%).

Of all the patients attempting suicide, 14.2% of them with depression had a history of non-suicidal self-injury (NSSI), whereas the majority (85.8%) had no history of the same. Only 16.5% had at least one history of suicide attempts, and 16.7% had a family history of suicide. It is observed that 18.3% of the cases had complications due to the suicide attempt. Substance use was very common among those who had attempted suicide and had depression, and it was found that 30% of the cases were alcohol users, 22.5% were smokers, and 1.7% were other drug users.

Table 1 shows that among the various sociodemographical variables, a significant association was found between the severity of depression and sex (*P*-0.035), education status (*P*-0.026), domicile (*P*-0.032), and employment status (*P*-0.032) of the individuals. When the association between coping strategy and sociodemographic factors was assessed, a significant association was found only between the coping strategy used by the patient with depression attempting suicide and the sex of the patients (*P*-0.017) and employment status of the patients (*P*-0.008).

Among the various psychosocial factors, there was a significant association between the severity of depression and a family history of suicide attempts (*P*-0.029) and complications related to a suicide attempt (*P*-0.030).

Table 2: Distribution of cases according to their psychosocial factors and their association with the severity of depression and coping strategy

Psychosocial factors (*n*=120)	Frequency (%)	Association with severity of depression					Association with coping strategy		
		Severity of depression				Chi-square or Fisher's exact; dF; *P*	Coping strategy		Chi-square or Fisher's exact; dF; *P*
Mode of attempt		M	Mo	S	VS		Ap	Av	
Poisoning	63 (52.8)	9	9	8	10	30.024; 30; 0.464	3	33	7.946; 10; 0.544
OPC**	36 (30.0)	1	2	1	1		0	5	
Non-OPC**	5 (4.2)	2	4	2	6		1	13	
Phenol	14 (11.1)	0	0	1	0		0	1	
Rat kills	1 (0.8)	1	2	3	1		1	6	
Others	7 (5.8)	2	7	10	11		1	29	
Hanging	30 (25)	6	4	2	8		5	15	
Medication overdose	20 (16.7)	0	0	2	0		0	2	
Cutthroat	2 (1.7)	0	0	0	2		0	2	
Burning	2 (1.7)	0	0	1	1		0	2	
Jumping	2 (1.7)	0	1	0	0		0	1	
Others	1 (0.8)								
Reasons for attempt									
IPR** issues with spouse	37 (30.8)	10	8	9	10	22.852; 24; 0.529	4	33	9.683; 8; 0.288
IPR** issues with others	35 (29.2)	5	7	11	12		4	31	
Emotional distress	8 (6.7)	0	4	1	3		1	7	
Financial	10 (8.3)	1	4	1	4		0	10	
Love-related issues	5 (4.2)	2	0	1	2		2	3	
Physical	6 (5.0)	0	0	3	3		0	6	
Psychiatric	2 (1.7)	0	0	0	2		0	2	
Exam-related issues	5 (4.2)	1	2	1	1		0	5	
Domestic violence	12 (10.0)	2	4	3	3		0	12	
History of NSSI**									
Yes	17 (14.2)	19	26	27	31	3.433; 3; 0.330	8	95	1.711; 1; 0.189
No	103 (85.8)	2	3	3	9		3	14	
History of suicide attempt									
Yes	20 (16.5)	17	25	27	31	2.298; 3; 0.532	10	90	0.500; 1; 0.689
No	100 (83.5)	4	4	3	9		1	19	
Family history of suicide attempt									
Yes	20 (16.7)	19	28	28	30	8.990; 3; 0.029	9	96	0.350; 1; 0.627
No	100 (83.5)	2	1	2	10		2	13	
Complication									
Yes	22 (18.3)	21	23	26	28	8.959; 3; 0.030	10	88	0.691; 1; 0.362
No	98 (81.7)	0	6	4	12		1	21	
Substance use	65 (54.2)								
Alcohol	36 (30)	2	9	9	16	6.112; 3; 0.106	3	33	0.043; 1; 0.570
Smoking	27 (22.5)	1	6	7	13	6.150; 3; 0.105	0	27	3.516; 1;0.053
Others	2 (1.7)	0	0	0	2	4.068; 3;0.254	0	2	0.205; 1; 0.824

M=Mild, Mo=Moderate, S=Severe, VS=Very severe, Ap=Approach, Av=Avoidant. **P*<0.05—significant; *n*=Total number of patients. **IPR=Interpersonal relationship; **NSSI=Non-suicidal self-injury; **OPC=Organophosphorus compound

However, there was no significant association between various psychosocial factors and coping strategies used by the cases found in the present study.

It was found that when the patients attempting suicide were evaluated based on the HAM-D scale, the majority (33.30%) had very severe depression, followed by severe depression (25.00%). 24.20% had moderate depression, and 17.50% had mild depression.

In our study, it was observed that the primary coping strategy of most cases (90.8%) was avoidant coping strategies, and for the rest (9.2%), it was approach coping strategies.

For Table 3, descriptive statistics have been used.

It was found that behavioural disengagement (5.94±1.807) and venting (5.11±1.823) were the two most frequently used avoidant coping strategies and taking emotional support (4.11±1.922) and informational support (3.48±1.478) from others were the two most common approach coping strategies used by patients attempting suicide with depression. Out of the two other coping strategies, religious belief (6.28±1.415) was most commonly used, even more than the different avoidant and approach type coping strategies. On the other hand, humour (2.70±1.281) was the least commonly used coping strategy when compared with all the types.

For Table 4, an independent-samples *t*-test has been performed to see the mean difference between two coping strategy scores between males and females.

It is observed that there was a significant difference between males and females concerning the use of substance use, behavioral disengagement, and self-blame verities of avoidant coping as primary coping methods. There was also a statistically significant difference between males and females concerning the use of active coping, seeking emotional support, planning, and positive reforming as a primary approach-type coping method.

For Table 5, the Pearson correlation coefficient has been used to see the relationship between two continuous variables.

Table 3: Mean score of different subtypes of coping strategies

Coping strategy	Mean score	SD
Self-distraction	4.89	1.762
Denial	4.09	1.847
Substance use	3.69	2.618
Behavioral disengagement	5.94	1.807
Venting	5.11	1.823
Self-blame	4.82	2.017
Active coping	3.26	1.590
Emotional support	4.11	1.922
Informational support	3.48	1.478
Planning	3.28	1.524
Positive reforming	2.98	1.440
Acceptance	3.33	1.232
Religious beliefs	6.28	1.415
Humor	2.70	1.281

**SD=Standard deviation

It is observed that the correlation coefficient between the score of avoidant-type coping strategy and HAM-D score is 0.506, which is significant at a 10% level of significance. This means that there was a positive correlation between the avoidant-type coping strategy and depression; that is, with an increase in the values of the avoidant score, there was an increase in the values of the depression score ($r = 0.506$, $P \leq 0.001$), whereas the correlation coefficient between the score of approach-type coping strategy and HAM-D score was found to be -0.80, which was not significant at a 10% level of significance. This means that there was a negative correlation between the approach-type coping strategy and depression; that is, with an increase in the values of the approach score, there was a decrease in the values of the depression score ($r = -0.080$, P-0.387).

DISCUSSION

In this cross-sectional study, we investigated the psychosocial factors, severity of depression, and coping strategies among individuals who had attempted suicide. Our findings provide valuable insights into the characteristics of this vulnerable population and shed light on potential areas for intervention and prevention.

One notable observation in our study was the predominance of young adults below the age of 40 among patients attempting suicide. This aligns with previous research

Table 4: Comparison of the subtypes of coping strategies used by males and females

Coping strategy	Sex	Mean±SD	Mean difference	SD difference	95% CI	*P*
Self-distraction	Male	4.82±1.733	0.182	0.323	0.768–0.512	0.693
	Female	4.95±1.800				
Denial	Male	4.30±2.009	0.393	0.337	0.274–1.061	0.246
	Female	3.90±1.682				
Substance use	Male	5.28±2.858	3.027	0.392	2.251–3.802	<0.001
	Female	2.25±1.164				
Behavioral	Male	5.18±1.560	1.459	0.303	2.060–0.859	<0.001
disengagement	Female	6.63±1.744				
Venting	Male	4.82±2.010	0.541	0.331	1.196–0.115	0.105
	Female	5.37±1.609				
Self-blame	Male	4.32±2.097	0.954	0.360	1.666–0.242	0.009
	Female	5.27±1.842				
Active coping	Male	3.68±1.814	0.811	0.282	0.252–1.370	0.005
	Female	2.87±1.251				
Emotional support	Male	3.26 1.576	1.610	0.320	2.244–2.238	<0.001
	Female	4.87 1.896				
Informational support	Male	3.70 1.439	0.416	0.269	0.116–0.948	0.124
	Female	3.29 1.497				
Planning	Male	3.821.723	1.031	0.263	0.510–1.552	<0.001
	Female	2.791.124				
Positive reforming	Male	3.371.779	0.749	0.255	0.244–1.255	0.004
	Female	2.620.923				
Acceptance	Male	3.511.351	0.334	0.224	0.110–0.778	0.139
	Female	3.171.100				
Religious belief	Male	6.09 1.169	0.373	0.258	0.883—0.137	0.151
	Female	6.46 1.595				
Humor	Male	2.74 1.247	0.070	0.235	0.395—0.536	0.070
	Female	2.67 1.320				

SD=Standard deviation, CI=Confidence interval

Table 5: Correlation between depression score and coping strategy scores

Variables	Correlation coefficient, (*r*)	*P*
Ham-D score vs avoidant coping score	0.506	<0.001
Ham-D score vs approach coping score	-0.080	0.387

conducted in India,[9] where a similar trend was reported, highlighting the alarming prevalence of suicide attempts among the younger population. Additionally, the high proportion of suicides occurring in individuals under the age of 44 in India[10] emphasizes the significant social, emotional, and financial burden faced by society.

Gender differences were also evident in our study, with a higher proportion of female patients attempting suicide compared with males, consistent with previous research conducted in India.[10] The stable male-to-female ratio was observed in both our study (1.4:1), and the previous Indian study suggests a consistent pattern. However, it is important to note that our study had a limited sample size, warranting further investigation and evaluation before generalizing these findings.

Religion and education levels were other factors examined in our study. The majority of subjects belonged to the Hindu religion, followed by Muslims and Christians, mirroring the findings of a similar Indian study.[11] However, the findings cannot be generalized as the study sample was small and requires further evaluation. Regarding education, a significant proportion of the subjects had a primary level of education, while a considerable number had no formal education. These results align with previous research conducted in Varanasi, India,[9] emphasizing the need for education and awareness programs targeting vulnerable populations with lower levels of education.

Among the cases included in this study, most (63.30%) were married. This preponderance of married persons attempting suicide was also noted in a study conducted in India.[12]

It was found that the majority of the cases (70.8%) belonged to the rural background, while 29.2% belonged to the urban background. Similar to our study, another Indian study[10] also reported that the majority of the patients (72.4%) in their study were from rural areas. However, this is difficult to conclude that people attempting suicide mostly belong to rural areas, as the majority of patients attending our hospital were from rural areas.

In our study, it was found that 54.2% belonged to a nuclear family, 48.2% belonged to a joint family, and 5.0% had an extended family. Similarly, an Indian study[10] also reported that compared to 95% of the patients attempting suicide who belonged to a nuclear family, only 5% belonged to a joint family. As the joint family can provide more emotional support to a person, the conventional Indian joint family system can protect an individual from taking such a step.

Socioeconomic status, education status, and employment status were found to be important factors associated with suicide attempts. The majority of subjects had no formal or primary level of education (64.1%), were unemployed (65.8%), and belonged to the upper-lower socioeconomic status (56.7%), which is consistent with previous studies conducted in India.[13,14] The financial crisis and unemployment are recognized risk factors for depression and suicidal behavior, underscoring the need for targeted interventions and support systems for individuals facing economic hardships.

The methods employed for suicide attempts were also explored in our study. Poisoning with OPC and hanging were the most common methods used. These findings are in line with several Indian studies,[9,15,16] which have identified OPCs and hanging as prevalent methods for suicide attempts. The easy availability and lax regulation of OPCs in rural and agricultural areas, such as Assam, contribute to their frequent use in South Asian nations.

Psychosocial stressors and life events play a significant role in suicidal behavior, as evidenced by our study. IPR issues, particularly with a spouse or other family members, emerged as the most common cause of suicide attempts. Domestic violence, financial issues, ongoing emotional distress, and psychiatric illness were among the other prominent causes identified. These findings are consistent with research conducted in Nepal,[17] which also highlighted marital and family disputes as leading causes of suicide attempts. Unstable relationships were linked to an increased likelihood of suicide attempts in people with depression,[18] and recent life events have been found in studies from both the West and India to be significant risk factors for intentional self-harm and suicide attempt. Addressing relationship issues, providing support services, and implementing preventive measures to address domestic violence are essential for suicide prevention.

Past or recent history of single or multiple episodes of NSSI, history of suicide attempt, family history of suicide attempt, past or current history of any psychiatric illness, and self or family history of suicide attempt can be considered as a significant risk factor for future suicide attempt,[15,19-22] and when there is ongoing depression in the person, the risk further increases.

Depression severity was assessed among patients attempting suicide, revealing a strong association between the severity of depression and suicidal behavior. Subjects with very severe and severe depression accounted for a significant proportion of patients attempting suicide. This aligns with

previous studies[23,24] that have consistently demonstrated a link between depression severity and suicidal behavior. Depression has been found to be associated with all four aspects of suicide, that is, suicide attempt, suicidal ideation, the thought of oner aspect, and feeling like one wanted to die. It is probably very uncommon for a patient to attempt suicide without experiencing most or all of the other symptoms of depression.[25] Therefore, it is crucial to recognize the significance of depression symptoms in identifying individuals at risk and providing appropriate mental health support and treatment.

When the association between the severity of depression among patients attempting suicide and various sociodemographic and psychosocial factors was assessed, a significant association was found with sex (*P*-0.035). A similar finding was found in a study conducted in Sweden,[26] in which suicidal risk was found to be significantly associated with the male gender. However, no statistically significant association was found with respect to age in our study, which was in contrast to a study conducted in New York.[27] Apart from sex, a significant association was also found between the severity of depression and domicile (*P*-0.032), education status (*P*-0.026), employment status (*P*-0.032) of the individuals, a family history of suicide attempts (*P*-0.029), and complications related to a suicide attempt (*P*-0.030). However, no statistically significant association was found between the severity of depression and other sociodemographic and psychosocial factors. Similarly, different Western and Indian studies reported no statistically significant association between the same.[12,28]

Coping strategies employed by the study population were also examined. Most patients attempting suicide with depression utilized avoidant coping strategies, such as behavioral disengagement and venting, while a minority used approach-type coping strategies. Of the different approach types of coping strategies, taking emotional and informational support from others was the most common coping strategy used by patients with depression and who had attempted suicide. Of the two other coping strategies, religious beliefs were most commonly used, even more, than the different avoidant and approach-type coping strategies and humor was the least commonly used coping strategy when compared with all the types. These findings parallel previous research[29] on maladaptive coping strategies in individuals with mood disorders. Excessive reliance on avoidant coping mechanisms can perpetuate the cycle of distress and increase the risk of suicidal behavior. Therefore, interventions focusing on promoting adaptive coping skills and enhancing resilience are vital components of suicide prevention strategies.

Females were found to be using more avoidant coping strategies compared with males and males were using more approach-type coping strategies compared with females and the difference was significant (*P*-0.017). Males were found to be using active coping, planning, and positive reforming, whereas females tend to use behavioral disengagement and self-blaming as a way of coping with the stressors. This was in accordance with some previous studies,[8,30] which also reported that males used significantly more active coping strategies compared with females. This might be the reason for the females suffering more emotional trauma which they could not cope with in an adaptive way, leading to the development of depression, and as their coping methods are mostly avoidant-type they might end up attempting suicide more.

There is a significant positive correlation between the avoidant-type coping strategy and depression as the correlation coefficient between the score of avoidant-type coping strategy and HAM-D score is 0.506, which is significant at a 10% level of significance. However, the correlation coefficient between the score of the approach-type coping strategy and the HAM-D score is -0.80, which is not significant at a 10% level of significance, indicating that there is a negative correlation between the approach-type coping strategy and depression. This was in accordance with the study conducted in the USA,[8] which also reported that avoidant-type coping behavior was significantly and positively correlated with depression scores for either males, females, or both. Thus, it can be concluded that the coping skills of an individual play a significant role in how he or she deals with various stressful situations in life. Though the avoidant type of coping strategy helps to reduce the problem or lessen the emotional reaction to it in the beginning, by continuously using it as the primary coping method, the person may lend up the individual in developing depressive disorder and also suicidal behavior.

Therefore, understanding the psychosocial factors of suicidal behavior is crucial for predicting, comprehending, and treating this serious issue. Stressful events and the coping strategies individuals employ in response to them play a significant role in the development and persistence of psychological distress, psychopathology, and, ultimately, suicide.

The findings of this study highlight the importance of supporting and encouraging young individuals to develop adaptive and approach-type coping strategies. By equipping them with effective coping skills, we can enhance their ability to navigate difficult circumstances and make informed judgments about coping strategies in different situations. This can significantly impact reducing the risk of developing depressive disorders in the future and preventing suicide.

Limitations of the study

As this was a cross-sectional study, causal influence cannot be determined. We have not included the suicide completers in the study. Most of the sociodemographic and psychosocial correlate data were based on patientstudy, causal influence

cannot be determined. We have not included the suicide completers in the study., there may be a chance of recall bias and underreporting cannot be excluded. All the patients were from the same hospital; therefore, there may be a chance of overgeneralization.

CONCLUSIONS

Promoting adaptive coping strategies involves providing individuals with the necessary tools and resources to effectively manage stress and emotional challenges. This may include psychoeducation on coping skills, stress management techniques, problem-solving strategies, and building social support networks. By empowering individuals with these skills, we can help them build resilience, improve their emotional well-being, and reduce their vulnerability to depression and suicidal ideation.

Additionally, early intervention and prevention efforts are crucial in identifying individuals at risk and providing appropriate support and treatment. Screening for depression and assessing coping strategies should be integrated into routine healthcare practices, particularly among high-risk populations. Identifying individuals with an avoidant coping style can alert healthcare professionals to the need for targeted interventions to help them develop more adaptive coping mechanisms.

Furthermore, community-based initiatives, awareness programs, and mental health campaigns can contribute to reducing the stigma surrounding mental health issues and encourage help-seeking behaviors. Creating a supportive environment that promotes an open dialog about mental health and suicide can help individuals feel more comfortable seeking help and accessing appropriate resources.

It is important to recognize that addressing the psychosocial factors associated with suicide is a complex and multifaceted task. It requires collaboration and coordination among various stakeholders, including mental health professionals, policymakers, educators, and community organizations. By working together, we can implement comprehensive strategies that target the underlying determinants of suicidal behavior and promote mental well-being.

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Conflicts of interest
There are no conflicts of interest.

REFERENCES

1. Van Bergen D, Eylem-Van Bergeijk O, Montesinos AH. Attempted suicide and suicide of young Turkish women in Europe and Turkey: A systematic literature review of characteristics and precipitating factors. PLoS One 2021;16:e0253274.
2. Vadlamani LN, Gowda M. Practical implications of Mental Healthcare Act 2017: Suicide and suicide attempt. Indian J Psychiatry 2019;61(Suppl 4):S750-5.
3. Hawton K, Casañas I Comabella C, Haw C, Saunders K. Risk factors for suicide in individuals with depression: A systematic review. J Affect Disord 2013;147:17-28.
4. Silver MA, Bohnert M, Beck AT, Marcus D. Relation of depression of attempted suicide and seriousness of intent. Arch Gen Psychiatry 1971;25:573-6.
5. Srivastava A. Psychological attributes and socio-demographic profile of hundred completed suicide victims in the state of Goa, India. Indian J Psychiatry 2013;55:268-72.
6. Konkan R, Erkuş GH, Güçlü O, Şenormanci Ö, Aydin E, Ülgen MC, *et al*. Coping strategies in patients who had suicide attempts. Noro Psikiyatr Ars 2014;51:46-51.
7. García FE, Barraza-Peña CG, Wlodarczyk A, Alvear-Carrasco M, Reyes-Reyes A. Psychometric properties of the Brief-COPE for the evaluation of coping strategies in the Chilean population. Psicol Reflex Crit 2018;31:22.
8. Horwitz AG, Hill RM, King CA. Specific coping behaviors in relation to adolescent depression and suicidal ideation. J Adolesc 2011;34:1077-85.
9. Srivastava AS, Kumar R. Suicidal ideation and attempts in patients with major depression: Sociodemographic and clinical variables. Indian J Psychiatry 2005;47:225-8.
10. Vijayakumar L. Indian research on suicide. Indian J Psychiatry 2010;52(Suppl 1):S291-6.
11. Kumar PN, George B. Life events, social support, coping strategies, and quality of life in attempted suicide: A case-control study. Indian J Psychiatry 2013;55:46-51.
12. Lizardi D, Sher L, Sullivan GM, Stanley B, Burke A, Oquendo MA. Association between familial suicidal behavior and frequency of attempts among depressed suicide attempters. Acta Psychiatr Scand 2009;119:406-10.
13. Bhatia MS, Aggarwal NK, Aggarwal BB. Psychosocial profile of suicide ideators, attempters and completers in India. Int J Soc Psychiatry 2000;46:155-63.
14. Ali E, Maksud M, Zubyra SJ, Hossain MS, Debnath PR, Alam A, *et al*. Suicide by Hanging: A study of 334 cases. Bangladesh Med J 2014;43:90-3.
15. Shoib S, Dar MM, Bashir H, Qayoom G, Arif T. Psychiatric morbidity and the socio-demographic determinants of patients attempting suicide in Kashmir valley: A cross-sectional study. Int J Heal Sci Res 2012;2:45-53.
16. Mathew A, Nanoo S. Psychosocial stressors and patterns of coping in adolescent suicide attempters. Indian J Psychol Med 2013;35:39-46.
17. Kafle B, Bagale Y, Dhungana M. Sociodemographic profile and psychiatric diagnosis in attempted suicide. Journal of Psychiatrists Associations of Nepal 2017;5:22.
18. Gramaglia C, Feggi A, Bergamasco P, Bert F, Gattoni E, Marangon D, *et al*. Clinical characteristics associated with suicide attempts in clinical settings: A comparison of suicidal and non-suicidal depressed inpatients. Front Psychiatry 2016;7:109.
19. Choi KH, Wang SM, Yeon B, Suh SY, Oh Y, Lee HK, *et al*. Risk and protective factors predicting multiple suicide attempts. Psychiatry Res 2013;210:957-61.
20. Malone KM, Oquendo MA, Haas GL, Ellis SP, Li S, Mann JJ. Protective factors against suicidal acts in major depression: Reasons for living. Am J Psychiatry 2000;157:1084-8.
21. Ramdurg S, Goyal S, Goyal P, Sagar R, Sharan P. Sociodemographic profile, clinical factors, and mode of attempt in suicide attempters in consultation liaison psychiatry in a tertiary care center. Ind Psychiatry J 2011;20:11-6.
22. Dumais A, Lesage AD, Alda M, Rouleau G, Dumont M, Chawky N, *et al*. Risk factors for suicide completion in major depression: A case-control study of impulsive and aggressive behaviors in men. Am J Psychiatry 2005;162:2116-24.
23. O'Brien G, Holton AR, Hurren K, Watt L, Hassanyeh F. Deliberate self harm--correlates of suicidal intent and severity of depression. Acta Psychiatr Scand 1987;75:474-7.
24. Sachs-Ericsson N, Hames JL, Joiner TE, Corsentino E, Rushing NC, Palmer E, *et al*. Differences between suicide attempters and nonattempters in depressed older patients: Depression severity, white-matter lesions, and cognitive functioning. Am J Geriatr Psychiatry 2014;22:75-85.
25. Uebelacker LA, Strong D, Weinstock LM, Miller IW. Likelihood of suicidality at varying levels of depression severity: A re-analysis of NESARC data. Suicide Life Threat Behav 2010;40:620-7.
26. Brådvik L, Mattisson C, Bogren M, Nettelbladt P. Long-term suicide risk of depression in the Lundby cohort 1947-1997--severity and gender. Acta Psychiatr Scand 2008;117:185-91.
27. McIvor GP, Riklan M, Reznikoff M. Depression in multiple sclerosis as a function of length and severity of illness, age, remissions, and perceived social support. J Clin Psychol 1984;40:1028-33.

28. Tidemalm D, Långström N, Lichtenstein P, Runeson B. Risk of suicide after suicide attempt according to coexisting psychiatric disorder: Swedish cohort study with long term follow-up. BMJ 2008;337:a2205.
29. Liu X, Gentzler AL, George CJ, Kovacs M. Responses to depressed mood and suicide attempt in young adults with a history of childhood-onset mood disorder. J Clin Psychiatry 2009;70:644-52.
30. Baker JP, Berenbaum H. Emotional approach and problem-focused coping: A comparison of potentially adaptive strategies. Cogn Emot 2007;21:95-118.