

Original articles

Clinical characteristics and associated factors with suicide attempts among depressed inpatients with suicidal ideation: A preliminary study in Hue, Vietnam

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Abstract

Background: Depression significantly increases the risk of suicide, particularly in low- and middle-income countries such as Vietnam, where individuals with major depression face an estimated 20-fold higher suicide risk than the general population. Data on clinical characteristics and factors associated with suicidal ideation and attempts among hospitalized depressed patients in Vietnam remain limited, especially in central Vietnam, where Hue Central Hospital serves as a major tertiary referral center for severe psychiatric cases.

Objectives: To describe characteristics of suicidal ideation and attempts among depressed inpatients and identify factors associated with suicide attempts.

Methods: A cross-sectional study was conducted among 38 patients diagnosed with depression (ICD-10 criteria) presenting with suicidal ideation or attempts, admitted to the Mental Health Department of Hue Central Hospital, using convenience sampling. Clinical characteristics were assessed via a self-designed questionnaire. Chi-square and Fisher's exact tests (for expected cell frequencies <5) compared proportions, while bivariate regression identified factors associated with suicide attempts, calculating odds ratios (OR) and 95% confidence intervals (CI).

Results: Suicide attempt prevalence was 36.8% (n = 14). Suicidal ideation occurred between 6 AM and 6 PM in 52.6% of cases. A clear suicide plan was reported by 57.9% of patients, yet only 28.9% disclosed their ideation to others. Attempt methods included medication overdose (64.3%), hanging (14.3%), and cutting (21.4%). Two or more depressive episodes (OR = 5.405; 95% CI: 1.290 - 22.727; p = 0.037) and a history of previous attempts (Fisher's exact test, p < 0.001) were significant risk factors. A trend toward increased risk appeared among patients with psychotic symptoms (OR = 6.111; 95% CI: 0.999 - 37.490; p = 0.077), though not statistically significant.

Conclusion: This preliminary study offers locally relevant data on suicidal behavior among depressed inpatients in Hue, Vietnam. Few patients disclosed their suicidal ideation, and those with multiple depressive episodes or prior attempts warrant close monitoring. Since suicidal ideation most commonly occurred during daytime hours, clinicians should maintain vigilant assessment throughout the day, particularly between 6 AM and 6 PM. These findings should be interpreted cautiously given the small sample size and cross-sectional design; larger prospective studies are needed to confirm these associations.

Keywords: suicidal ideation; suicide attempts; depression; associated factors; Hue, Vietnam.

1. INTRODUCTION

Suicide is an intentional, deliberate act by a victim to cause his or her own death. According to estimates from the World Health Organization (2021), each year there are more than 727,000 deaths by suicide in the world, and more than three-quarters of cases (77%) occur in low- and middle-income countries, including Vietnam [1]. Depression and suicide are

linked, with an estimated 60% of people who die by suicide suffering from major depression [2].

About two-thirds of people who died by suicide were reported to have depression at the time of their death. The risk of suicide in people with major depression is about 20 times higher than in the general population [3]. Research by Keith Hawton et al. (2013) reported on factors associated

with increased risk of suicide such as family history of mental disorders, history of previous suicide attempts, severe depression, feelings of hopelessness, co-occurring anxiety, alcohol abuse. These are also accompanying signs to help doctors predict and prevent the risk of suicide in patients [4]. Depression is a treatable mental disorder and 2/3 of cases of depression respond completely to treatment, and patients can return to a completely normal life after recovery. Therefore, early detection of suicidal ideation, understanding related factors, and preventing suicidal behavior in depressed patients can help save the patient's life and at the same time give them the opportunity to be treated and recovered to contribute their values to life and to the community.

Hue Central Hospital is the leading tertiary referral center psychiatry in North Central Vietnam, receiving complex and severe psychiatric cases referred from provincial hospitals across the region. The Department of Mental Health at this hospital therefore manages a high risk patient population, including patients with depressive disorders who have suicidal ideation or already attempted suicide in the community prior to hospitalization. Despite this clinical burden, data on the characteristics of suicidal ideation and suicide attempts including the means used and factors associated with suicidal behavior in this patient population remain scarce. Such data are essential for informing targeted prevention strategies both at the community level and within clinical practice in central Vietnam.

This study aimed to: (1) Describe the characteristics of suicidal ideation and suicide attempts among patients with depression; (2) Analyze factors associated with suicide attempts in the study subjects.

2. SUBJECT AND METHODOLOGY

2.1. Subjects

A total of 38 patients diagnosed with a depressive episode or recurrent depressive disorder according to the ICD-10 diagnostic criteria (coded as F32 or F33) with suicidal ideation or suicide attempt were treated as inpatients at the Department of Mental Health - Hue Central Hospital, Vietnam.

Exclusion criteria: Patients with severe cognitive impairment who could not answer the interview questions. Patients who did not agree to participate in the study.

2.2. Methodology

Cross-sectional study with a sample size of 38

patients, selected by convenience sampling method, all patients who met the diagnostic criteria of depressive episode or recurrent depressive disorder according to the diagnostic criteria of ICD-10 with suicidal ideation or suicidal attempts. Exclusion criteria: Patients were excluded if they had any of the following: (1) organic brain disorders or systemic medical conditions known to affect cerebral function; (2) comorbid substance use disorder, including alcohol dependence or illicit drug dependence; (3) bipolar affective disorder, current episode depressive (ICD-10: F31); (4) suicidal ideation or suicide attempt attributable to other primary psychiatric diagnoses, including schizophrenia or schizoaffective disorder; (5) severe cognitive impairment precluding participation in a structured interview; or (6) refusal to provide informed consent. The participants hospitalized at the Department of Mental Health, Hue Central Hospital from March 2023 to December 2023. The diagnosis was made by two independent psychiatrists who were not included in the research group. These psychiatrists all have clinical experience of 5 years or more.

A self-designed questionnaire was used to describe the clinical characteristics of suicidal ideation and suicide attempt. The questionnaire was developed by the research team based on clinical experience at the Department of Mental Health, Hue Central Hospital, and informed by variables consistently reported in the relevant literature on suicidal behavior in depressive disorders [4,5,6,7,8]. The collected variables included demographic factors such as: age, gender, occupation, education level, economic status, and marriage. Factors related to clinical characteristics of suicidal ideation and behavior such as: time of ideation, suicide attempt, number of depressive episodes, psychotic symptoms or not, history of suicidal ideation, sharing suicidal ideation with others, planning suicide. Prior to data collection, the questionnaire was piloted on five inpatients meeting the inclusion criteria, who were not subsequently enrolled in the main study. The pilot phase assessed item comprehensibility and clarity of wording; items requiring repeated clarification were revised accordingly. We acknowledge that formal psychometric validation was not performed; however, as the questionnaire was designed to collect factual clinical and observational data rather than to measure latent psychological constructs, internal consistency analysis (e.g., Cronbach's alpha) is not the primary metric of validity for this instrument type. Using Chi-square test and Fisher's exact test to compare two proportions, bivariate

regression analysis to find factors related to suicide attempt, using odds ratio OR with 95% confidence interval in statistical analysis. Data processing using SPSS 20.0 software. The topic has been approved by the biomedical ethics council of Hue University of Medicine and Pharmacy with code B24.

3. RESULTS

Table 1. Socio-demographic characteristics of the participants

Characteristics	Number (n = 38)	Percentage (%)
Average of age (years) $\pm$ SD	43.42 $\pm$ 16.44	
Gender	Female	30
	Male	8
Marital Status	Married	27
	Single/divorced/widowed	11
Level of education	Under high school	16
	High school and above	22

Table 1 presented the socio-demographic characteristics of the 38 participants. The mean age was 43.42 $\pm$ 16.44 years, and the majority were female (78.9%). Most participants were married (71.1%), and more than half had completed high school or above (57.9%).

Table 2. Some clinical features of depression among the participants

Characteristics	Number (n)	Percentage (%)
Age of depressive onset	< 20	4
	20 - 40	15
	40 - 60	12
	> 60	7
Stressful event before this depressive episode	Yes	35
	No	3
Number of depressive episode	1	23
	2 and above	15
Psychotic Symptoms	Yes	7
	No	31
Suicide attempt	No	24
	Yes	14

Table 2 presented that the most common age of depressive onset was between 20 and 40 years (39.5%). The majority of patients (92.1%) experienced a stressful event before the current depressive episode. More than half (60.5%) were experiencing their first depressive episode, while 39.5% had two or more episodes. Psychotic symptoms were present in 18.4% of patients. Overall, 36.8% of participants had made a suicide attempt.

Table 3. Characteristics of suicidal ideation among the participants

Characteristics	Number of patients (n = 38)	Percentage (%)
Time suicidal ideation arises during the day	6 AM - 6PM	20
	> 6 PM - < 6 AM	7
	Anytime in the day	11

Nature of suicidal ideation arising	Sudden	5	13.1
	Gradual	21	55.3
	Unclear	12	31.6
Suicidal Planning	Yes	22	57.9
	No	14	36.8
	Hesitant	2	5.3
Sharing suicidal ideation to others	Yes	11	28.9
	No	27	71.1
Means of suicidal attempt	Chemicals/pills	9	23.7
	Hanging	2	5.2
	Knife	3	7.9

Table 3 described that suicidal thoughts most commonly occurred during daytime hours (6 AM - 6 PM) in 52.6% of cases, while 29% reported ideation at any time of day. The onset of suicidal ideation was gradual in 55.3% of patients and sudden in 13.1%. A clear suicide plan was reported by 57.9% of patients. Notably, only 28.9% disclosed their suicidal ideation to others, while 71.1% did not. Among the 14 patients (36.8%) who made a suicide attempt, the most common method was medication or chemicals (64.3%), followed by knives (7.9%) and hanging (5.2%).

Table 4. The association between gender, marital status, stressful events and suicidal attempt

Characteristics		Yes		No		p	OR (95% CI)
		n = 24	%	n = 24	%		
Gender	Male	5	35.7	3	12.5	0.117	1
	Female	9	64.3	21	87.5		0.257 (0.050 - 1.313)
Marital status	Married	8	57.1	19	79.2	0.266	1
	Single/divorced/ widowed	6	42.9	5	20.8		0.351 (0.083 - 1.490)
Stressful events	Yes	13	92.9	22	91.7	1.000	1.182 (0.097 - 14.347)
	No	1	7.1	2	8.3		1

Fisher's exact test was applied when expected cell frequencies were less than 5.

Table 4 showed that no statistically significant association was found between gender ($p = 0.117$), marital status ($p = 0.266$), or exposure to stressful events ($p = 1.000$) and suicide attempts.

Table 5. Some clinical characteristics associated with suicidal attempt

Characteristic		Yes		No		p	OR (95% CI)
		n = 24	%	n = 24	%		
Number of depressive episode	1	5	35.7	18	75	0.037	1
	2 and above	9	64.3	6	25		5.405 (1.290 - 22.727)
Psychotic symptoms	Yes	5	35.7	2	8.3	0.077	6.111 (0.999 - 37.490)
	No	9	64.3	22	91.7		1

History of previous suicidal attempt	Yes	12	85.7	0	0	< 0.001	N/A
	No	2	14.3	24	100		1

Fisher's exact test was applied when expected cell frequencies were less than 5.

Table 5 presented that patients with two or more depressive episodes had significantly higher odds of suicide attempt compared to those with a single episode (OR = 5.405; 95% CI: 1.290 - 22.727; $p = 0.037$). Regarding psychotic symptoms, while no statistically significant association was found (OR = 6.111; 95% CI: 0.999 - 37.490; $p = 0.077$), the trend suggested that the presence of psychotic symptoms was associated with higher odds of suicide attempt. A history of previous suicide attempts was strongly associated with current suicide attempt (Fisher's exact test, $p < 0.001$); OR could not be calculated due to a zero cell in the no-attempt group.

4. DISCUSSION

The study subjects had an average age of 43.42 ± 16.44. The proportion of women (78.9%) was higher than that of men (21.1%). The majority of the study subjects were married (71.1%) and more than half of them had level of education with high school or higher (57.9%) (Table 1).

39.5% of patients had onset of depression between the ages of 20 and 40, most of whom experienced stressful events before the onset of this depressive episode. 60.5% of patients experienced the first depressive episode, 18.4% of whom had psychotic symptoms (Table 2).

The incidence of suicide attempt among depressive patients with suicidal ideation was 36.8%. This rate in our study is higher than that reported by Srivastava and Kuma (2005), who found a rate of 16.6% [5]. Ye et al. (2022) studied on 917 outpatients with major depressive disorder, showed that the rate of suicidal attempt was 19.5%. There was a difference in the rate of attempted suicide in our study with Ye's study because this author studied outpatients, while our study was inpatients with suicidal ideation [6]. The higher rate observed in our study compared to Ye et al. may be attributable to differences in clinical setting and patient severity rather than reflecting a true epidemiological difference. Our study was conducted at Hue Central Hospital, a tertiary referral center, where inpatients with major depression tend to represent more severe clinical presentations, including higher rates of suicidal ideation and prior suicidal behavior, compared to outpatient populations. This referral level selection bias where

patients with greater psychiatric severity and suicide risk are preferentially admitted to inpatient care likely inflates the observed rate of suicidal attempts in our sample relative to community-based or outpatient studies such as that of Ye et al. Therefore, direct comparisons between inpatient and outpatient suicidal attempt rates should be interpreted with caution, as the two populations differ substantially in illness severity, level of care, and risk profile. However, when compared with the study results of Nguyen Thi Thu Huyen (2020), the rate of attempted suicide in our study is similar to that of this study (33.3%) [7].

52.6% of patients had suicidal thoughts or suicide attempt during the day. According to a study by Bui Quang Huy (2013), most patients will engage in suicidal behavior during the day, choosing a time when no one was home or no one was paying attention to engage in suicide attempt [8]. A study by Nguyen Thi Thu Huyen (2020) also showed similar results [7]. A concerning fact was that 57.9% of patients planned to make a suicide attempt. Patients who plan to attempt suicide were more likely to die because their determination to attempt suicide is higher. Therefore, it is necessary to closely monitor these patients 24/7 to prevent suicidal behavior and provide strict treatment and psychological support. About 3/4 of the patients did not share with people around them (relatives, close friends) about their suicidal ideation and plans for attempted suicide (71.1%), more than twice as many as the number of patients who reported this intention, this result was similar to the study of Duong Thi To Uyen (2022) [9]. The patients in our study were mostly middle-aged and were more attached to their families than to their friends. They were the mainstays of the family, so when they had suicidal thoughts, they often felt afraid that their families would worry and it was difficult to find a friend to share with, so they did not want to announce their intentions and had little opportunity to share their feelings and stress with their families and relatives, so this was also a difficult factor for their relatives to observe and detect suicidal thoughts from the patients to prevent suicide attempt. Most of the patients who attempted suicide in our study used pills/chemicals as a means of suicide. There were also other means such as

hanging and knives. This result was similar to the study of Kim et al. (2023), which is explained by the similarity in geographical area and culture of Asian people, so suicide by pills/medication, hanging and knives is more accessible [10], while guns, hanging and drowning are considered fatal suicide methods in the West [2, 11, 12]. It is important to emphasize that all suicide attempts in this study occurred at home or in the community prior to hospitalization, and the patients were subsequently admitted to Hue Central Hospital for inpatient treatment. The means used therefore reflect what was available to patients in their domestic environment, not the inpatient setting. Medication or chemicals were the most commonly used means (64.3%), which is consistent with findings from other Vietnamese and Asian studies [7, 8, 10]. Patients with depression are commonly prescribed psychotropic medications including antidepressants, benzodiazepines, and hypnotics which are kept at home and thus represent the most immediately accessible means of self-harm. Overdose is also often perceived as a less painful and more private method, which may align with the observed tendency of the majority of patients (71.1%) to conceal their suicidal ideation from those around them. This underscores the importance of means restriction strategies at the community and family level: clinicians should prescribe the minimum necessary quantity of medication per dispensing, and family members should be counseled to store medications securely and out of easy reach, particularly during high-risk periods. International evidence consistently demonstrates that limiting access to means is one of the most effective suicide prevention strategies, reducing overall suicide rates without a proportional increase in substitution to other methods. Sharp instruments, specifically knives, accounted for 21.4% of suicide attempts, a notable proportion that warrants attention. Unlike medication overdose, which typically allows a longer window for medical intervention, self-inflicted wounds with knives can result in rapid and life-threatening injury, particularly when major vessels are involved. Knives are ubiquitous household items in Vietnamese homes and, unlike firearms, require no acquisition effort, making them a readily available means during moments of acute suicidal crisis. The fact that 13.1% of patients reported sudden-onset suicidal ideation is clinically relevant here: impulsive suicidal acts are more likely to rely on whatever means is immediately at hand, and knives fit this profile. These findings suggest that counseling families on

restricting access to sharp objects during vulnerable periods, alongside medication storage guidance, represents a practical, low-cost prevention measure that can be delivered as part of routine discharge planning or outpatient care. Taken together, the pattern of means use in this study highlights that community-level means restriction, rather than inpatient-focused interventions, is the appropriate target for suicide prevention in this population.

Our study did not find a statistically significant association between gender, marital status, and suicidal attempts of patients. The results on the association between socio-demographic factors and suicidal behavior are inconsistent. According to the study of Thanh et al. (2005), in the rate of attempted suicide in Vietnam in general, women have a rate 1.7 times higher than men [13]. According to the study Li et al. (2017) found that female gender increases the risk of suicide in depressed patients by 2.3 times compared to men (OR = 2.62; 95% CI 1.45 - 4.76), living alone also increases the risk of suicide by 2.5 times [14]. A systematic review of 9.4 years found that demographic indicators were generally risk or protective factors for suicide but the correlations were weak, and no individual demographic factors were strongly correlated [15]. The differences between studies may come from differences in sample size and different study subjects. According to Lin et al. (2018), the experience of stressful life events such as family conflict, loss of a loved one, and involvement with legal/disciplinary problems as well as the severity of trauma are associated with an increased risk of suicide in patients with recurrent depression [16]. According to Le Moullet et al. (2020), prolonged stressors from childhood, especially child abuse, are also associated with the appearance of major depression in people over 18 years of age and may also increase the risk of suicide [17]. According to the study of Nguyen Thi Thu Huyen et al. (2020), there was a statistically significant association between psychological trauma and patients' suicidal behavior ($p = 0.024$; OR = 3.8) [7]. However, our study found that there was no statistically significant association between stressful events and suicidal behavior in the current episode of the disorder ($p = 1.000$; OR = 1.182). This may be due to differences in sample size along with differences in the ability to react and cope with stress, and differences in family and social support, as well as access to treatment among the study subjects.

Our study showed a statistically significant association between recurrent depressive disorder (patients with 2 or more depressive episodes) and

suicide attempt during the current episode ($p = 0.037$; OR = 5.405, 95% CI: 1.290 - 22.727) (Table 5). This is consistent with the study of Mechri et al. (2013), who found that mood changes significantly increased the risk of suicidal behavior in patients with recurrent depressive disorder [18]. Furthermore, Courtet et al. (2010) showed that many risk factors were associated with suicidal behavior in patients with recurrent depression and emphasized important factors such as disorder severity, partial treatment response, chronicity, and recurrence [19]. At the same time, Vasyagina et al. (2023) noted that features such as cognitive impairment, self-blame, low adaptability, negative thoughts, bleak outlook on the future, and pessimism are risk factors for suicidal behavior in patients with recurrent depressive disorder [20]. This again emphasizes the association between recurrent depressive disorder and the risk of suicidal behavior.

Our results are consistent with studies by both domestic and international authors regarding the association between a history of suicide attempts and suicidal behavior in patients with depression during the current episode [4, 21, 22]. According to Tuan et al. (2009), in a study of patients who attempted suicide by drug overdose at Bach Mai Hospital, Hanoi, it was found that a history of prior suicide attempts accounted for 2.9% of patients with current suicide attempts [21]. A systematic review by Hawton et al. (2013) on patients with depressive episodes (F32) and recurrent depression (F33) according to ICD-10 also indicated that a history of prior suicide attempts is a risk factor for suicidal behavior, with an odds ratio (OR = 4.84; 95% CI = 3.26 - 7.20) [4]. Our study similarly found an association between a history of suicide attempts and suicidal behavior in the current episode of depression ($p < 0.001$) (Table 5).

Regarding the association between psychotic symptoms and suicide attempts, our data revealed a clinically meaningful trend that did not reach statistical significance, likely due to the limited sample size. Among patients who attempted suicide, 35.7% presented with psychotic symptoms, compared to only 8.3% among those who did not - representing a more than fourfold difference in prevalence. The odds ratio of 6.111 (95% CI: 0.999 - 37.490; $p = 0.077$) suggests a strong tendency toward increased risk of suicide attempt in the presence of psychotic symptoms, yet the wide confidence interval and borderline p -value reflect insufficient statistical power rather than a true absence of association. Several authors have noted that the suicide rate in patients with depression and psychotic symptoms

is significantly higher compared to those with depression without psychotic symptoms [23-26]. The meta-analysis by Gournellis et al. (2018), which included 9 studies with 33,873 patients, of whom 828 died by suicide, found that the presence of psychotic symptoms increases the risk of suicide in patients with major depression [25].

Miller and Chabrier's (1987) retrospective study, conducted on 45 patients with recurrent depression and psychotic symptoms who died by suicide, found that persecutory delusions combined with self-accusatory delusions triggered intense suicidal behavior in patients [27]. The lack of an association between psychotic symptoms and suicide attempts in our study contrasts with the broader literature, which frequently highlights a heightened risk of suicidality in patients with psychotic depression. This discrepancy may stem from several factors, including our limited sample size, which could reduce the statistical power to detect significant associations. Additionally, variations in study design, patient demographics, and the specific nature of psychotic symptoms (e.g., types of delusions or hallucinations) may contribute to these differences. For instance, Miller's 1987 study specifically identified the combination of persecutory and self-accusatory delusions as a potent driver of suicidal behavior, suggesting that certain subtypes of psychotic symptoms may have a stronger influence on suicidality than others [27].

Recent literature further supports the link between psychotic symptoms and increased suicide risk in depression. A meta-analysis by Zalpuri and Rothschild (2016) found that patients with major depressive disorder (MDD) and psychotic features had a significantly higher risk of suicide attempts (OR = 2.45; 95% CI = 1.89 - 3.17) compared to those with non-psychotic MDD. The authors suggested that the presence of delusions, particularly those involving guilt or persecution, may exacerbate feelings of hopelessness, a well-established risk factor for suicidality [23]. Another study by Gournellis et al. (2018) explored the role of specific delusional content, noting that patients with mood-congruent delusions (e.g., guilt, worthlessness) were more likely to exhibit suicidal ideation or behavior than those with other types of delusions [25].

The lack of statistical significance in our study should therefore not be interpreted as evidence against an association between psychotic symptoms and suicide attempts. Rather, it reflects the well-recognized limitation of small samples in detecting moderate-to-large effect sizes with adequate

power. This highlights the importance of replicating this finding in larger studies, and clinicians should continue to regard psychotic symptoms as a significant clinical warning sign for suicidal behavior in depressed patients, irrespective of the present study's statistical limitations.

To further elucidate this relationship, future research should aim to standardize the assessment of psychotic symptoms and employ larger, more diverse samples to enhance generalizability. Longitudinal studies tracking the progression of psychotic symptoms and their impact on suicidality could also provide valuable insights. Moreover, integrating neuroimaging or biomarker data, as explored in recent studies (Sudol & Mann, 2017) may help identify neurobiological underpinnings of the link between psychotic depression and suicide risk, potentially informing targeted interventions [28].

Strengths and Limitations

Several strengths enhance the study's contribution to the literature. First, by focusing on inpatients with suicidal ideation or attempts, it targets a high-risk population, offering valuable data on a severe subset of depressed patients. Second, the study addresses a research gap in low- and middle-income countries like Vietnam, where mental health data are scarce, providing culturally relevant insights. Third, the comprehensive self-designed questionnaire captured both clinical and socio-demographic factors, enabling a holistic analysis.

Despite these strengths, our study has several limitations. The small sample size ($n = 38$) limits the generalizability and statistical power of our findings, precluding multivariate regression analysis to control for confounding variables; future studies with larger samples are needed to identify independent predictors of suicide attempt in this population. The convenience sampling method may introduce selection bias, and the cross-sectional design precludes causal inferences. Additionally, the self-designed questionnaire was not formally validated through psychometric testing (e.g., content validity index scoring by an independent expert panel); although it was piloted and revised prior to use, and collected factual observational data rather than latent constructs, future studies should employ a formally validated instrument or develop and validate a context-specific tool for this clinical population in Vietnam.

5. CONCLUSION

This study highlights a high prevalence of suicide attempts (36.8%) among depressed inpatients in

Hue, Vietnam, with recurrent depressive episodes and a history of prior attempts as significant risk factors. The low rate of sharing suicidal ideation (28.9%) emphasizes the need for proactive screening and culturally sensitive interventions. Enhanced monitoring during daytime hours and targeted support for patients with recurrent depression or prior attempts are essential to prevent suicidal behavior and promote recovery. Notably, medication or chemicals (64.3%) and knives (21.4%) were the most common means of suicide attempts, all of which occurred at home prior to hospitalization. These findings emphasized the importance of community-level means restriction strategies, including counseling families on safe medication storage and limiting access to sharp instruments during high-risk periods. Enhanced vigilance for patients with recurrent depressive episodes or a prior history of suicide attempts, and targeted psychoeducation for both patients and caregivers, are essential to prevent future suicidal behavior and promote recovery. Due to the small sample size, these findings should be interpreted with caution and require replication in larger studies.

Ethics Approval

This study involved human participants and was approved by the biomedical ethics committee of Hue University of Medicine and Pharmacy (No B24, issued 30/3/2023). All participants provided informed consent before participating in the study. Participation was voluntary, and patients/ relatives were fully informed about the purpose of the study. This study was carried out in compliance with the Declaration of Helsinki.

Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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