Journal of Psychiatry Research & Reports

Research Article

Suicidal Behaviour and Its Correlates Among Psychiatric Outpatients in Lagos, Nigeria

Olushola Olibamoyo[1,2]*, Ifeoluwa Daniel[2] and Babasola Adetiloye[2]

[1]*Department of Behavioural Medicine, Lagos State University College of Medicine, Ikeja, Lagos, Nigeria.*

[2]*Department of Psychiatry, Lagos State University Teaching Hospital, Ikeja, Lagos, Nigeria.*

Abstract

Background: Suicide remains a significant but under-documented public health problem in Nigeria, particularly among psychiatric outpatients. Recent local data on suicidal behaviour, validated screening tools, and associated clinical predictors are scarce. This study assessed the prevalence and determinants of suicidal behaviour among adult psychiatric patients attending a tertiary outpatient clinic in Lagos.

Methods: A cross-sectional study was conducted at the Lagos State University Teaching Hospital (LASUTH) from 1–30 September 2025. Consecutive adults aged 18–64 years were recruited until the calculated minimum sample size of 146 was reached. 152 patients completed the survey. Psychiatric diagnoses were made by consultant psychiatrists using ICD-10 criteria. Suicidal behaviour was assessed with the Suicidal Behaviours Questionnaire-Revised (SBQ-R), using the validated Nigerian cut-off ≥8. Hopelessness was measured with the Beck Hopelessness Scale. Variables significant at $p \leq 0.05$ on bivariate analysis were entered into a multivariable logistic regression model, with adjusted odds ratios (AORs) and 95% confidence intervals (CIs) reported.

Results: The lifetime prevalence of suicidal ideation and attempts was 48.7% and 28.9%, respectively. Current suicidal behaviour (SBQ-R ≥ 8) was present in 30.3% of participants. After adjustment, psychotic symptoms (AOR = 11.91, 95% CI = 2.07–68.38, p = 0.005) and severe hopelessness (AOR = 101.11, 95% CI = 12.01–851.00, $p < 0.001$) were the strongest independent predictors of suicidal behaviour. Age (≤35 years), diagnosis (Depression), and medication non-adherence were significant in the bivariate association with suicidal behaviour but were not significant in the final model.

Conclusion: Suicidal behaviour is common among psychiatric outpatients in Lagos. Severe hopelessness and psychotic symptoms, rather than diagnosis alone, were the key independent predictors. Routine screening using validated tools such as the SBQ-R and targeted management of hopelessness and psychotic symptoms may strengthen suicide-prevention efforts in Nigerian outpatient settings. Further multicentre studies with longer data-collection periods are recommended to improve representativeness.

Keywords

Suicidal behavior, Psychiatric patients, Mental illness, Hopelessness, Medication non-adherence, Nigeria.

Corresponding Author Information

Olushola Olibamoyo

Department of Behavioural Medicine, Lagos State University College of Medicine, Ikeja, Lagos, Nigeria.

Received: 29 November 2025; **Accepted:** 02 January 2026; **Published:** 11 January 2026

Citation: Olushola Olibamoyo, Ifeoluwa Daniel, Babasola Adetiloye. Suicidal Behaviour and Its Correlates Among Psychiatric Outpatients in Lagos, Nigeria. J Psychiatry Res Rep. 2026; 3(2):1-9.

Introduction

Suicide is a major global public health concern and ranks among the top 20 causes of death worldwide, accounting for an estimated 800,000 deaths annually [1]. Each suicide is estimated to profoundly affect about 135 individuals, resulting in more than 108 million people worldwide being negatively impacted by suicide every year [2]. For every completed suicide, approximately 25 attempts are made, reflecting the broader burden of suicidal behaviour. This behaviour exists along a continuum, ranging from passive thoughts that life is not worth living, to active suicidal ideation, planning, and attempts, with ideation often preceding more severe behaviours [3]. Although the global prevalence of suicide is well recognized, its true prevalence in many low- and middle-income countries (LMICs), including Nigeria, remains uncertain. Despite increasing concern since the late 20th century, available data suggest that the actual incidence of suicide may be 10 to 20 times higher than official statistics indicate [4].

Suicidal behaviour is a multifactorial phenomenon with complex and interrelated biological, psychological, and social determinants, yet its precise aetiology remains poorly understood [5]. Among the various contributing factors, psychiatric disorders have consistently emerged as the most significant. Evidence, primarily from high-income countries (HICs), indicates that between 80% and 90% of individuals who die by suicide [6-8] and up to 92% of those who attempt suicide have an identifiable psychiatric disorder [9].

Nearly all forms of mental illness are associated with an elevated risk of suicidal ideation, suicide attempts, or completed suicide [10]. Even among psychiatric outpatients who have never been hospitalized, the risk of suicide is estimated to be three to four times greater than in the general population [11]. The relationship between psychiatric disorders and suicidal behaviour is complex and influenced by multiple interacting factors. Mishara and Chagnon [12] proposed that suicide may result from the combination of an acute crisis, lack of social support, poor coping mechanisms, and access to means. Shared biological and environmental vulnerabilities such as genetic predispositions, early life adversity, and cognitive distortions further explain this link [10]. Moreover, social challenges like stigma, discrimination, and inadequate treatment can intensify suicidal risk, underscoring the importance of effective and comprehensive mental health care [10].

Some researchers have suggested that psychiatric disorders may play a less important role in suicidal behaviour within low- and middle-income countries (LMICs), and that the nature of such behaviour may differ from that observed in high-income countries (HICs) [13]. Evidence from LMICs shows considerable variation in the reported prevalence of psychiatric disorders among individuals exhibiting suicidal behaviour, with estimates ranging from 10% to 88% [14,15]. These differences may be influenced by variations in health systems, the legal status of suicide, help-seeking behaviour, economic challenges, and cultural perceptions of mental illness and suicide [16].

Understanding the relationship between psychiatric disorders and suicidal behaviour is therefore essential to ensure that scarce mental health resources in LMICs are effectively directed toward appropriate prevention and support services. To date, there is limited research on suicidal behaviour among psychiatric patients in Nigeria. Against this background, the present study seeks to determine the prevalence of suicidal behaviour and identify associated risk factors among patients with psychiatric disorders attending the outpatient department of a tertiary hospital in Lagos, Nigeria.

Methodology

Study Design and Setting

This was a cross-sectional study conducted between September 1 and 30, 2025, among patients attending the psychiatric outpatient clinic of the Lagos State University Teaching Hospital (LASUTH), Ikeja. LASUTH is a major tertiary healthcare facility located in Lagos, Nigeria. Although it is a tertiary institution, the hospital operates an open-access, walk-in policy, providing specialized care across several departments, including psychiatry, internal medicine, surgery, obstetrics and gynaecology, paediatrics, and diagnostic laboratory services. It also serves as a teaching and research centre, offering both clinical and community-based services.

Study Population

The study population comprised adult patients attending the psychiatry outpatient clinic of LASUTH during the study period who met the eligibility criteria.

Inclusion Criteria

Participants were eligible if they were between 18 and 64 years of age, demonstrated fair insight, and provided informed consent to participate in the study.

Exclusion Criteria

Patients who were non-communicative due to severe psychotic or manic symptoms, or those with significant cognitive or intellectual impairments, were excluded from the study.

Sample Size Determination

The sample size was determined using the formula for estimating a single population proportion. In the absence of prior Nigerian data on suicidal behaviour among psychiatric outpatients, an expected prevalence of 50% was assumed, with a 95% confidence interval and a 5% margin of error. Based on an average monthly outpatient attendance of 200 unique patients, the calculated sample size was 132. To account for a potential 10% non-response or attrition rate, the final target sample size was adjusted to 146 participants.

Sampling procedure

All patients attending the psychiatry outpatient clinic of LASUTH during the data collection period who fulfilled the eligibility criteria were included in the study by using a consecutive sampling technique until the required sample size was achieved. Psychiatric diagnoses were made by consultant psychiatrists using ICD-10 criteria.

Instruments and data collection procedure

The questionnaire was developed based on sources from previous studies, with some modifications to fit into our setup. The structured questionnaire contained questions in two sections. The first section included the following study variables: lifetime prevalence of suicidal attempt and ideation, possible risk factors like socio-demographic variables and psychiatric disorders, methods of suicidal attempt, and ways of survival from the attempted suicide. The second is the Suicidal Behaviours Questionnaire revised (SBQ-R).

The Suicidal Behaviours Questionnaire-Revised (SBQ-R) is a self-report questionnaire for suicidal behaviour. These shortened versions of the SBQ comprise 4 items and employ a Likert-type scale to assess suicidal behaviour history, current suicide state, self-appraisal, and future suicidal behaviour predictions [17]. "Have you ever thought about or attempted to kill yourself?" is one example. (Rated from 1 to 4); "How often have you considered suicide in the last year?" (Rated on a scale of 1-5); "Have you ever told someone that you were going to commit suicide, or that you might do it?" (Rated from1 to 3) "How likely is it that you will attempt suicide someday?" (Rated 0-6). A wide variety of information is acquired in a relatively short administration with a sensitivity of 80%% and specificity of 91%% for the adult clinical population with a score of 3 to 18 and a cut-off point of 8 [17]. The SBQ-R has been validated in Nigerian populations [18]. In this study, Cronbach's α was 0.829. A pretest was done, and a common understanding was reached between the data collectors to avoid interrater variability. It was administered by psychiatry resident doctors working in the clinic.

Ethical Considerations

All participants provided written informed consent before inclusion in the study. The research was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. Ethical approval was obtained from the Health Research Ethics Committee of the researchers' affiliated institution. To maintain confidentiality, participants completed the questionnaires anonymously. They were informed that participation was voluntary, that they could withdraw at any point without penalty, and that refusal to participate would not affect their treatment, care, or dignity in any way.

Data Analysis

Data were coded, cleaned, and analyzed using the Statistical Package for the Social Sciences (SPSS), version 26. Descriptive statistics were used to summarize participants' socio-demographic and clinical characteristics. Bivariate analyses were performed using Chi-square tests to examine associations between independent variables and suicidal behaviour. Variables with a p-value ≤ 0.05 in the bivariate analysis were subsequently entered into a binomial logistic regression model to identify independent predictors of suicidal behaviour. Adjusted odds ratios (AORs) with 95% confidence intervals (CIs) were calculated, and statistical significance was set at $p < 0.05$. Model fit was assessed using the Hosmer–Lemeshow goodness-of-fit test, which yielded a value of 0.776, indicating an adequate model fit.

Results

Socio-demography

A total of 152 patients participated in the study, slightly exceeding the calculated minimum sample size of 146. Among the respondents, 67.1% were female, and more than half (52.0%) were between 18 and 35 years of age. Nearly half (49.3%) were single, 46.7% had attained tertiary education, and 32.9% were unemployed (Table 1). Regarding income, 34.9% reported having no source of income, while 23.0% earned a monthly income of <50,000 (approximately USD 33). In terms of living arrangements, the majority (85.5%) resided with family members, whereas 10.5% lived alone (Table 1).

Table 1: Socio-demographic distribution of patients with mental illness attending the Psychiatry Outpatient department. Total number of participants (N= 152).

Variable	Category	Frequency (%); Mean, SD
Age (Years)	≤ 35 years > 35 years	79 (52.0) 73 (48.0) Mean= 37.22 years SD = 13.06 Range = 18.00 – 64.00 years
Gender	Female Male	102 (67.1) 50 (32.9)
Marital status	Single Married Divorced Separated Widowed	75 (49.3) 47 (30.9) 18 (11.8) 6 (3.9) 6 (3.9)
Religious status	Christianity Islam Traditional Others	107 (70.4) 42 (27.6) 2 (1.3) 1 (0.7)
Tribe	Yoruba Igbo Hausa Other	98 (64.5) 35 (23.0) 2 (1.3) 17 (11.2)
Level of Education	No formal education Primary Secondary Tertiary Postgraduate	1 (0.7) 2 (1.3) 44 (28.9) 71 (46.7) 34 (22.4)
Employment status	Unemployed Self employed Employed	50 (32.9) 54 (35.5) 48 (31.6)
Monthly income	None <50,000 Naira 50,000 -99,999 Naira 100,000- 149,999 Naira 150,000 Naira and above	53 (34.9) 35 (23.0) 22 (14.5) 21 (13.8) 21 (13.8)
Living condition	Alone With family With friends Group home homeless	16 (10.5) 130 (85.5) 2 (1.3) 2 (1.3) 2 (1.3)

Clinical variables

Among the total respondents, 42.7% were diagnosed with schizophrenia or delusional disorders, while 26.3% had depressive disorders. Nearly half (43.4%) reported an insidious onset of illness, and 57.2% had lived with their condition for at least five years since diagnosis. In terms of illness course, 47.4% had experienced between two and four episodes, and 61.8% had never been hospitalized for their condition. Most patients (65.1%) attended the clinic monthly for follow-up visits. However, 46.1% reported medication non-adherence, with 57.1% missing their medications one to two times. Regarding current treatment, 27.6% were on oral atypical antipsychotics alone, while 14.5% and 27.6% were taking tricyclic antidepressants (TCAs) and selective serotonin reuptake inhibitors (SSRIs), respectively. Additionally, 14.5% reported a family history of mental illness, and 1.3% had a family history of suicide (Table 2).

Suicide assessment and related characteristics

The lifetime prevalence of suicidal ideation among respondents was 48.7%, and among those who experienced ideation (n = 74), 51.4% reported having such thoughts sometimes, while 58.1% experienced them in the context of psychotic symptoms. The lifetime prevalence of suicide attempts was 28.9% (n = 44), with poisoning using pesticides and medication overdose being the most common methods (29.5% each). Most attempts (81.8%) occurred at home, and following the attempt, 29.5% of respondents felt regret, 27.3% felt shame, and another 27.3% reported indifference. Among the 57 participants who had suicide plans but did not attempt, jumping (24.5%) and poisoning (22.9%) were the most common planned methods, while religious beliefs (38.6%) and concern for family (29.8%) were the leading reasons for not going through with it. Overall, the prevalence of suicidal behaviour (defined by an SBQ-R total score ≥ 8) was 30.3%, and 17.1% and 15.1% of respondents reported moderate and severe hopelessness, respectively (Table 3).

Factors associated with suicidal behaviour

Using the chi-square test of association, participants aged 35 years and below were significantly (39.2% vs. 20.5%; $X^2 = 6.282$ (1), $p = 0.014$) associated with suicidal behaviour compared to being aged 36 years and above. A diagnosis of depression was also significantly associated with suicidal behaviour compared to other psychiatric diagnoses ($X^2 = 16.233$ (4), $p = 0.003$). Furthermore, Medication non-adherence (41.4% vs. 20.7%; $X^2 = 7.665$ (1), $p = 0.006$), psychotic symptoms (65.1% vs. 16.5%; $X^2 = 34.513$ (1), $p < 0.001$), and hopelessness ($X^2 = 73.341$ (3), $p < 0.001$) were all significantly associated with suicidal behaviour (Table 4).

Table 2: Clinical characteristics of patients with mental illness attending the Psychiatry Outpatient department. Total number of participants (N= 152).

Variable	Category	Frequency (%)
Diagnoses based on ICD-10	Substance use disorders	1 (0.7)
	Schizophrenia and delusional disorders	65 (42.7)
	Depressive disorders	40 (26.3)
	Bipolar disorders	13 (8.6)
	Anxiety disorders	23 (15.1)
	Somatoform disorders	9 (5.9)
	Eating disorders	1 (0.7)
Mode of onset	Abrupt	25 (16.4)
	Acute	32 (21.1)
	Sub-acute	29 (19.1)
	Insidious	66 (43.4)
Duration of illness (since diagnosis)	One year	23 (15.1)
	2-4 years	42 (27.6)
	≥ 5 years	87 (57.2)
Number of episodes	One episode	61 (40.1)
	2-4 episodes	72 (47.4)
	≥ 5 episodes	19 (12.5)
Number of admissions	None	94 (61.8)
	One admission	31 (20.4)
	2-4 admissions	23 (15.2)
	≥ 5 admissions	4 (2.6)
Frequency of clinic visit	Weekly	5 (3.3)
	Biweekly	9 (5.9)
	Monthly	99 (65.1)
	Occasionally	31 (20.4)
	Irregular	8 (5.3)
Medication non-adherence	No	82 (53.9)
	Yes	70 (46.1)
	If yes (n= 70)	
	1-2 times	40 (57.1)
	3-4 times	14 (20.0)
	1-7 times	5 (7.2)
	8 –10 times	1 (1.4)
	>10 times	10 (14.3)
Type of current medication	Oral atypical antipsychotics alone	42 (27.6)
	Oral typical antipsychotics alone	4 (2.7)
	TCAs alone	22 (14.5)
	SSRIs alone	42 (27.6)
	Mood stabilizers	10 (6.6)
	Benzodiazepines	1(0.7)
	Oral antipsychotics and mood stabilizers	2 (1.3)
	Oral antipsychotics and antidepressants	8 (5.3)
	Depot antipsychotics alone	11 (7.2)
	Depot antipsychotics and oral antipsychotics	10 (6.6)
Psychoactive substance use	No	144 (94.7)
	Yes	8 (5.3) (alcohol= 4; Nicotine=1; cannabis= 3)
Family history of mental illness	No	103 (67.7)
	Unsure	27 (17.8)
	Yes	22 (14.5)
	If yes (n= 22)	
	Sibling	13 (59.1)
	Parents	7 (31.8)
	Other relatives	2 (9.1)

Family history of suicide	No Unsure Yes	123 (80.9) 27 (17.8) 2 (1.3) (sibling=1; Parent=1)

Independent determinants of suicidal behaviour

A multivariable analysis using binomial logistic regression was conducted to control for potential confounders and identify factors that independently predicted suicidal behaviour among patients attending the psychiatry outpatient clinic. The model demonstrated good explanatory power, with Cox & Snell R^2 = 0.481 and Nagelkerke R^2 = 0.681, indicating that 48.1%–68.1% of the variance in suicidal behaviour could be accounted for by the independent variables. The model correctly classified 78.3% of participants with suicidal behaviour and 90.6% of those without, yielding an overall classification accuracy of 86.6%.

After controlling for other variables, psychotic symptoms increased the odds of suicidal behaviour by nearly 12-fold compared to those without psychotic symptoms (OR = 11.906, 95% CI = 2.073–68.377, p = 0.005), while severe hopelessness increased the odds by more than 100-fold relative to minimal hopelessness (OR = 101.113, 95% CI = 12.014–851.001, p < 0.001) (Table 5).

Table 3: Showing details of suicidal ideation and attempts (N= 152).

Variable	Category	Frequency (%)
Lifetime suicidal ideation	No Yes	78 (51.3) 74 (48.7)
Frequency of suicidal ideation (n= 74)	Rarely Sometimes Frequently	22 (29.7) 38 (51.4) 14 (18.9)
Ideation in the presence of psychosis (Hallucinations, delusions) (n= 74)	No Yes	31 (41.9) 43 (58.1)
Lifetime suicide attempts	No Yes	108 (71.1) 44 (28.9)
Methods of suicidal attempts (n=44)	Overdose of medication Hanging Cutting Poisoning e.g. Pesticides Jumping Others (vehicle injury) Two options (overdose and vehicle injury)	13 (29.5) 5 (11.4) 9 (20.5) 13 (29.5) 2 (4.5) 1 (2.3) 1 (2.3)
Places of previous suicidal attempts (n= 44)	Home Public space (famous spaces) School/work	36 (81.8) 2 (4.6) 6 (13.6)
Feelings immediately after attempt (n= 44)	Regrets Relief Shame Indifference Others (Angry)	13 (29.5) 6 (13.6) 12 (27.3) 12 (27.3) 1 (2.3)
Methods planned without attempt (n=57)	Overdose of medication Hanging Cutting Poisoning e.g. Pesticides Jumping	8 (14.0) 10 (17.5) 12 (21.1) 13 (22.9) 14 (24.5)
Reasons for not going through with the plan (n= 57)	Fear of pain Religious beliefs Concern for family Lack of access to means Intervention by someone	7 (12.3) 22 (38.6) 17 (29.8) 6 (10.5) 5 (8.8)
Suicidal behaviour risk (SBQ-R)	No risk (<7) Suicide risk (≥8)	106 (69.7) 46 (30.3)
Beck's Hopelessness Scale	Minimal hopelessness (0-3) Mild hopelessness (4-8) Moderate hopelessness (9-14) Severe hopelessness (15-20)	69 (45.4) 33 (22.4) 26 (17.1) 23 (15.1)

SBQ-r, Suicidal Behaviour Questionnaire-revised

Discussion

Summary of Findings

There is a paucity of research on suicidal behaviour among psychiatric patients in Nigeria, despite an increasing number of suicide deaths being reported in clinical and community settings [19]. This study investigated the prevalence and associated factors of suicidal behaviour among adult psychiatric outpatients in a tertiary hospital in Lagos, Nigeria. The lifetime prevalence of suicidal ideation, suicide attempts, and overall suicidal behaviour were 48.7%, 28.9%, and 30.3%, respectively. Poisoning with pesticides and medication overdose were the most common methods used. Suicidal behaviour was significantly associated with younger age (≤35 years), a diagnosis of depression, medication non-adherence, psychotic symptoms, and hopelessness. Multivariate analysis revealed that psychotic symptoms increased the likelihood of suicidal behaviour by nearly twelvefold, while severe hopelessness raised the odds by more than one hundredfold compared with minimal hopelessness.

Prevalence of Suicidal Behaviour

The prevalence of suicidal behaviour found in this study was slightly lower than the 42.0% and 46.3% reported among psychiatric outpatients in other African studies [20,21]. This discrepancy may reflect contextual variations, as this study was conducted in an urban setting where better access to care and reporting mechanisms may reduce suicide risk compared to rural areas characterized by poverty and limited healthcare access [15]. Nevertheless, the prevalence rates in this study were considerably higher than the 3.2% and 0.7% reported in the general Nigerian adult population for suicidal ideation and for suicide attempts, respectively [22]. Similarly, our lifetime prevalence of suicide attempts is higher than the 1.0% and 7.5% observed among patients with congestive cardiac failure [23] and healthcare workers [24], respectively. These findings strengthen previous evidence that individuals with psychiatric disorders are at markedly higher risk for suicidal thoughts and attempts compared to the general population [10,11,25-27].

Pattern of Suicide Attempts

Most suicide attempts in this study occurred at home, aligning with previous findings [20,21,28]. This may be because individuals spend most of their time at home or perceive it as a private and

Table 4: The association of suicidal behaviour risk with socio-demographic and clinical variables using the Chi-square test.

Variable	Category	Suicidal behaviour RISK		X^2 (*df*), *p*-value
		No (n= 106) (%)	Yes (n= 46) (%)	
Age	≤ 35 years > 35 years	48 (60.8) 58 (79.5)	31 (39.2) 15 (20.5)	X^2 = 6.282 (1), **0.014**
Gender	Male female	37 (74.0) 69 (67.6)	13 (26.0) 33 (32.4)	X^2 = 0.642 (1), 0.423
Living condition	Alone With family With friends Group home homeless	8 (50.0) 96 (73.8) 1 (50.0) 0 (0.0) 1 (50.0)	8 (50.0) 34 (26.2) 1 (50.0) 2 (100.0) 1 (50.0)	X^2 = 9.340 (4), 0.053
Employment status	Unemployed Self employed Employed	31 (62.0) 42 (77.8) 33 (68.8)	19 (38.0) 12 (22.2) 15 (31.2)	X^2 = 3.095 (3), 0.213
Diagnoses	Schizophrenia and delusional disorders Depressive disorders Bipolar disorders Anxiety disorders Others (somatoform disorders seating disorders, substance use disorders)	49 (75.4) 19 (47.5) 13 (100.0) 17 (73.9) 8 (72.7)	16 (24.6) 21 (52.5) 0 (0.0) 6 (26.1) 3 (27.3)	X^2 = 16.233 (4), **0.003**
Medication non-adherence	No Yes	65 (79.3) 41 (58.6)	17 (20.7) 29 (41.4)	X^2 = 7.665 (1), **0.006**
Onset of illness	Abrupt Acute Sub-acute Insidious	22 (88.0) 22 (68.8) 21 (72.4) 41 (62.1)	3 (12.0) 10 (31.2) 8 (27.6) 25 (37.9)	X^2 = 5.878 (3), 0.118
Psychotic symptoms	No Yes	91 (83.5) 15 (34.9)	18 (16.5) 28 (65.1)	X^2 = 34.514 (1), **<0.001**
Hopelessness	Minimal hopelessness Mild hopelessness Moderate hopelessness Severe hopelessness	66 (95.7) 27 (79.4) 11 (42.3) 2 (8.7)	3 (4.3) 7 (20.6) 15 (57.7) 21 (91.3)	X^2 = 73.341 (3), **<0.001**

SBQ-r, Suicidal Behaviour Questionnaire-revised; X^2, Chi-square; df, degree of freedom. Test of significance set as p ≤ 0.05

Table 5: Binomial logistic regression of variables that can independently predict suicidal behaviour among adult patients attending the Psychiatry Outpatient department.

Variable	Category	Suicidal behaviour risk (SBQ-r ≥ 8)				
		B	SE	*p*	OR	95% CI
Age	≤ 35 years (ref: >35 years)	1.002	0.603	0.097	2.723	0.835 – 8.882
Diagnosis	Others Schizophrenia and delusional disorders Depressive disorders Bipolar disorders Anxiety disorders	Reference -1.714 -0.092 -19.54 0.332	1.333 1.206 10570.443 1.157	0.336 0.199 0.939 0.999 0.774	0.180 0.912 0.000 1.393	0.013 – 2.458 0.086 – 9.695 0.000 – 0.144 – 13.463
Medication non-adherence	Yes (ref: No)	0.805	0.578	0.163	2.237	0.721 – 6.943
Psychotic symptoms	Yes (ref: No)	2.477	0.892	**0.005**	11.906	2.073 – 68.377
Hopelessness	Minimal hopelessness Mild hopelessness Moderate hopelessness Severe hopelessness	Reference 1.098 2.030 4.616	0.817 0.838 1.087	**<0.001** 0.179 **0.015** **<0.001**	2.997 7.614 101.113	0.604 – 14.872 1.474 – 39.314 12.014 – 851.001
Summary statistics				*p*-value		
Cox & Snell R2		0.481				
Nagelkerke R2		0.681				
Omnibus test of model coefficients		99.698		<0.001		
Hosmer Lemeshow test		4.824		0.776		

SBQ-r, Suicidal behaviour Questionnaire-revised; CI, confidence interval; OR, odds ratio; SE, standard error; Test of significance set as p ≤ 0.05.

"safe" environment to act on suicidal thoughts. Poisoning using pesticides or medication overdose was the most common method, followed by self-inflicted cutting. These findings mirror trends in low- and middle-income countries [15] but differ from high-income settings, where hanging and firearms are more common methods [29]. This underscores the importance of restricting access to lethal means by regulating pesticide availability and ensuring safe storage and prescription practices for psychotropic medications.

Furthermore, most individuals who attempted suicide expressed feelings of regret or shame afterward. Religious beliefs and concern for family members were factors preventing individuals from acting on suicidal plans. This highlights the vital role of family engagement and faith-based support systems in suicide prevention.

Factors Associated with Suicidal Behaviour

Age

Younger participants (≤35 years) were significantly associated with suicidal behaviour compared to older individuals, consistent with findings from previous studies [27,30,31]. Factors that may increase the risk among young adults include substance or alcohol use, psychotic disorders, smoking, a history of sexual abuse, chronic medical conditions, and family or parental conflict [31].

Depression

Suicidal behaviour was more strongly associated with major depressive disorder (MDD) than with other psychiatric diagnoses such as schizophrenia, mania, or anxiety disorders. This aligns with findings from Ethiopia [21], South Africa [26], Taiwan [32], South Korea [33], and China [34], all of which showed that individuals experiencing depression are at higher risk for suicidal behaviour. Depression can distort cognitive appraisal and foster feelings of hopelessness, which may prevent individuals from recognizing recovery opportunities or accessing support.

Medication Non-Adherence

Non-adherence to psychotropic medication was significantly associated with suicidal behaviour, a finding consistent with previous studies [21,27,35]. This association may be explained by the fact that treatment adherence improves symptom control and overall quality of life, thereby reducing the likelihood of suicidal ideation and attempts in individuals with severe mental illness.

Psychotic Symptoms

Participants experiencing psychotic symptoms, irrespective of diagnosis, were about twelve times more likely to engage in suicidal behaviour. This finding corresponds with the results of a meta-analysis by Yates et al. [36]. The mechanisms linking psychotic symptoms and suicidality are complex [37]. One explanation suggests that the content of psychotic experiences, such as command hallucinations urging self-harm, may directly promote suicidal acts. However, the content of hallucinations often mirrors pre-existing cognitive and emotional distress [38], suggesting that such symptoms may amplify rather than independently cause suicidal ideation.

Hopelessness

A robust association was observed between hopelessness and suicidal behaviour. As hopelessness increased, so did the likelihood of suicidal behaviour. This finding supports prior research [39-42]. According to Beck's [43] hopelessness theory of suicide, a pessimistic view about the future may lead individuals to view suicide as their only escape from insurmountable problems. Hopelessness thus serves as a key cognitive vulnerability to suicide. Numerous studies have confirmed that individuals at greater suicide risk consistently report higher levels of hopelessness [44].

Strengths and Limitations

This study has several strengths. First, it utilized standardized and validated instruments to assess suicidal behaviour, improving reliability. Second, hopelessness, an important variable, was thoroughly evaluated. However, the study also has limitations. The face-to-face interviewer-administered method may have introduced social desirability bias, potentially leading respondents to under- or over-report sensitive experiences. Recall bias is also possible since participants self-reported lifetime behaviours and patterns of attempt. To mitigate these, interviewers assured respondents of confidentiality and encouraged candid participation. Additionally, the relatively small sample size, lack of random sampling, and cross-sectional design limit generalizability and causal inference.

Conclusion and Recommendations

The prevalence of suicidal behaviour among adult psychiatric outpatients in Lagos, Nigeria, is notably high. Most suicide attempts occurred at home, and family concerns and religious convictions were major protective factors. Suicidal behaviour was significantly associated with depressive disorders, medication non-adherence, psychotic symptoms, and hopelessness.

Routine screening for suicidal risk should be integrated into psychiatric evaluations, especially for patients with depression, psychotic symptoms, or poor medication adherence. Family members and caregivers should be educated to identify warning signs and provide supportive monitoring. Restricting access to common means of suicide, particularly pesticides and medications, should form part of community-level suicide prevention strategies. Finally, consistent psychosocial support and culturally sensitive interventions incorporating family and religious networks are essential to reducing suicide risk in Nigeria.

Declarations

Ethics approval and consent to participate

The study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. Approval for the research protocol was obtained from the Health Research Ethics Committee of the researchers' affiliated institution. Participation

was voluntary, the purpose and duration of the study were explained, and participants were informed that responses would remain anonymous and that they could withdraw from the study at any point.

References

1. https://apps.who.int/iris/handle/10665/326948
2. Cerel J, Brown MM, Maple M, Singleton M, van de Venne J, et al. How Many People Are Exposed to Suicide? Not Six. Suicide Life Threat Behav. 2019; 49: 529-534.
3. Zalsman G, Hawton K, Wasserman D, van Heeringen K, Arensman E, et al. Suicide prevention strategies revisited: 10-year systematic review. Lancet Psychiatry. 2016; 3: 646-659.
4. Jordans M, Rathod S, Fekadu A, Medhin G, Kigozi F, et al. Suicidal ideation and behaviour among community and health care seeking populations in five low- and middle-income countries: a cross-sectional study. Epidemiol Psychiatr Sci. 2018; 27: 393-402.
5. Gunnell D, Lewis G. Studying suicide from the life course perspective: implications for prevention. Br J Psychiatry. 2005; 187: 206-208.
6. Arsenault-Lapierre G, Kim C, Turecki G. Psychiatric diagnoses in 3275 suicides: a meta-analysis. BMC Psychiatry. 2004; 4: 37.
7. Cavanagh JT, Carson AJ, Sharpe M, Lawrie SM. Psychological autopsy studies of suicide: a systematic review. Psychol Med. 2003; 33: 395-405.
8. Cho SE, Na KS, Cho SJ, Im JS, Kang SG. Geographical and temporal variations in the prevalence of mental disorders in suicide: Systematic review and meta-analysis. J Affect Disord. 2016; 190: 704-713.
9. Hawton K, Saunders K, Topiwala A, Haw C. Psychiatric disorders in patients presenting to hospital following self-harm: a systematic review. J Affect Disord. 2013; 151: 821-830.
10. Wasserman D, Carli V, Iosue M, Javed A, Herrman H. Suicide prevention in psychiatric patients. Asia Pac Psychiatry. 2021; 13: e12450.
11. Too LS, Spittal MJ, Bugeja L, Reifels L, Butterworth P, et al. The association between mental disorders and suicide: A systematic review and meta-analysis of record linkage studies. J Affect Disord. 2019; 259: 302-313.
12. Mishara BL, Chagnon F. Why mental illness is a risk factor for suicide. In The International Handbook of Suicide Prevention. 2016; 594-608.
13. Colucci E, Lester D, editors. Suicide and Culture: Understanding the Context. Cambridge, MA. Hogrefe Publishing. 2012.
14. Knipe D, Williams AJ, Hannam-Swain S, Upton S, Brown K, et al. Psychiatric morbidity and suicidal behaviour in low- and middle-income countries: A systematic review and meta-analysis. PLoS Med. 2019; 16: e1002905.
15. Ongeri L, Theuri C, Nyawira M, Penninx BWJH, Tijdink JK, et al. Risk of suicidality in mental and neurological disorders in low and middle-income countries: A systematic review and meta-analysis. Compr Psychiatry. 2023; 123: 152382.
16. Bachmann S. Epidemiology of Suicide and the Psychiatric Perspective. Int J Environ Res Public Health. 2018; 15: 1425.
17. Osman A, Bagge CL, Gutierrez PM, Konick LC, Kopper BA, et al. The Suicidal Behaviors Questionnaire-Revised (SBQ-R): validation with clinical and nonclinical samples. Assessment. 2001; 8: 443-454.
18. Aloba O, Ojeleye O, Aloba T. The psychometric characteristics of the 4-item Suicidal Behaviors Questionnaire-Revised (SBQ-R) as a screening tool in a non-clinical sample of Nigerian university students. Asian J Psychiatr. 2017; 26: 46-51.
19. Hogan MF, Grumet JG. Suicide prevention: an emerging priority for health care. Health Aff. 2016; 35: 1084-1090.
20. Mekonnen D, Kebede Y. The prevalence of suicidal ideation and attempts among individuals attending an adult psychiatry out-patient clinic in Gondar, Ethiopia. Afr Health Sci. 2011; 11: 103-107.
21. Dereje J, Firdisa D, Tamire A, Tesi S, Dechasa M, et al. Suicidal Behaviors and Associated Factors Among Adult Psychiatric Patients Attending Psychiatric Clinic at Public Hospitals in Ethiopia: A Cross-Sectional Study. Inquiry. 2024; 61: 469580241282653.
22. Oladeji BD, Ayinde O, Adesola A, Gureje O. The Epidemiology of Suicide and Suicidal Behaviour across the Lifespan in Nigeria: A Systematic Review of the Literature. West Afr J Med. 2021; 38: 817-827.
23. Shofu-Akanji TO, Ola BA, Adegbaju DA, Ajibare AO, Adeoye AA, et al. Suicidal behaviour among patients with congestive cardiac failure in a Nigerian teaching hospital. S Afr J Psychiatr. 2024; 30: 2204.
24. Olibamoyo O, Coker O, Adewuya A, Ogunlesi O, Sodipo O. Frequency of suicide attempts and attitudes toward suicidal behaviour among doctors and nurses in Lagos, Nigeria. S Afr J Psychiatr. 2020; 26: 1402.
25. Atwoli L, Nock MK, Williams DR, Stein DJ. Association between parental psychopathology and suicidal behavior among adult offspring: results from the cross-sectional South African Stress and Health survey. BMC Psychiatry. 2014; 14: 65.
26. Khasakhala L, Sorsdahl KR, Harder VS, Williams DR, Stein DJ, et al. Lifetime mental disorders and suicidal behaviour in South Africa. Afr J Psychiatry (Johannesbg). 2011; 14: 134-139.

27. Shibre T, Hanlon C, Medhin G, Alem A, Kebede D, et al. Suicide and suicide attempts in people with severe mental disorders in Butajira, Ethiopia: 10-year follow-up of a population-based cohort. BMC Psychiatry. 2014; 14:150.

28. Choo CC, Harris KM, Chew PKH, Ho RC. Clinical assessment of suicide risk and suicide attempters' self-reported suicide intent: A cross sectional study. PLoS One. 2019; 14: e0217613.

29. Värnik A, Kõlves K, van der Feltz-Cornelis CM, Marusic A, Oskarsson H, et al. Suicide methods in Europe: a gender-specific analysis of countries participating in the "European Alliance Against Depression". J Epidemiol Community Health. 2008; 62:545-551.

30. Salelew E, Dube L, Aber M. Suicidal behaviours among people with Mental Illness at Jimma University Teaching Hospital Psychiatry Clinic, South West Ethiopia. Qual Prim Care. 2016; 24.

31. Wordefo DK, Kassim FM, Birhanu E, Mamo G. Suicidal behaviors and associated factors among patients attending an emergency department: a facility-based cross-sectional study. BMC Psychiatry. 2023; 23:462.

32. Chiou PN, Chen YS, Lee YC. Characteristics of adolescent suicide attempters admitted to an acute psychiatric ward in Taiwan. J Chin Med Assoc. 2006; 69:428-435.

33. Choi JW, Park S, Yi KK, Hong JP. Suicide mortality of suicide attempt patients discharged from emergency room, nonsuicidal psychiatric patients discharged from emergency room, admitted suicide attempt patients, and admitted nonsuicidal psychiatric patients. Suicide Life Threat Behav. 2012; 42:235-243.

34. Xin LM, Chen L, Su YA, Yang FD, Wang G, et al. Risk Factors for Recent Suicide Attempts in Major Depressive Disorder Patients in China: Results from a National Study. Front Psychiatry. 2018; 9:300.

35. Li H, Luo X, Ke X, Dai Q, Zheng W, et al. Major depressive disorder and suicide risk among adult outpatients at several general hospitals in a Chinese Han population. PLoS One. 2017; 12: e0186143.

36. Yates K, Lång U, Cederlöf M, Boland F, Taylor P, et al. Association of Psychotic Experiences with Subsequent Risk of Suicidal Ideation, Suicide Attempts, and Suicide Deaths: A Systematic Review and Meta-analysis of Longitudinal Population Studies. JAMA Psychiatry. 2019; 76:180-189.

37. Hielscher E, DeVylder JE, Saha S, Connell M, Scott JG. Why are psychotic experiences associated with self-injurious thoughts and behaviours? A systematic review and critical appraisal of potential confounding and mediating factors. Psychol Med. 2018; 48:1410-1426.

38. Ian Kelleher, Johanna T W Wigman, Michelle Harley, Erik O'Hanlon, Helen Coughlan, et al. Psychotic experiences in the population: association with functioning and mental distress. Schizophr Res. 2015; 165:9-14.

39. Beck AT, Brown G, Berchick RJ, Stewart BL, Steer RA. Relationship between hopelessness and ultimate suicide: a replication with psychiatric outpatients. Am J Psychiatry. 1990; 147:190-195.

40. Kuo WH, Gallo JJ, Eaton WW. Hopelessness, depression, substance disorder, and suicidality--a 13-year community-based study. Soc Psychiatry Psychiatr Epidemiol. 2004; 39:497-501.

41. David Klonsky E, Kotov R, Bakst S, Rabinowitz J, Bromet EJ. Hopelessness as a predictor of attempted suicide among first admission patients with psychosis: a 10-year cohort study. Suicide Life Threat Behav. 2012; 42:1-10.

42. Wang YY, Jiang NZ, Cheung EF, Sun HW, Chan RC. Role of depression severity and impulsivity in the relationship between hopelessness and suicidal ideation in patients with major depressive disorder. Journal of Affective Disorders. 2015; 183:83-89.

43. Beck AT. Depression: Clinical, experimental, and theoretical aspects. University of Pennsylvania Press. 1967.

44. Qiu T, Klonsky ED, Klein DN. Hopelessness Predicts Suicide Ideation but Not Attempts: A 10-Year Longitudinal Study. Suicide Life Threat Behav. 2017; 47:718-722.