Relationship between Life Events and Suicidal Behaviour among Adolescent Undergraduate Students in a Nigerian University

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Abstract

Background: Suicide is defined as a serious self-injurious act to kill them. The study investigates life events and suicidal behaviour among seven hundred and ten adolescent undergraduate students in the University of Medical Sciences, Ondo, Nigeria. **Subjects and Methods:** It is a cross-sectional descriptive study. Stratified random sampling method was used. The Adolescent Self-Rating Life Events Checklist and Suicidal Behaviour questionnaire were used to determine the life event and suicide behaviour, respectively. **Results:** The lifetime prevalence of suicidal thoughts, plan, and attempt among the respondents was 18.6%, 2.4%, and 4.8%, respectively, while 21.1% of respondents had a suicidal thought in the past year. In addition, 18.0% and 15.5% communicated suicide and would likely attempt suicide in future, respectively, while 10.6% have a higher risk of suicidal behaviour. Suicidal behaviour was higher among adolescents who were severely affected by transfer from other schools or previously suspended than respondents who were not severely affected by transfer or previous suspension from school (odds ratio [OR] = 3.022; confidence interval [CI] = [1.369–6.671]; *P* = 0.006). Respondents who were severely affected by family members with serious illness were had high risk of suicidal behaviour (OR = 2.478; CI = [1.122–5.438]; *P* = 0.004) than others. Furthermore, suicidal behaviour was higher among adolescents who severely affected by leaving home for a long time had high suicidal risk than others (OR = 3.022; CI = [1.369–6.671]; *P* = 0.006). **Conclusion:** School activities, family dynamics, and love relationships are the important predictors of high suicidal risk among adolescents in the Nigerian university.

Keywords: Adolescents, life events, Nigeria, suicidal behaviour, university

INTRODUCTION

Adolescence refers to the phase of transition between childhood and adulthood.^[1] Naturally, this is an era of sexual growth and the accomplishment of development.^[2] Psychologically, they transform from childhood dependency to being a functionally independent adult.^[3] Sigmund Freud viewed adolescence as a time when the summary of the childhood oedipal complex occurred, while Erickson viewed adolescence as a struggle between identity and role confusion that epitomised this phase of development.^[4]

Suicide is described as a lethal self-harmful act with some proof of being determined to kill them.^[5] Globally, about 800,000 persons commit suicide per year. The rate of suicide in 2015 was 10.7/100,000, meaning about one death in every 20 s.^[6] The World Health Organisation stated that 1.4% of all deaths were caused by suicide; this makes it the 15th foremost cause of

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DOI: 10.4103/NJM.NJM_19_23

death worldwide.^[7] These facts are perhaps an under reckoning of the actual figures. Suicide registration is a complex process, usually involving judicial establishments. Deaths caused by suicide may be misidentified as a mishap or due to a different cause.^[8] Suicidal behaviour is a composite occurrence; it is mostly believed that a link happens, from ideation to attempts to completion, also that, even if uncommon in childhood, the likelihood of suicide increases with each adolescent year.^[9]

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How to cite this article: Falade J, Akinnuoye AA, Sajo S, Oduyebo AO, Abedide CA, Falade OO. Relationship between life events and suicidal behaviour among adolescent undergraduate students in a Nigerian University. Niger J Med 2023;32:145-54.

 Submitted: 22-Feb-2023
 Revised: 22-Mar-2023

 Accepted: 14-Apr-2023
 Published: 14-Jul-2023

Suicide among youth and adolescents is a great public mental health challenge.^[10] Young adults, specifically adolescents are usually a vulnerable group for mental health challenges.^[9] Though suicide is fairly uncommon in children, its prevalence rises during adolescence.^[10] The average yearly global prevalence of self-reported suicide attempts remains 3 per a thousand adults. Near 2.5% of the general population makes a minimum of one suicide attempt during their lifetime and it is the second foremost factor leading to death among 15–29 years old globally.^[10]

Life event is a momentous experience which can give rise to an increase in stress and a disturbing adjustment in one's life,^[11] both positive and negative life event can be stressful.^[12] Even an enjoyable event, such as school admission can be a positive experience, but at the same time stressful. Many recent studies tend to show that life events play an important role in provoking, solving or maintaining psychic troubles.^[13] Major or critical life event refers to the type of event that may equated with turning points in the individual life span which result in one of three developmental outcomes: psychological growth, return to the precrisis level of functioning (as is stressed in homeostatic models), or psychological and/or physical dysfunctioning. Such an idea is generally recognised by crisis models of development, according to which transitions imply both danger and opportunity for growth.^[14]

There are numerous factors associated with suicide among adolescents and young adults, the literature produces a largely constant account of the risk factors which include childhood and family difficulty; psychopathology; individual and personal vulnerabilities; exposure to stressful life events and circumstances; and social, cultural and contextual factors.^[15] A more recent study identified depression and family relationship issues as risk factors.^[16] while another study reported that academic stress is a primary risk factor, which is highly connected with depression.^[17] A Nigerian study reported that alcoholism, depression, helplessness, self-doubt, hopelessness, self-worry, inefficacy, and female gender had a substantial association with the likelihood of suicide.^[18]

Every so often, suicide is not recognised or spotlighted, owing to its complexity and the taboo surrounding it. The rate of suicide among adolescents after the COVID-19 pandemic is on the increase,^[19-21] from the public mental health standpoint, suicide among adolescent undergraduates is one of the core matters to address through potent preventive methods. Consequently, it is imperative to increase in the knowledge of life events which contributes to suicidal behaviour among our adolescent undergraduates so that relevant stakeholders and parents will be aware to prevent the menace of suicidal behaviour among them.

Aims

General aim

The general aim is to assess life events and suicidality among adolescent undergraduates at the University of Medical Sciences, Ondo.

Specific aim

The study assessed the pattern of life events, frequency, and pattern of suicidal behaviour over the past 12 months and the relationship between the two variables among adolescent undergraduates at the University of Medical Sciences, Ondo.

SUBJECTS AND METHODS

Study location

The study was executed at the University of Medical Sciences, Ondo. The university was under the ownership of the Ondo State Government, founded in 2015. It is the third solely medical university in Africa and Nigeria's first solely medical university to be accredited by the National Universities Commission.^[22]

Study population

The study population was adolescent undergraduate students at the University of Medical Sciences, Ondo during the session. The total number of adolescent undergraduate students in the 2021/2022 session is 1362. The study was conducted between February and July 2022.

Study design

The study employed a descriptive cross-sectional design and was carried out with the use of a validated questionnaire.

Inclusion criteria

Undergraduates within the ages of 10 and 19 years and those who gave informed consent were included in this study.

Study instruments

Suicidal behaviour questionnaire-revised (SBQ-R)

The Suicidal Behaviours Questionnaire-Revised (SBQ-R) consists of four items.^[23,24] The first item asks about the lifetime suicide ideation and/or attempt while item 2 assesses the regularity of suicidal ideations over the past year. In addition, item 3 evaluates the risk of suicide attempts and the fourth item evaluates the self-reported likelihood of suicidal behaviour in the future.^[23] The total score on the SBQ-R

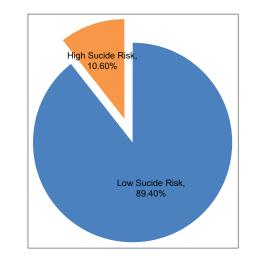


Figure 1: Suicidal risk among the respondents

ranges from 3 to 18, with higher marks signifying a greater risk for suicidal behaviours.^[19] The reliability, validity, and screening characteristics of SBQ-R have been described among Nigerian adolescents and young adults.^[24,25] A cutoff score of 8 indicates a high risk of suicide while a score <8 is suggestive of low suicide risk among Nigerian adolescents and younger adults.^[25]

Adolescent self-rating life events checklist

Liu *et al.* developed the Adolescent Self-Rating Life Events Checklist (ASLEC) in 1987, including 26 Items to measure the degree of the psychological impact of various life events among adolescents.^[26] The scale assessed six factors associated with life events: interpersonal relationships, being punished, study pressure, change for adaptation, bereavement, and others for example, relationship failure. Participants rated "how the item negatively affected you during the last 12 months" by using a 5 point in the last 12 months.

According to Liu *et al.*'s interpretation of ASLEC, the score of the subscale was grouped into five groups, namely do not affect, mild, moderate, severe, and extremely severe.^[27] The ASLEC had satisfactory two-week test-retest reliability (0.70), internal consistency (Cronbach's alpha = 0.85), and construct validity.^[26]

In this study, respondents who described the psychological reaction to the life event as none, mild and moderate were described as not severely affected by the life event while respondents that rated the stressor as severe or extremely severe were described as severely affected by the life event.

Pilot study

A pilot study was conducted among 50 adolescents in a Nigerian university to determine ambiguity in the questionnaire and the psychometric property of the ASLEC. The two-week test-retest reliability was 0.80 while the internal consistency (Cronbach's alpha) was 0.86.

Sample size

The sample size for this study was computed using the following formula:^[28]

$$N = \frac{Z^2 pq}{d^2}$$

Where

N = the minimum sample size if the population is <10, 000.

Z= the standard normal deviate usually set at 1.96 corresponding to a 95% confidence interval (CI).

P = the proportion in the target population estimated to have a particular characteristic which if the unknown is taken to be 50%.^[25]

q = 1 - p

d = degree of accuracy desired set at 0.05

The minimum study sample size from the prevalence was 384; but in order to reduce the type 11 error and increase the

power of the study, the sample size was doubled therefore 768 respondents were sampled.

Sampling method

A stratified random sampling method was used. The sample size was distributed proportionately among all the classes. In the 2021/2022 session, the university was divided into seven strata based on the number of faculties which were Faculty of Allied Health, Faculty of Medical Rehabilitation, Faculty of Basic Medical Sciences, Faculty of Nursing sciences, Faculty of Clinical Sciences, Faculty of Sciences, Faculty of Dental Sciences, and Faculty of Public Health; the faculties had the following numbers of adolescents 170, 151, 284, 269, 121, 215, 49, 99, respectively, and the sample size was proportionately allocated using the formula: number of adolescent in the faculty multiply by the sample size (768) divided by the total number of adolescent in the school (1362) as follows 96, 87, 160, 152, 68, 121, 28, and 56, respectively.

Each faculty was further sub divided by the number of departments and the each department is further subdivided by the number of classes/levels. The sample size is proportionately allocated to all the levels/classes in the each department.

The final respondents were selected from each level/class through simple random sample using balloting from those that gave informed consent.

Procedure

After retrieving the class lists of the undergraduates from the information and communications technology (ICT) department, the group representative of each level was consulted for maximum support. The students were addressed prior to the lecture hours or hospital's grand round for medical and dental students, who were in the clinical rotation to expatiate on the purpose of the study. An assertion of confidentiality was given and the benefits of the study were explained. Consent for participation was obtained with the informed consent form.

The final participants were selected from the adolescent (age <20 years) who meet the inclusion criteria and gave consent through balloting. The selected respondents were given the self-administered questionnaires and collected back by the researchers and research assistants. Each questionnaire was checked during the submission for adequate completion and undergraduate who do not properly fill out the questionnaire were persuaded to do so. The research assistances have been trained in the data collection.

Data analysis

The Statistical Package for the Social Sciences software (SPSS version 21 developed by IBM) was used for the data analysis. The socio-demographic details of respondents were reported using the descriptive statistics such as frequency and percentage. The Chi-square and multivariate statistical techniques such as binary logistic regression were used to recognise the factors that were significantly related with suicidal ideation. The CI was set at 95%. Statistical significance was considered at a P < 0.05.

RESULTS

Sociodemographic variables among the respondents

The response rate of the study was 92.4%, Seven hundred and sixty-eight questionnaires were distributed while seven hundred and ten questionnaires were duly filled and collected. The majority (70.1%), of the respondents were females, Christians (97.6%), single (94.2%), and from the Yoruba tribe (95.9%). The mean age of the respondent was 17.5 ± 1.4 years. The age ranged between 14 and 19 years [Table 1].

Suicidal behaviour among the respondents

The lifetime prevalence of suicidal thoughts among the respondents was 18.6% while 2.4% and 4.8% had a lifetime prevalence of suicidal plan and attempt, respectively [Table 2]. 10.6% (one-tenth) of the respondents had higher risk of suicidal behaviour [Figure 1].

Association of the adolescent life event and suicidal behaviour risk among the respondents

Table 3 reveals that a significant proportion of respondents was severely affected by leaving their family for a long time, respondents who severely complained of the heavy load of study, respondents who had severe study pressure from the family, those who had been severely affected by love failure, respondents who were severely affected by public humiliation had more risk of high suicidal behaviour than other respondents.

Besides, respondents who had severe internal family contradiction, who were severely affected by losing an election within the university, who were severely affected by family members with serious illness, who were severely affected by criticism or discipline, those that severely fought with people and lastly respondents who were severely affected by transfer or suspension from school had more high suicidal behaviour than other respondents.

Predictors of adolescent life events and high suicidal risk

The adjusted odd of suicidal behaviour was higher in the adolescent who was severely affected by transfer or suspension from school, respondents who were severely affected by a love failure respondents who were severely affected by a lost election within the university. In addition, the odd of high suicidal risk was higher in the adolescents who were severely disturbed by internal contradiction in the family and respondents who were severely affected by leaving home for a long time [Table 4].

DISCUSSION

The study examined the prevalence, pattern, and predictive adolescent life events of high suicidal behaviour among adolescent undergraduates in a Nigerian university.

In the study, 18.6% and 2.4% had a lifetime prevalence of suicidal ideation and planned suicide, respectively; in addition, 4.8% had attempted suicide in the previous year. The suicidal ideation and planned suicide were higher than

Table 1: Sociodemographic variable of the respondents			
Variable	Frequency (<i>n</i> =710), <i>n</i> (%)		
Gender			
Male	212 (29.9)		
Female	498 (70.1)		
Religion			
Christianity	693 (97.6)		
Islam	17 (2.4)		
Marital status			
Single	669 (94.2)		
Married	18 (2.5)		
Divorced	23 (3.3)		
Tribe			
Yoruba	681 (95.9)		
Igbo	23 (3.2)		
Hausa	6 (0.8)		
Academic performance			
Average	681 (40.1)		
Above average	239 (59.9)		
Source of finance			
Parent	687 (96.8)		
Family members	17 (2.4)		
Self	6 (0.8)		
Satisfaction with monthly income			
Not severe	388 (54.6)		
Severe	322 (45.4)		
Age (years), mean (range)	17.5±1.4 (14–19)		

Table 1: Sociodemographic variable of the respondents

Table 2: Suicidal behaviour among the respondents

	Frequency (<i>n</i> =710), <i>n</i> (%)
Have you ever thought to kill yourself	
Never	527 (72.2)
Suicidal thought	132 (18.6)
Suicidal plan	17 (2.4)
Suicidal attempt	34 (4.8)
How often have you thought of killing yourself in the past year	
Never	560 (78.9)
Present	150 (21.1)
Have you ever told someone that you were going to commit suicide or that you might do it	
Absent	582 (82.0)
Present	128 (18.0)
How likely is it that you will attempt suicide someday	
Absent	600 (84.5)
Present	110 (15.5)

9.0% and 3.0%, respectively, reported among secondary school adolescent in Nigeria, the psychological stress in the university environment and the possibility of living alone compared to secondary school student may be responsible for the difference.^[24] Similarly the lifetime prevalence of suicide ideation in this study is higher than 12.1% reported among American adolescent undergraduates and adolescent who

Variable	Low, <i>n</i> (%)	High, <i>n</i> (%)	χ^2	Df	Р
Leaving family for a long time					
Not severe	365 (91.5)	34 (8.5)	4.021	1	0.045
Severe	270 (86.8)	41 (13.2)			
Marked changes in daily routine					
Not severe	239 (91.2	23 (8.8)	1.400	1	0.237
Severe	396 (88.4)	52 (11.6)		-	
A heavy load of study	550 (0011)	02 (1110)			
Not severe	113 (100.0)	0	1.400	1	< 0.0001
Severe	522 (87.5)	75 (12.6)		-	
Misunderstanding with others		,0 (1210)			
Not severe	372 (91.4)	35 (8.6)	3.893	1	0.048
Severe	263 (86.8)	40 (13.2)	5.075	1	0.010
Failure of exam	200 (00.0)	10 (15.2)			
Not severe	482 (90.4)	51 (9.6)	3.893	1	0.134
Severe	153 (86.4)	24 (13.6)	5.075	1	0.151
In conflict with others	155 (60.4)	24 (15.0)			
Not severe	488 (90.5)	51 (9.5)	2.874	1	0.090
Severe	147 (86.0)	24 (14.0)	2.074	1	0.070
Love failure	147 (80.0)	24 (14.0)			
Not severe	497 (91.5)	46 (8.5)	10.693	1	0.001
Severe	138 (82.6)	29 (17.4)	10.095	1	0.001
	136 (82.0)	29 (17.4)			
Be discriminated against or estranged	507 (00 7)	52 (0, 2)	4 424	1	0.025
Not severe Severe	507 (90.7)	52 (9.3) 22 (15 2)	4.424	1	0.035
	128 (84.8)	23 (15.2)			
Tired of learning	422 (00.2)	4((0, 0)	0.704	1	0.276
Not severe	422 (90.2)	46 (9.8)	0.784	1	0.376
Severe	213 (88.0)	29 (12.0)			
Family finance difficulty	427 (00.0)	52 (10.0)	0.704		0.742
Not severe	437 (89.2)	53 (10.8)	0.784	1	0.743
Severe	198 (90.0)	22 (10.0)			
Public humiliation	5(5(01()	50 (0, 4)	22 720		0.001
Not severe	565 (91.6)	52 (8.4)	22.738	1	0.001
Severe	70 (75.3)	23 (24.7)			
Pressure to enter school		(1 - 0			
Not severe	486 (89.4)	57 (10.6)	0.15	1	0.901
Severe	148 (89.7)	17 (10.3)			
The internal contradiction in the family					
Not severe	528 (90.4)	53 (9.1)	7.030	1	0.008
Severe	107 (82.9)	22 (17.1)			
A lost election					
Not severe	109 (94.8)	6 (5.2)	4.151	1	0.042
Severe	526 (88.4)	69 (11.6)			
Study pressure from family					
Not severe	422 (92.5)	34 (7.5)	13.026	1	< 0.001
Severe	213 (83.9)	41 (16.1)			
Strained relationship with the teacher					
Not severe	499 (88.8)	63 (11.2)	1.193	1	0.275
Severe	136 (91.9)	12 (8.1)			
Be stolen or lost things					
Not severe	357 (89.7)	41 (10.3)	0.66	1	0.798
Severe	278 (89.1)	34 (10.9)			
Family member's serious illness					
Not sever	492 (91.3)	47 (8.7)	8.051	1	0.005
Severe	143 (83.6)	28 (16.4)			

Contd...

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Table 3: Contd			-		
Variable	Low, <i>n</i> (%)	High, <i>n</i> (%)	χ^2	Df	Р
Be criticized or disciplined					
Not severe	338 (92.1)	29 (7.9)	5.696	1	0.017
Severe	297 (86.6)	46 (13.4)			
Accidents					
Not severe	486 (89.5)	57 (10.5)	0.011	1	0.918
Severe	149 (89.2)	18 (10.8)			
Family member death					
Not severe	407 (90.0)	45 (10.0)	0.486	1	0.486
Severe	228 (88.4)	30 (11.6)			
Suffering from acute illness					
Not severe	549 (90.36)	59 (9.7)	3,309	1	0.690
Severe	86 (84.3)	16 (15.7)			
Fight with people					
Not severe	553 (91.6)	51 (8.4)	19.240	1	< 0.00
Severe	82 (77.4)	24 (22.6)			
Be fined					
Not severe	561 (89.9)	63 (10.1)	1.190	1	0.275
Severe	74 (86.0)	12 (14.0)			
Be scolded by parents					
Not severe	226 (90.4)	24 (9.6)	0.379	1	0.538
Severe	409 (88.9)	51 (11.1)			
To transfer or suspend school					
Not severe	561 (90.6)	58 (9.4)	7.281	1	0.007
Severe	74 (81.4)	17 (18.7)			

were not in the university, the difference may also be due to the uniqueness of the university environment.^[29] The present findings was also greater than 3.1% and 11.5% for suicidal attempt and ideation respectively in a household survey in Mexico^[30] and a prevalence of 17.6% for suicidal ideation among adolescents aged between 16 and 18 in Santigo.^[31] The observed difference may suggest that university environment is more tasking than home environment.

In the past year, 21.1% of the respondents had suicidal ideation which was higher than 12.0% reported in a similar Nigerian study.^[24] 18.0% among adolescents in the United States of America,^[32] and 19.1% among adolescents in South Korea.^[33] A study reported that deaths secondary to suicide has increased in a number of developing and developed nations, among young people and adults over the last 45 years.^[31] The global sociopolitical and economic instability may be responsible for the trend. In this study, 18.0% have communicated suicide in the past year. Although there is a paucity of research on the communication of suicide among adolescents in sub-Saharan Africa in Western countries, 48%-84% of people who completed suicide frequently discussed their suicidal intents with more than a single person.^[34] People frequently fail to identify suicidal communication, because they lack the knowledge; also their uncertain attitudes and behaviour to self-injurious persons come to the forefront when they are met with suicidal communication. Suicidal communication can be direct/verbal or indirect/nonverbal communication. Direct suicidal communication refers to plainly detailed suicidal intentions, whereas indirect nonverbal suicidal communication signifies withdrawal, deliberate self-isolation, fatigue or losing connection with family and friends, and/or taking concrete steps to put individual affairs in order before completing suicide.^[34] The communication of suicidal intent should not be taken with levity among adolescents because of the relationship with suicidal act. Necessary psychological care and detailed monitoring by relevant stakeholders should be given to any adolescent that directly or indirectly communicate suicidal intent.

Ten percent of the respondents had a high risk of suicide behaviour akin to 10.2% described by Tolulope *et al.* in a Nigerian study.^[24] This finding is greater than the 3.2% stated in a study that the Suicidality Module of the MINI International Neuropsychiatry Inventory among Nigerian undergraduates was used.^[25] The variance may result from the methodology used and the higher age group of the respondents. Suicidal behaviour is a significant cause of death among adolescents and young adults.^[35,36]

Education and learning environment are imperative to improving many aspects of the evolution of adolescents to adulthood and quality of life. In the past year, respondents who transferred from other schools and those that were previously suspended had high Suicidal Behaviour. Self-identity is majorly developed in the school,^[36] teachers and staff members assist adolescents to discover the identity implications of the new concepts in the process of

Variable	I risk among the responde AOR	Р	C	1
Variable	AUK	٢	Low	ı High
To transfer or suspend school			LUW	nıyıı
Not severe	1			
Severe	3.022	0.006	1.369	6.671
Misunderstanding with others	5.022	0.000	1.507	0.071
Not severe	1			
Severe	0.557	0.116	0.269	1.156
A heavy load of study	0.557	0.110	0.209	1.150
Not severe	1			
Severe	35779202.9	0.996	0.00	
Love failure	55119202.9	0.990	0.00	
Not severe	1			
Severe	5.114	< 0.001	2.416	10.823
To demonstrate against or estrange	5.114	< 0.001	2.410	10.025
Not severe	1			
Severe	0.602	0.151	0.301	1.204
Public humiliation	0.002	0.151	0.501	1.204
Not severe	1			
Severe	1.604	0.266	0.698	3.687
Internal contradiction in the family	1.004	0.200	0.098	5.087
Not severe	1			
Severe	2.478	0.025	1.122	5.438
A lost election	2.778	0.025	1.122	5.750
Not sever	1			
Severe	20.484	< 0.001	5.990	70.050
Fight with people	20.464	<0.001	5.990	70.050
Not severe	1			
Severe	2.141	0.054	0.988	4.640
Be criticizer or disciplined	2.141	0.054	0.988	4.040
Not severe	1			
Severe	0.659	0.219	0.339	1.281
Study pressure from friendly	0.039	0.219	0.559	1.201
Not severe	1			
Severe	1.633	0.130	0.866	3.082
Family member serious illness	1.033	0.130	0.000	5.082
Not severe	1			
Not severe Severe	2.733	0.004	1.390	5.377
	2.733	0.004	1.390	5.577
Leaving family for a long time	1			
Not severe Severe	1 3.022	0.006	1.369	6.671

The P-value of the Hosmer–Lemeshow test for the goodness to fit is 0.055. CI: Confidence interval, AOR: Adjusted odds ratio

identity development that may result from transfer to a new school or transition from secondary school to a university environment could be overwhelming and responsible for high suicidal behaviour among the respondents. In support this phenomenon, a study reported that youth who transferred from one school to another has a higher risk to exhibit a wide range of adverse behavioural and educational consequences, comprising school dropout.^[37]

Old-fashioned methods to school discipline such as suspension and expulsion from school are quite sensitive and have an extensive history of rebuff and discrimination,^[36] the evidence that school suspensions or expulsions give a better student discipline is rare. Additionally, an earlier study has proven that the increase in the rates of suspension are related to low academic success.^[38,40] Suspended students are disconnected from the school environment and successfully deprived of the capability to receive instruction. This may increase the rate of suicidal behaviour among the respondents.^[40,42]

Love/relationship failure is an important predictive life event of high suicidal behaviour among the respondents similar to other earlier studies.^[41,42] Respondents with failed love relationships may be overwhelmed and developed suicidal behaviour. Love relationship failure may be a measure of the mental health status of an adolescent. It is now proven that adolescent romance is an important developmental marker for adolescents' view of self-worth and the ability for affection.^[43,44] Early love affairs may give rise to mood disorders and suicide among adolescents and partner aggression which happens within considerable percentages of adolescent love affairs and escalates the risk of depression and suicidal ideation in youths.^[44,45]

The election is an important societal process with a degree of assurance, campaigns, consultations, and the confidence of winning. The process is psychologically stressful. Election loss may be a risk factor for psychological illness and suicide if not well managed as reported in this study.^[46-48] The adolescents' role in the election process varies from candidates and voters to supporters of a candidate or party. Adolescent participation in democratic societies and political engagement may be especially important, as it indicates the important parts of identity formation, making young people to reflect on the values, ideologies, and traditions of their communities.^[49] Elections results may cause positive or adverse feelings for young voters, reliant on how they relate to or align with the elected candidate and the degree to which they feel personally affected by a possible change in policy.^[50] Among young adults in America, those who had negative perceptions of an election had increased signs of stress before the election and diurnal cortisol variation means that there was a rise in biological stress among them.^[50]

Illness among family members was significant because of the psychological pressure it may cause in addition to the possible economic instability. The adolescents may be predisposed to overwhelming emotional and financial insecurity leading to suicide. In addition, family is the most important foundation of social support and disruption of which may lead to increase suicidal behaviour. A Nigerian study reported that positive family support is inversely proportional to suicidal ideation.^[51]

Stable family dynamics are an important predictor of optimal mental health among adolescents.^[51] Respondents who were severely disturbed by internal contradictions in the family and leaving home for long were more at risk of high suicidal behaviour. The family's internal inconsistency is a combination of declarations, philosophies, or structural differences between the members of the family.^[52,53] It may be stressful and responsible for suicide behaviours among the respondents. Parent-child clash increases as children transform into being adolescents. Although this trend is not inevitable, it can be agonising for parents and their adolescents. Both can be confused about what happened to the old days of family agreement. Parents may be seen as having turned controlling, harsh, and irrational by the adolescent. Parents may wonder why their previously cooperative and well-behaved children now seem aggressive and destructive. These viewpoints occur simultaneously leading to internal contradiction on both sides. Many parents and adolescents report a decrease in closeness during this time. Respondents who have healthy

family relationships may also be distressed when they leave home for a very long time. They might have lost the welcoming association, counsel, and support from the family members, and this distress may be accountable for the suicidal behaviours, especially for those who have not adapted well to the school environment. Adolescents moving out of their parental homes to school are normal and a natural phenomenon but the emotionality and reactivity may be due to intense emotional connection to family.

CONCLUSION

Adolescence is the transitional period to adulthood and suicide among them constitutes a major public mental health problem. Suicidal behaviour was higher in the adolescents who were severely affected by the following transfer from other schools or previously suspended from school, respondents who had love or relationship failure, those who have previously lost elections in school, respondents who had family members with serious illness, those who had internal contradiction in the family and respondent who had left home for a long time.

Youth suicidal behaviour has continued to be a significant national problem in the need of urgent attention by the Nigeria government. All the relevant stakeholders must work collectively to reduce the risk of suicidal behaviour by mitigating adolescent life events.

Strength

The study examined the prevalence and predictors of high suicidal risk among university adolescents using the ASLEC Suicide Behavioural Scale in South-west Nigeria which has not been used to the best of our knowledge.

Limitation

The questionnaire method assumes that the respondent will provide truthful answers to each question. However, this supposition may not hold in all cases. Besides, the fear of identification and stigmatisation might have influenced the responses to the items on the questionnaire. Other confounders were not assessed and controlled such as drug abuse, excessive alcohol consumptions, smoking behaviours, poor academic performance/academic failure, and domestic violence.

Availability of data and materials

The data are presently unobtainable in the public domain because the author does not have the go-ahead to share the data yet. Hence, the data would only be made available upon request.

Acknowledgments

We acknowledge the participants, the research assistants, and the university authorities for the privilege to carry out the study.

Financial support and sponsorship Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

- Sawyer SM, Azzopardi PS, Wickremarathne D, Patton GC. The age of adolescence. Lancet Child Adolesc Health 2018;2:223-8.
- Alsaker FD, Flammer A. Pubertal maturation. In: Handbook of Adolescent Development. England, United Kingdom: Psychology Press; 2020. p. 30-50.
- Magalhães E, Calheiros MM. Why place matters in residential care: The mediating role of place attachment in the relation between adolescents' rights and psychological well-being. Child Indic Res 2020;13:1717-37.
- Mandavilli SR. Generic identity theory. Elk Asia Pac J Soc Sci 2019;5:1-88.
- 5. Turecki G, Brent DA. Suicide and suicidal behaviour. Lancet 2016;387:1227-39.
- Olaosebikan AY. Why do youths commit suicide? Education 2019;2020:1-16.
- World Health Organisation. Preventing Suicide: A Global Imperative. Geneva, Switzerland: World Health Organisation: 2014.
- Rockett IR, Caine ED, Connery HS, D'Onofrio G, Gunnell DJ, Miller TR, *et al.* Discerning suicide in drug intoxication deaths: Paucity and primacy of suicide notes and psychiatric history. PLoS One 2018;13:e0190200.
- 9. Sarkisian K. Cognitive Tendencies, Problem-Solving Behaviour, and Family Emotional Functioning as Predictors of Adolescent Suicidal Ideation. USA: The University of Wisconsin-Madison; 2022.
- 10. Bilsen J. Suicide and youth: Risk factors. Front Psychiatry 2018;9:540.
- Jean-Baptiste CO, Herring RP, Beeson WL, Dos Santos H, Banta JE. Stressful life events and social capital during the early phase of COVID-19 in the U.S. Soc Sci Humanit Open 2020;2:100057.
- Bhagat RS, Allie SM, Ford DL. Coping with stressful life events: An empirical analysis. In: Occupational Stress. Florida: CRC Press; 2020. p. 93-112.
- Pomerleau JM, Pargament KI, Krause N, Ironson G, Hill P. Religious and spiritual struggles as a mediator of the link between stressful life events and psychological adjustment in a nationwide sample. Psychol Relig Spiritual 2020;12:451.
- 14. McCubbin HI, Figley CR. Stress and the Family: Coping with Normative Transitions. Oxfordshire: Routledge; 2014.
- Beautrais AL. Risk factors for suicide and attempted suicide among young people. Aust N Z J Psychiatry 2000;34:420-36.
- Siu AM. Self-Harm and suicide among children and adolescents in Hong Kong: A review of prevalence, risk factors, and prevention strategies. J Adolesc Health 2019;64:S59-64.
- Kwak CW, Ickovics JR. Adolescent suicide in South Korea: Risk factors and proposed multi-dimensional solution. Asian J Psychiatr 2019;43:150-3.
- Lawrence K. Prevalence of suicidal tendencies and associated risk factors among Nigerian University Students: A quantitative survey. Open Psychol J 2022;15.
- Manzar MD, Albougami A, Usman N, Mamun MA. Suicide among adolescents and youths during the COVID-19 pandemic lockdowns: A press media reports-based exploratory study. J Child Adolesc Psychiatr Nurs 2021;34:139-46.
- Gracia R, Pamias M, Mortier P, Alonso J, Pérez V, Palao D. Is the COVID-19 pandemic a risk factor for suicide attempts in adolescent girls? J Affect Disord 2021;292:139-41.
- Goto R, Okubo Y, Skokauskas N. Reasons and trends in youth's suicide rates during the COVID-19 pandemic. Lancet Reg Health West Pac 2022;27:100567.
- Obi IC, Okore NE, Kanu CL. Influence of social media on library service delivery to students in University of Medical Sciences, Ondo City, Nigeria. Res J Lib Inf Sci 2019;3:20-6.
- Osman A, Bagge CL, Gutierrez PM, Konick LC, Kopper BA, Barrios FX. The Suicidal Behaviours Questionnaire-Revised (SBQ-R): Validation with clinical and nonclinical samples. Assessment 2001;8:443-54.
- Tolulope O, Olutayo A, Babatunde S, Adesanmi A. Suicidality in a non-clinical sample of Nigerian adolescents: Prevalence and correlates. Suicidol Online 2019;10:1-8.
- Aloba O, Ojeleye O, Aloba T. The psychometric characteristics of the 4-item Suicidal Behaviours Questionnaire-Revised (SBQ-R) as a

screening tool in a non-clinical sample of Nigerian university students. Asian J Psychiatr 2017;26:46-51.

- Liu X, Yang J, Liu L, Sun L. Life events, ways of coping and depression among adolescents. Chin J Clin Psychol 1997;5:166-9.
- 27. Tang J, Yang W, Ahmed NI, Ma Y, Liu HY, Wang JJ, et al. Stressful life events as a predictor for nonsuicidal self-injury in Southern Chinese adolescence: A cross-sectional study. Medicine (Baltimore) 2016;95:e2637.
- Bonett DG. Sample size requirements for testing and estimating coefficient alpha. J Educ Behav Stat 2002;27:335-40.
- Nock MK, Green JG, Hwang I, McLaughlin KA, Sampson NA, Zaslavsky AM, *et al.* Prevalence, correlates, and treatment of lifetime suicidal behaviour among adolescents: Results from the National Comorbidity Survey Replication Adolescent Supplement. JAMA Psychiatry 2013;70:300-10.
- Borges G, Benjet C, Medina-Mora ME, Orozco R, Nock M. Suicide ideation, plan, and attempt in the Mexican adolescent mental health survey. J Am Acad Child Adolesc Psychiatry 2008;47:41-52.
- Yoon Y, Cederbaum JA, Schwartz A. Childhood sexual abuse and current suicidal ideation among adolescents: Problem-focused and emotion-focused coping skills. J Adolesc 2018;67:120-8.
- 32. Baiden P, Tadeo SK. Investigating the association between bullying victimisation and suicidal ideation among adolescents: Evidence from the 2017 Youth Risk Behaviour Survey. Child Abuse Negl 2020;102:104417.
- 33. Kang EH, Hyun MK, Choi SM, Kim JM, Kim GM, Woo JM. Twelve-month prevalence and predictors of self-reported suicidal ideation and suicide attempt among Korean adolescents in a web-based nationwide survey. Aust N Z J Psychiatry 2015;49:47-53.
- Wasserman D. A Stress-Vulnerability Model and the Development of the Suicidal Process Suicide – An Unnecessary Death. 2001. p. 13-27.
- Adewuya AO, Oladipo EO. Prevalence and associated factors for suicidal behaviours (ideation, planning, and attempt) among high school adolescents in Lagos, Nigeria. Eur Child Adolesc Psychiatry 2020;29:1503-12.
- Verhoeven M, Poorthuis AM, Volman M. The role of school in adolescents' identity development. A literature review. Educ Psychol Rev 2019;31:35-63.
- Gasper J, DeLuca S, Estacion A. Switching schools: Reconsidering the relationship between school mobility and high school dropout. Am Educ Res J 2012;49:487-519.
- González T, Sattler H, Buth AJ. New directions in whole-school restorative justice implementation. Confl Resolut Q 2019;36:207-20.
- An ZG, Horn E. Through the lens of early educators: Understanding the use of expulsion and suspension in childcare programs. Early Child Res Q 2022;60:379-89.
- Welsh RO, Little S. The school discipline dilemma: A comprehensive review of disparities and alternative approaches. Rev Educ Res 2018;88:752-94.
- Price M, Hides L, Cockshaw W, Staneva AA, Stoyanov SR. Young love: Romantic concerns and associated mental health issues among adolescent help-seekers. Behav Sci (Basel) 2016;6:9.
- Pfeifer JH, Allen NB. Puberty initiates cascading relationships between neurodevelopmental, social, and internalising processes across adolescence. Biol Psychiatry 2021;89:99-108.
- Collins WA, Welsh DP, Furman W. Adolescent romantic relationships. Annu Rev Psychol 2009;60:631-52.
- 44. Whitton SW, Dyar C, Newcomb ME, Mustanski B. Romantic involvement: A protective factor for psychological health in racially-diverse young sexual minorities. J Abnorm Psychol 2018;127:265-75.
- Brown C, Hegarty K. Digital dating abuse measures: A critical review. Aggress Violent Behav 2018;40:44-59.
- Classen TJ, Dunn RA. The politics of hope and despair: The effect of presidential election outcomes on suicide rates. Soc Sci Q 2010;91:593-612.
- 47. Voracek M, Formann AK, Fülöp G, Sonneck G. Suicide and general elections in Austria: Do preceding regional suicide rate differentials foreshadow subsequent voting behaviour swings? J Affect Disord 2003;74:257-66.

- 48. Krueger EA, Westmoreland DA, Choi SK, Harper GW, Lightfoot M, Hammack PL, et al. Mental health among black and latinx sexual minority adults leading up to and following the 2016 U.S. Presidential election: Results from a natural experiment. LGBT Health 2021;8:454-62.
- Patterson MM, Bigler RS, Pahlke E, Brown CS, Hayes AR, Ramirez MC, et al. Toward a developmental science of politics. Monogr Soc Res Child Dev 2019;84:7-185.
- Hoyt LT, Zeiders KH, Chaku N, Toomey RB, Nair RL. Young adults' psychological and physiological reactions to the 2016 U.S. Presidential election. Psychoneuroendocrinology 2018;92:162-9.
- Olatunji OA, Idemudia ES, Olawa BD. Family support, self-efficacy and suicidal ideation at emerging adulthood: A mediation analysis. Int J Adolesc Youth 2020;25:920-31.
- Erdogan I, Rondi E, De Massis A. Managing the tradition and innovation paradox in family firms: A family imprinting perspective. Entrep Theory Pract 2020;44:20-54.
- Bi X, Yang Y, Li H, Wang M, Zhang W, Deater-Deckard K. Parenting styles and parent-adolescent relationships: The mediating roles of behavioural autonomy and parental authority. Front Psychol 2018;9:2187.