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RESEARCH ARTICLE

Prevalence of Suicidal Tendencies and Associated Risk Factors among Nigerian University Students: A Quantitative Survey

Kehinde Lawrence[1,*]

[1]*Educational Psychology and Special Education, University of Zululand, KwaDlangeZwa, South Africa*

Abstract:

Objective:

Using a quantitative survey research approach, this study aims to investigate some risk factors associated with suicidal tendencies among undergraduate students in Nigeria. There is concern by society about the recent reported increased rate of suicide among undergraduate students in Nigeria

Methods:

A multistage sampling method was used to select 2 100 undergraduate students in South West Nigeria. A questionnaire consisting of indices of suicidal tendencies was used to collect data and logistic regression was employed as a statistical tool.

Results and Discussion:

Findings suggest that 151 (7.5%) of the respondents with risk factors such as alcoholism (OR = 1.02, {1.01–1.04}) and helplessness (OR = 1.04, {1.01–1.06}) reported strong and significant association ($p < 0.05$) with suicidal tendencies. Depression (OR = .985, {.960–1.01}), hopelessness (OR = .999, {.971–1.01}), self-worry (OR = 1.00, {.988–1.02}), self-doubt (OR = 1.00, {.983–1.03}), inefficacy (OR = .991, {.966–1.02}), age (OR = 1.00, {.043–2.325}), and gender (OR = 1.04, {.724–1.50}) showed weak and insignificant association with suicidal tendencies ($p > 0.05$). This study concludes that there is a slight prevalence of suicidal tendencies among undergraduate students, and that there is a need to introduce suicidal prevention education into the university curriculum as a way of containing the prevalence of suicide among adolescents and youths.

Conclusion:

For individuals identified with suicidal tendencies, studies should focus on the development of psychosocial interventions that can be used, such as counselling by psychologists and public health and social health workers. In the interim, urgent regular suicide awareness and prevention programs are suggested.

Keywords: Suicidal tendencies, Risk factors, Students, Health workers, Adolescents, Psychosocial interventions.

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1. BACKGROUND

Recently, the rate at which undergraduate students in Nigeria are intentionally terminating their own lives is on the increase and this creates a concern for society. Although, suicidal behavior cuts across all ages, cultures, countries, races, religions, and colours, as it is being reported as the second leading cause of death among youths aged between 15 and 29 years worldwide [1]. This preventable act remains a major health, psychological, social, and cultural concern globally and claims hundreds of thousands of lives. More worrisome is the fact that young adults are the major victims; they are either preparing themselves or already productive, with high expectations on them to contribute meaningfully to the social and economic developments of their various nations. Owing to the fact that the majority of these young people may still be depending on either parents, relatives or significant others for survival, one might be worried about what could have been the possible causes of suicide among these youngsters. In Nigeria, particularly, it was reported that in 2018, 66 cases were reported and out of 42 recorded cases between January and June 2019, 11 were undergraduate students [2]. Suicide cases among these students might not be unconnected to a high rate of economic hardship and insecurity in the country resulting

* Address correspondence to this author at the Educational Psychology and Special Education, University of Zululand, KwaDlangeZwa, South Africa; E-mail: lawrencek@unizulu.ac.za

from job losses by their sponsors, daily increase in unemployment, and insurgency activities [3].

More distressing is the fact that every 40 seconds, someone somewhere around the world takes his/her own life [4]; about 78% of these individuals are from low- and middle-income nations. Also, 79% of all reported suicide cases, which represent the larger part of the global suicide burden, were from developing countries [4]. This indicates that economic hardship or poverty might be one of the leading causes of the high rate of suicide deaths in developing nations of the world [4]. Because of this economic indicator, WHO adopted a mental health plan which aims to reduce the rate of suicide in member countries by 10% by 2020 [5]. Bearing this in mind, counselling psychologists and researchers have critical roles to play in identifying individual suicidal tendencies, especially among undergraduate students in Nigeria and Africa at large. Before the actual suicidal deaths or acts, there is the likelihood of continuous thoughts, intents, and attempts. Thus, suicidal tendencies are the primary and critical phase in the suicide process which could be triggered by any psychological, social, biological, economic, and spiritual stimulus resulting in complete suicide. Regrettably, this initial stage remains understudied by researchers; hence, the daily cases of suicide in every society are increasing.

Similarly, among several terminologies that are often used to describe suicide, the term "suicidal tendencies" is not popular, unlike actual suicide, thoughts/ideation, intent, attempt, and behavior. Scholars across the globe conceptualize each of these terminologies differently. For example, actual suicide is described as a deliberate self-inflicted death of conscious effort to end one's life [6]. Perceived suicide is seen as the intentional use of injurious elements, poisoning or suffocation to end one's life [7]. This definition is similar to the [8] definition that refers to suicide as any behavior that is self-initiated and carried out with the intention to die. Suicide ideation or thoughts are other terminologies which are often used interchangeably; they imply intents or thoughts and cognitions to kill self. Also, suicidal intent is the wish of an individual to want to end his or her life, while a suicide attempt refers to self-injurious actions or activities for the purpose of causing death [9, 10]. This entire process is called suicidal behavior. It is important to note that suicidal tendencies are always unconsciously undermined in the continuum which is very dangerous if any meaningful prevention would be achieved.

Several past studies in Nigeria have focused more on other stages in the suicide process; these include suicidal attempts, ideation, completed suicide and behavior [11 - 13]. Thus, to forestall suicide, to some large extent suicide tendencies are germane [14]. As mentioned earlier, nobody is immune to suicide especially when one is experiencing psychosocial or economic distress. Suicide tendency is a critical part of the suicide process; it precedes suicide thoughts/ideation, attempts, and completed suicides [15]. Essentially, identification of this first step in the suicide process – that is, suicide tendency – is crucial if the suicide progression is to be terminated and reduced [16]. Furthermore, there are several underlying factors that predispose people to commit suicide. These have been identified and studied and include depression, substance use, hopelessness, job loss, social isolation, mental disorder, and family history [17]. In addition to depression and hopelessness, perceived stress, and religiosity were considered and academic stress and socioeconomic status were identified as predisposing factors to suicidal ideation.

Very recently, interpersonal relationships, anxiety and stress, sexual abuse, unemployment and poverty, childhood adversity and terminal diseases were investigated as other predisposing factors associated with suicidal behavior. Epidemiological researchers classified specific factors that are closely associated with heightened risk for suicidal behaviors into social, psychological, economic, cultural, and biological/generic [18] behaviors. Conflict or disaster, violence, trauma or abuse, and chronic pain or illness were also associated factors [18]. In other words, personal and life events factors could contribute to someone's decision to commit suicide. Historically, Hawton [19] outlined that people could commit or attempt suicide because of heroic reasons – voluntary death for the good of others. Commonly, people die to escape unbearable or distressing situations. Another reason for suicide could be romantic – this usually occurs among people who are in love and one partner dies suddenly. Manipulation suicide is more like a threatened suicide attempt to manipulate others and is common among children and youths. Given this understanding, it becomes imperative to advance research on the tendencies to commit suicide and its associating factors among university students and to suggest possible preventions and interventions for its reduction.

1.1. Suicide Theories

In the past, experts in the field of suicidology have provided theoretical explanations for the causes of suicide. For instance, Emile Durkheim [20] postulated that suicide is a social act that is strongly influenced by societal pressures and other factors. Suicide was categorized [21, 22] into four social structures – anomic, fatalistic, altruistic, and egoistic – with each integrating into a society based on socioconformity because of drastic changes in social norms, values, and regulations [23]. Obviously, Durkheim's theory only focused on sociocultural views of suicidal behavior, leaving out psychological, biological, and economical aspects. Given this, Sigmund Freud developed another theory that takes into consideration psychological factors of suicidal behavior. In Freud's view, suicide is aggression directed towards the self to eliminate tension caused by external life events. Psychological theory of suicide further proposed three major unconscious and interrelated dimensions of suicide: revenge/hate (a wish to kill), depression/hopelessness (a wish to die), and guilt (a wish to be killed) [24].

More recently, the Interpersonal Psychology Theory of suicide was introduced [25] and this provided the progressive process of suicide, from suicidal ideation to attempts to complete suicide. Joiner proposed that perceptions of low belongingness and high burdensomeness combine to bring about a desire for suicide, whereas high capability for suicide facilitates potentially lethal suicide attempts. The strength of interpersonal psychology theory lies in the fact that it

recognized suicide progression, which is why it is popularly known as ideation-to-action theory [26]. Similarly, the propounded Integrated Motivational-Volitional model, suggests that "defeat and entrapment are the primary drivers of suicidal ideation, and that acquired capability along with other factors (such as access to lethal means, planning, and impulsivity) explain the tendency to commit suicide" [27]. Therefore, this study is based on the theoretical position of O'Connor, given that suicidal tendencies precede suicidal ideation, attempt, and complete suicide. Thus, in this study, it is believed that the desire to die is usually motivated by a myriad of reasons, including escaping a crisis or predicament that caused extreme or unbearable suffering. While the understanding of risk factors can help reduce the rate of suicide among youths, an understanding of the possible risk indicators that may be responsible for intolerant or unfulfilled needs causing a blocked psychache is therefore required. These risk indicators could be personal, psychological, or social factors [28]. Based on the aforegoing, some psychosocial and personal risk factors were hypothesized to be associated with suicidal tendencies among undergraduate students in South West, Nigeria.

1.2. Justification for the Study

The number of reported cases of suicide in Nigeria in the last two years is disheartening. There were 42 recorded cases and could be many that were not reported, partly because of social stigmatization. More worrisome is the fact that 38% (16) of the cases happened in the South West part of the country. South reported eight cases, six from South East, five from North Central, four from North West, and the remaining three were from the North East. Similarly, 11 undergraduate students who may be depending on some forms of sponsorship are also victims. Efforts by past researchers on the rate of prevalence and associated factors of suicidal attempt, ideation, or behavior were quite commendable. However, up until now, limited research, if any, has focused on the initial or elementary stage in the suicide process; hence, the justification for this study.

1.3. Aim of the Study

o The focus of this study is to explore the risk factors associated with suicidal tendencies among undergraduate students in Southwest Nigeria. Specifically, the study will access the suicidal tendencies among undergraduate students in South West, Nigeria, and

o Determine the association between the following identified risk factors: alcoholism, hopelessness, depression, helplessness, self-worry, self-doubt and inefficacy, and suicidal tendencies among undergraduate students in South West, Nigeria.

2. METHODS

The study adopted the quantitative research method, and the descriptive design of correlation type was employed. The study was conducted between July and September 2019, with undergraduate students from six federal and state-owned universities in South West Nigeria. Nigeria has a population of more than 2 000 million, with over 60% being youths. The country has six regions: North Central, North East, North West, South East, South, and South West where the study was conducted. Generically, South West comprises six states (Lagos, Ogun, Ondo, Osun, Oyo, and Ekiti). Adopting the multistage sampling methods, 350 students were sampled from each of the six states, totaling 2 100 students. The technique encompasses four stages of selection.

2.1. Measures

The participants self-reported their demographics and completed the indicative factors as below.

2.1.1. Suicidal thoughts and Behaviors

The Modified Scale for Suicide Ideation (MSSI) [29] is an 18-item measure of suicidal thoughts and behaviors. This study used 13 of the 18 items, omitting five items that were culturally irrelevant to the study's setting. Each item is on a five-point Likert response format (1 = never, 5 = many times). Examples of the items were: "I think life is not worth living", and "I feel like there is no reason for me to continue to live". The MSSI internal consistency (Cronbach alpha) was .86 in the present study.

2.1.2. Hopelessness

The Beck Hopelessness Scale-Yoruba version (BHS-Y) [30] comprises 20 items on negative beliefs and expectations about the future. For the purpose of this study, 12 of the items were adapted. Responses ranged from strongly disagree (1) to strongly agree (4). Some of the items are: "It is very unlikely that I will get any real satisfaction in the future", and "I can look forward to more good times than bad times". In the present study, the internal consistency of scores (Cronbach's alpha) was .92).

2.1.3. Alcoholism

The Attitude Scale Towards Alcohol, Alcoholism and Alcoholics (EAFAAA) [31] includes 22 items on alcohol dependence originally, however, items with a correlation coefficient less than 0.30 were terminated during the pilot study. Only 11 items with a correlation coefficient above 0.31 were retained and adapted for use in the present study. Samples of the items are: "Using alcoholic beverages is something normal", and "Alcohol relaxes daily tensions". The response format ranged from 1 = I totally disagree; 2 = I disagree; 3 = indifferent; 4 = I agree, and 5 = I totally agree. The internal consistency of scores from the EAFAA was .87 in the present study.

2.1.4. Depression

The Beck Depression Inventory (BDI) [32] comprises 21 items for measuring attitudes and symptoms of depression and 13 items were adopted for this study. The inventory scores on a four-point Likert scale ranging from 1 to 4 The internal consistency estimate of scores from the BDI was .69 in this study.

2.1.5. Helplessness

The Learned Helplessness Scale (LHS) [33] is a 20-item measure and scores on a 4-point Likert-type scale (1= Strongly disagree to 4 = Strongly agree). Twelve of the items were

adapted for this study. Examples of items are: "No matter how much energy I put into a task, I feel I have no control over the outcome", and "I do not try new tasks if I have failed similar tasks in the past". The Cronbach's alpha for the score from the LHS was 0.72 in the present study.

2.1.6. Self-Worry

The Penn State Worry Questionnaire (PSWQ) [34] comprises 16 items to measure the tendency for excessive worry. Items are on a four-point Likert response (0 = not at all, to 4 = very much). Samples of the items include: "I notice that I have been worrying about things", "I worry all the time", and "My worries overwhelm me*"*. The Cronbach's alpha coefficient for scores from the PSWQ was .68.

2.1.7. Self-Doubt

The Subjective Overachievement Scale-Subscale (SOS-SD) [35] comprises eight items and measures individual differences in self-doubt with regard to one's ability to achieve in life. Items are reverse scores on a five-point Likert scale (1 = very little self-doubt) to 5 (very high self-doubt). Examples of items are, "As I begin an important activity, I usually feel confident in the likely outcome", and "for me, avoiding failure has a greater emotional impact". In this study, the Cronbach's alpha reliability for the score from the SOS-SD was .68.

2.1.8. Low Self-Esteem

Rosenberg Low Self-esteem Scale (RLSES) [36] comprises ten items and measures self-esteem on a four-point Likert scale (1 = strongly disagree, 4 = strongly agree). Examples of the items were: "I have a negative attitude toward myself", and "I feel that I am a person of no worth, not on an equal plane with anyone" The internal consistency of Cronbach's alpha of scores from the RLSES was .69.

2.2. Ethical Consideration

The International Guidelines for Ethical Review of Epidemiological Studies were observed and considered the issue of confidentiality and the protection rights of participants, such as invasion of privacy, protection from harm and the provision of emotional and practical support. The Ethics clearance was obtained from the Social Science and Humanities Research Ethics Committee (SSHREC), University of Ibadan, Nigeria with reference number (UI/SSHREC/2019/0022). While the written informed consent was obtained from the participants before the questionnaire was administered. Also, the researcher informed all the participants that their participation was voluntary, that anybody was free to decline his/her participation, and that no name was required on the questionnaire.

The process of data collection lasted three months with the support of colleagues at the students' respective universities. Participation was open to all with no exception to gender, age, ethnicity, religion, and socioeconomic diversity. A total of 2 100 questionnaires were distributed and 2 000 were retrieved adequately completed. Thereafter, data were coded and fed into SPSS version 23 and was analysed.

A self-reported structured scale comprising suicidal tendencies, alcoholism, hopelessness, depression, helplessness, self-worry, self-doubt, and inefficacy was used for data collection. The scale was validated through a pilot study that involved 83 secondary school adolescents who were not participants in the study. Exploratory Factors Analysis was conducted to ascertain whether the items were a true measure of suicidal tendencies. This exploratory analysis was used to assess the construct validity of the scale using Principal Axis factoring with Varimax Rotation.

To satisfy the assumption on the factor structure and to assess factor validity to be sure of those factors that are associated with suicidal tendencies scale, Table **1** shows the Kaiser-Mayer-Olkin Measure of sampling Adequacy of KMO = .396 and Bartlett's Test of Sphericity (Approx. Chi-Square = 2.2044, $p<.05$). This reveals that the sample size is adequate (KMO > .05). Moreover, the fitness of the scale, Bartlett's Test of Sphericity, was significant. This implies a good factorability potential. To "clean up" the model, a scree plot test was conducted to determine the number of factors to be retained in the scale.

Table 1. Exploratory factor analysis.

Table: KMO and Bartlett's Test		
Kaiser-Mayer-Olkin Measure of sampling Adequacy		.396
Bartlett's Test of Sphericity	Approx. Chi-square	2.2044
	Df	5995
	Sig.	.000

3. RESULTS

Table **2** revealed that undergraduate students are 7.5% likely to commit suicide using logistic regression analysis of multinomial.

Of 2 100 sampled participants, in 2003 completed the questionnaires, of which 151 (7.5%) acknowledged that they have suicidal tendencies. The probability of the study participants' suicidal tendencies was 7.5% accurately correct.

Table 2. Classification of suicidal tendencies among the participants.

	Table of Classification		
Observed	**Predicted**		
	No suicidal tendencies	Yes, I have suicidal tendencies	Percent Correct
No suicidal tendencies	0	18 52	92.5%
Yes, I have suicidal tendencies	151	0	7.5%
Overall Percentage	0.0%	100.0%	100%

3.1. Risk Factors Associated with Suicidal Tendencies

The result shows the significant associations between risk factors and suicidal tendencies among undergraduate students in southwest Nigeria.

Table 3. Summary of logistic regression showing risk factors associated with suicidal tendencies.

Risk factors		No Tendencies	Suicidal tendencies	Odd Ratio (95%CI)	p-value
Gender	Male	78 (3.9%)	902(45.1%)	1.04, (.724–1.50)	.820
	Female	73 (3.7%)	947(47.4%)		
Age	16-20years	8(.4%)	132(6.6%)	1.00, (.043–2.325)	
	21-25years	135 (6.75%)	1 665 (83.2%)		.990
	Above 26	8 (.4%)	52 (2.6%)		
Alcohol	Never	20 (1%)	0 (0%)	1.02 (1.01–1.04)	.000
	Occasionally	131 (6.6%)	651 (32.6%)		
	Regularly	0 (0%)	1198 (59.9%)		
Helplessness	Helped	78 (3.9%)	312 (15.6%)	1.04 (1.01–1.06)	.009
	Helplessness	73 (3.7%)	1 537 (76.9%)		
Depression	Not depressed	58 (2.9%)	216 (10.9%)	985 (.960–1.01)	.221
	Depressed	93 (4.7%)	1 633 (81.7%)		
Hopeless	Hoped	40 (2%)	339 (16.95%)	999 (.971–1.01)	.942
	Hopeless	111 (5.5%)	1 520 (75.5%)		
Self-worried	Not worried	61 (3.1%)	479 (23.9%)	1.00 (.988–1.02)	.760
	Worried	90 (4.5%)	1 370 (68.5%)		
Self-doubt	Not in doubt	81 (4.1%)	322 (16.1%)	1.00 (.983–1.03)	.711
	Self-doubt	70 (3.5%)	1527 (76.4%)		
Inefficacy	Efficacy	20 (1%)	60 (3%)	.991 (.966–1.02)	.472
	Inefficacy	131 (6.6%)	1 789 (89.5%)		
Model χ 2 PseudoR2 n		21.69, p< .05 .02 2100			

Note: The dependent variable in this analysis is coded so that 0 = no suicide tendencies and 1 = I have suicide tendencies.

Table **3** revealed that alcoholism (OR = 1.02, 95% CI {1.01–1.04}) and helplessness (OR = 1.04, 95% CI {1.01–1.06}) had strongest associations with suicidal tendencies ($p < 0.05$), while depression (OR = .985, 95% CI {.960–1.01}), hopelessness (OR = .999, 95% CI {.971–1.01}),

self-worry (OR = 1.00, 95% CI {.988–1.02}), self-doubt (OR = 1.00, 95% CI {.983–1.03}),

inefficacy (OR = .991, 95% CI {.966–1.02}), age (OR = 1.00, 95% CI {.043–2.325}) and gender

(OR = 1.04, 95% CI {.724–1.50}) reported weak association with suicidal tendencies ($p > 0.05$). The characteristics of the risk factors revealed that 78 (3.9%) males and 73 (3.7%) females had no suicidal tendencies, while 902 (45.1%) males and 947 (47.4%) females had suicidal tendencies. Of those, 8 participants aged 16 to 20 years (.4%), 135 participants aged 21 to 25 years (6.75%), and 8 participants above 26 years (.4%) had no suicidal tendencies, while 132 participants aged 16 to 20 years (6.6%), 1 665 participants aged 21 to 25 years (83.2%) and 52 participants above the age of 26 (2.6%) had suicidal tendencies. Only 20 (1%) of the participants had never drunk alcohol with no suicidal tendencies; 131 (6.6%) drink alcohol occasionally with no suicidal tendencies, and no participants drink alcohol regularly with no suicidal tendencies. Also, participants who never drink alcohol had suicidal tendencies, 651 (32.6%) who drink alcohol occasionally had suicidal tendencies, while most of the participants, 1 198 (59.9%), drink alcohol regularly and reported suicidal tendencies.

Similarly, helplessness revealed that 78 (3.9%) were helped with no suicidal tendencies, 73 (3.7%) suffered helplessness with no suicidal tendencies, while 312 (15.6%) were helped with suicidal tendencies and 1 537 (76.9%) suffered helplessness with suicidal tendencies. Depression shows that 58 (2.9%) were not depressed and had no suicidal tendencies, 93 (4.67%) were depressed with no suicidal tendencies, 216 (10.8%) were not depressed but had suicidal tendencies, while 1 633 (81.65%) were depressed and had suicidal tendencies.

Hopeless: 40 (2%) were not hopeless with no suicidal tendencies; 111 (5.5%) were hopeless with no suicidal tendencies; 339 (16.95%) were not hopeless, with suicidal tendencies, and 1 510 (75.5%) were hopeless with suicidal tendencies.

Self-worried: 61 (3.1%) were not worried about no suicidal tendencies; 90 (3.5%) were self-worried yet had no suicidal tendencies; 479 (23.9%) were not self-worried, but had suicidal tendencies, and 1 370 (68.5%) were self-worried and reported suicidal tendencies.

Self-doubt: 81 (4.1%) had no self-doubt with no suicidal tendencies; 70 (3.5%) were in self-doubt with no suicidal tendencies; 322 (16.1%) were not in self-doubt but had suicidal tendencies, while 1 527 (76.4%) were in self-doubt and had suicidal tendencies.

Inefficacy: 20 (1%) had self-efficacy and no suicidal tendencies; 131 (6.6%) had self-efficacy and no suicidal tendencies; 60 (3%) suffered inefficacy with suicidal

tendencies, and 1 789 (89.5%) suffered inefficacy with suicidal tendencies.

4. DISCUSSION

This study advances scholarly understanding of some risk factors that are associated with suicidal tendencies among undergraduate students in southwest Nigeria. The finding demonstrates that the sampled participants had low tendencies to commit suicide. Suicidal thoughts and behaviors happen more often than complete suicide and as a precursor to suicide. It is important to understand the baseline behavior – otherwise called suicidal tendencies – to determine the possibility of suicide among youths of non-Western cultures, such as those in universities across the six states of southwest Nigeria. As mentioned, suicidal tendencies comprise the primary and critical phases in the suicide process which, when triggered by some past trauma experiences coupled with present pressure, often possibly increases the risk of poor reaction to stressors, thereby predisposing its victims to suicidal ideation and behaviors. As revealed in this study, a small proportion of undergraduate students have suicidal tendencies and perhaps suicide might be avoided if perceived common risk factors are not ignored. This finding substantiates past studies [37 - 39] where a high rate of suicidal ideation was found.

Furthermore, of the nine risk factors considered in this study, only alcoholism and helplessness reported a strong and significant association with suicide tendencies, while factors such as gender, age, depression, hopeless, self-worried, self-doubt, and inefficacy had a weak and non-significant association with suicidal tendencies in this study. The significant contribution of alcoholism to suicidal tendencies may be reflective of the fact that undergraduate students are in their youthful stage when exploration is a common characteristic. Hence, alcohol consumption is sometimes used as a coping strategy. However, too much alcohol could be an indication of suicidal tendencies. Additionally, helplessness was found to have a strong association with suicidal tendencies in this study, which might be explained by higher levels of cultural bonding and family support – known as a collectivist culture – that is gradually going into extinction in Africa. In the Yorùbá-speaking culture where the study was conducted, providing support for those in need is a charitable character inherent in individuals and families as useful members of the society [40]. Surprisingly, this study found no evidence of association of several well-established suicide risk factors, such as depression hopelessness, self-worry, self-doubt, and inefficacy. However, this finding is consistent with previous research [41, 42] that found that these factors appear to be associated with suicide attempts because they are associated with the process of suicidal behavior and could trigger suicidal thoughts. This explains the fact that suicidal tendencies are dormant risk factors that could be activated early by factors such as alcoholism and hopelessness.

RECOMMENDATIONS AND CONCLUSION

This study demonstrates that suicidal tendencies prevail slightly among university students, with self-doubt and helplessness found to have strong association with suicidal tendencies among undergraduate students in South West Nigeria. Therefore, the outcome of this study could assist mental health, public health, counselling psychologists, psychiatrists, as well as other medical professionals in developing protective factors and strategies for suicide prevention, relevant to university students. This would enhance self-identity and purpose in life as they go through several challenges that may post a threat to their future goals and achievements. Based on these findings, it is suggested that counselling psychologists, public health providers and policymakers should give urgent attention to the issue of suicide among university students by creating regular awareness on issues of suicide across universities in Nigeria. Also, effective suicide prevention strategies – that could include but not be limited to social support – should be developed to achieve the global World Health Organisation strategic plan of preventing suicide. In other words, suicide risk mitigation interventions that build on school/social support would add to resilient living in these collectivist cultures young people. There is a need to introduce suicidal prevention education into the university curriculum as a way of containing the prevalence of suicide among adolescents and youths.

LIMITATIONS AND FUTURE SCOPE OF RESEARCH

This intellectual piece is not without limitations. First, this study only considered university students, whereas there are some youths who might have graduated several years previously and are still without jobs; they may be frustrated and thinking of committing suicide. Secondly, given several studies that have predicted many risk factors associated with suicide, future research could consider quasi-experimental study which could help prevent suicidal behavior. This suggests that future researchers should focus more on preventive measures by giving attention to other psychosocial and personal risk indicators.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The Ethics clearance was obtained from the Social Science and Humanities Research Ethics Committee (SSHREC), University of Ibadan, Nigeria with reference number (UI/SSHREC/2019/0022).

HUMAN AND ANIMAL RIGHTS

No Animals were used in this research. All human research procedures were followed in accordance with the ethical standards of the committee responsible for human experimentation (institutional and national), and with the Helsinki Declaration of 1975, as revised in 2013.

CONSENT FOR PUBLICATION

Written informed consent was obtained from the participants .

AVAILABILITY OF DATA AND MATERIALS

Not applicable.

FUNDING

None.

CONFLICT OF INTEREST

The author declares no conflict of interest financial or otherwise.

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Declared none.

APPENDIX

Dear Respondents,

This questionnaire is designed basically for research purpose. It seeks to know the characteristics, intensity and pervasiveness of suicidal tendencies in adolescents. It also aims to assess the risk of later suicide attempt in individual adolescents who have thoughts, plans, and wishes to commit suicide. All, information provided would be treated confidentially. Please, be honest in your Responses.

Section A

Demographic Information

1 Age: …….

2 Gender: Male () and Female ()

3 Position in the family…….

4 Religion ……

5 Type of Family: Monogamy () and Polygamy ()

Section B

Modified Scale for Suicide Ideation (MSSI by Miller, INorman, Bishop & Dow, 1986).

Please indicate by ticking (✓) the item that best describe your state of emotion: TA=totally Agree, A=Agree, D= Disagree TD= Totally Disagree

	Statement	TA	A	D	TD
1	I think life is not worth living				
2	I feel like there is no reason for me to continue to live				
3	Sometimes I feel like killing myself				
4	I often time enjoy talking about death				
5	I always think that things are too bad to share with people around me				
6	Committing suicide is to push others				
7	I feel if I die, people and things will be better off				
8	I feel it would be less painful to die than to keep living the way things are now				
9	Nothing seems to go well for me				
10	I feel there are much I can do by myself which will be worthwide				
11	I think many people would be pained if I die				
12	After all, I am the owner of my life therefore I can do anything I like with it				
13	I feel many people care for me deeply				

Hopelessness

The Beck Hopelessness Scale-Yoruba version (BHS-Y) by Aloba, Akinsulore, Mapayi, Oloniniyi, Mosaku, Alimi & Esan (2015). Please indicate by ticking (✓) the item that best describe you where: SA=Strongly Agree, A=Agree, D= Disagree SD= Strongly Disagree

	Statement	SA	A	D	SD
1	It is very unlikely that I will get any real satisfaction in the future				
2	I have great faith in the future.				
3	My past experiences have prepared me well for the future				
4	I don't expect to get what I really want				
5	I just can't get the breaks, and there is no reason I will in the future				
6	The future seems vague and uncertain to me.				
7	I happen to be particularly lucky, and I expect to get more of the good things in life than the average person				
8	I can look forward to more good times than bad times				
9	There is no use in really trying to get anything I want because I probably won't get it				
10	When things are going badly, I am helped by knowing they cannot stay that way forever				
11	All I can see ahead of me is unpleasantness rather than pleasantness.				
12	When I look ahead to the future, I expect that I will be happier than now.				

Alcoholism

The Attitude Scale Towards Alcohol, Alcoholism and Alcoholics (EAFAAA). Please indicate by ticking (✓) the item that best describe you where: SA=Strongly Agree, A=Agree, D= Disagree SD= Strongly Disagree

S/n	Statements	SA	A	D	SD
1	I believe people can drink and still be able to control themselves				
2	Small doses of alcohol can cause dependence				
3	I think that having a shot of whisky is considered social drinking				
4	Alcohol relaxes daily tensions				
5	I drink whenever I am upset and stressed up				
6	I think moderate drinking of alcohol is good for the body				
7	Any amount of drinking will make the person dependent				
8	I think that people who use alcohol are fleeing from some problem				
9	I also sometimes drink alcohol to escape life pressure				
10	Using alcoholic beverages is something normal				
11	I think that people have the right to drink alcohol if they choose to				

Source: Adapted From - São Paulo, SP (2010)

Depression

The Beck Depression Inventory (BDI). Please indicate by ticking (✓) the item that best describe you where: SA=Strongly Agree, A=Agree, D= Disagree SD= Strongly Disagree

	Statement	SA	A	D	SD
1	I am so sad and unhappy that I can't stand it				
2	I feel the future is hopeless and that things cannot improve				
3	I feel I am a complete failure as a person.				
4	I am dissatisfied or bored with everything				
5	I feel guilty all of the time				
6	I feel I am being punished.				
7	I hate myself				
8	I blame myself for everything bad that happens.				
9	I feel irritated all the time				
10	I have lost all of my interest in other people.				
11	I don't cry any more than usual.				
12	I make decisions about as well as I ever could.				
13	I believe that I look ugly				
14	I can't do any work at all.				
15	I wake up several hours earlier than I used to and cannot get back to sleep				
17	I have no appetite at all anymore				
18	I am so worried about my physical problems that I cannot think of anything else				
19	I am too tired to do anything				
20	I would kill myself if I had the chance				
21	I have lost more than fifteen pounds				

Helplessness

The Learned Helplessness Scale (LHS) by Seligman (1975). Please indicate by ticking (✓) the item that best describe you where: SA=Strongly Agree, A=Agree, D= Disagree SD= Strongly Disagree

	Statement	SA	A	D	SD
1	No matter how much energy I put into a task, I feel I have no control over the outcome				
2	I do not try a new task if I have failed similar tasks in the past				
3	I feel completing a task successfully is probably by lucky				
4	I feel other people have more control over their success and/or failure than I do				
5	When I perform poorly it is because I don’t have the ability to perform better				
6	I feel that my success reflects chance, not my ability				
7	My behaviour does not seem to be influenced by the success of my peer group				
8	No matter how hard I try, things never seem to work out the way I want them to				
9	I do not try a new task if I have failed similar tasks in the past				
10	I do not accept a task that I do not think I will succeed in				
11	I am unsuccessful at most tasks I try				
12	I am unable to reach my goals in life				

Self-Worry

The Penn State Worry Questionnaire (PSWQ) by Seligman (1975). Please indicate by ticking (✓) the item that best describe you where: 1= not at all, 2=rarely of me, 3= somewhat of me 4=often like me and 5= Very much like me

	Statement	1	2	3	4	5
1	If I don't have enough time to do everything, I don't worry about it					
2	My worries overwhelm me					
3	I don't tend to worry about things					
4	Many situations make me worry					
5	I know I should not worry about things, but I just cannot help it					
6	When I am under pressure I worry a lot					
7	I am always worrying about something					
8	I find it easy to dismiss worrisome thoughts					
9	As soon as I finish one task, I start to worry about everything else I have to do					
10	I never worry about anything					
11	When there is nothing more I can do about a concern, I do not worry about it anymore					
12	I have been a worrier all my life					
13	I notice that I have been worrying about things					
14	Once I start worrying, I cannot stop					
15	I worry all the time					
16	I worry about projects until they are all done					

Source: Adapted from Penny State Worry Questionnaire. Behaviour Research and Therapy, 28, 487-495. Reprinted with permission from Elsevier Science and T.D. Borkovec, Ph.D.

Self-Doubt

The Penn State Worry Questionnaire (PSWQ) by Seligman (1975). Please indicate by ticking (✓) the item that best describe you where: 1=very little self-doubt; 2=somewhat in self-doubt; 3=not sure; 4= often in self-doubt; 5 =very high self-doubt

	Statement	1	2	3	4	5
1	when engaged in an important task, most of my thoughts turn to bad things that might happen (*e.g.*, failing) than to good					
2	For me, avoiding failure has a greater emotional impact (*e.g.*, sense of relief) than the emotional impact of achieving success (*e.g.*, joy, pride).					
3	More often than not I feel unsure of my abilities.					
4	I sometimes find myself wondering if I have the ability to succeed at important activities.					
5	I often wish that I felt more certain of my strengths and weaknesses					
6	As I begin an important activity, I usually feel confident in my ability					
7	Sometimes I feel that I don't know why I have succeeded at something					
8	As I begin an important activity, I usually feel confident in the likely outcome					
9						

Source: Adapted from Penny

Low Self-Esteem

Rosenberg Low Self-esteem Scale (RLSES). Please indicate by ticking (✓) the item that best describe you where: SA=Strongly Agree, A=Agree, D= Disagree SD= Strongly Disagree

	Statement	SA	A	D	SD
1	On the whole, I am satisfied with myself				
2	At times, I think I am no good at all				
3	I feel that I have a number of good qualities				
4	I am able to do things as well as most other people				
5	I feel I do not have much to be proud of				
6	I certainly feel useless at times				
7	I feel that I'm a person of worth, at least on an equal plane with others				
8	I wish I could have more respect for myself				
9	All in all, I am inclined to feel that I am a failure				

contd.....

	Statement	SA	A	D	SD
10	I take a positive attitude toward myself.				

Source: Adapted from Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press

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