



SUICIDE IDEATION: AGE AND CORRELATES AMONG UNIVERSITY STUDENTS IN NYANZA REGION, KENYA

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Abstract:

Suicidal behaviors have been on the rise among university students in the recent past. The aim of this paper was to examine suicide ideation in relation to age category and correlates among university students in the Nyanza region with the aim of preventing occurrences of completed suicide. The objectives of the study were to determine the difference in age category in relation to suicide ideation and to examine the correlates of suicide ideation. The study was based on the Three Step Theory of Suicide (3ST) by Klonsky, May and Saffer. The research design employed was a correlational research design. Purposive sampling was used to select four public universities from the Nyanza region as well as university counsellors. Stratified sampling was thereafter used to select undergraduate students depending on their year of study. Simple random sampling was finally used to select 1477 students from the four universities with the guidance of a sample size table developed by Krejcie and Morgan (1970). Student questionnaires, interview schedules as well as counseling records were used to collect data. Data analysis was done using Statistical Package for Social Sciences (SPSS V20). Descriptive statistics, including frequencies and percentages, were used. Quantitative data was thereafter analyzed using chi-square and linear regression at a .05 level of significance, and qualitative data was analyzed using themes. The study findings revealed that suicide ideation was not related to the age category of the students. The results from linear regression analysis indicated that sexual abuse, romantic break up, alcohol addiction, HIV/AIDS, elections and cyber suicide are predictors of suicide ideation, while financial crisis and COVID-19 are not predictors of suicide ideation. The study recommends that the ratio of student to counsellor at the university should be increased to allow for easy access to counselling services. The study also recommends that during orientation, the counselling department should create awareness of some of the stressful life events students are likely to encounter on campus and equip them with coping skills, as well as

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encourage them to visit the counselling department whenever they feel like talking to someone.

Keywords: suicide ideation, age, correlates, university students, Kenya

1. Introduction

Suicide is a global concern with long-lasting trauma on family, friends and relatives (Pandey, Bista, Dhungana, Aryal, Chalise & Dhimal, 2019). Suicide has been defined as self-inflicted death (Schneidman, 2005). Suicide has a global mortality rate of 800,000 annually and is the second leading cause of death in those aged 10-29 years (WHO, 2015). Suicide is among the top 5 mental health issues facing undergraduate students at universities globally (WHO, 2019). It is approximated that 24,000 college students in U.S.A. attempt suicide while 1100 succeed in their attempt, making suicide the second leading cause of death among U.S.A college students (Dendup, Dorji & Phuntsho, 2020). In China, a study conducted in six universities revealed that 7.6% of university students had reported suicidal behavior (Tang, Byrne & Qin, 2018). Prevalence of suicide behavior between 2019-2020 was also high among university students in Indonesia, Thailand and Taiwan (Pramukti, Strong, Sitthimongkol, Setiawan, Pandin, Yen & Ko, 2020). In Ethiopia the overall estimate of suicide behavior among university students was 28.9% (Abdu, Hajure & Desalegn, 2020), while Ghana had a 21.3% prevalence (Quarshie, Cheataa-Plange, Annor, Asare-Doku & Lartey, 2019).

In Kenya, Suicidal behaviours have been on the rise in institutions of higher learning (Wanyoike, 2015; Kabugi, 2019). A study conducted by Sawahel (2019) indicated that 20 students in Kenyan universities committed suicide between 2014 and 2018. Nyagwencha and Ojuade (2021) also found that suicide behavior is more common among youths aged 20-22. Suicide behaviour can be looked at in terms of a continuum ranging from suicidal ideation to attempted suicide to death by suicide (Young, Revich & Soininen, 2015). Young *et al.* (2015) state that *“for every successful suicide, there are more attempts and for every attempt, there are numerous people harbouring suicidal thoughts. Suicide ideation is thought about suicide including suicide plan without suicide act”* (Khalid, 2012). Suicide ideation is a strong predictor of suicide deaths (Nock *et al.*, 2008), and its identification is crucial in reducing suicidal related behaviour. Various studies have been conducted on different aspects of suicidality (Lockman, 2016) in U.S.A., Pandey (2019) in Nepal and Ram, Chaudhury and Jagtap (2018) in India. Most of these studies have focused on adolescents (Muiru, Thinguri & Macharia, 2014; Misigo, 2021). Few studies on suicide behaviour have been conducted in Kenya (Wanyoike, 2015; Kabugi, 2019; Nyagwencha & Ojuade, 2021; Misigo, 2021), but none has addressed the issue of age and correlates among university students in the Nyanza region with its three counties among the top five leading counties in suicide attempts (National Research Crime Centre, 2019). Although studies report depression as a significant correlate for suicide ideation among university students, other correlates like sexual abuse, financial crisis, broken

relationships, alcohol, COVID-19, cyber suicide, election and HIV have not been looked into conclusively. This paper will focus on suicide ideation in relation to the age category of students as well as the correlates among university students in the Nyanza region.

2. Objectives of the study

This study was guided by the following objectives;

- To determine the difference in age category of students in relation to suicide ideation.
- To examine the correlates of suicide ideation.

3. Methodology

The purpose of this study was to examine the correlates of suicide ideation as well as determine age category differences in relation to suicide ideation. The study was conducted in four universities in Nyanza region, that is Maseno University, Jaramogi Oginga Odinga University of Science and Technology, Kisii University and finally Tom Mboya University. The study was based on Pragmatism Philosophical assumption by Charles Pierce, William James and John Dewey and the Three Step Theory of Suicide (3ST) by Klonsky, May and Saffer (2016). In pragmatist philosophical orientation, there are different ways of construing the world and undertaking research (Fraenkel, Wallen & Hyun, 2012). The correlation research design was employed to describe the relationship between variables (Blaike, 2003), that is suicide ideation and the correlates, which were Sexual abuse, financial crisis, broken relationship, alcohol, cyber suicide, election, HIV and COVID-19. The study's population was comprised of undergraduate students from the four universities mentioned above and university counsellors from the Nyanza region.

Purposive sampling was employed to select the Nyanza region, four universities in Nyanza region to be included in the study, as well as the university counsellors. Stratified sampling was used to divide the population into homogenous strata (Cohen et al., 2000), that is first-year students, second-year students, third-year students and finally, fourth-year students. Simple random sampling was thereafter used to select the undergraduate students. The sample size was determined by the sample size table developed by Krejcie and Morgan (1970), which translated to 377 students from Maseno, 370 from Jaramogi Oginga Odinga (JOOUST), 370 from Kisii and 360 from Tom Mboya (TMU) totaling 1477 students. Table 1 represents the sample size.

Table 1: Sample size

University	Maseno	JOOUST	Kisii	TMUC	TOTAL
Students	377	370	370	360	1477
Counselor	1	1	1	1	4

Source: Researcher, 2020.

The research instruments used in this study were a student’s questionnaire, an interview schedule and existing counseling records. The questionnaire contained the correlates, which were sexual abuse, financial crisis, broken relationship, alcohol, COVID-19 cyber suicide, election and HIV. The questionnaire used a rating scale ranging from 1(Not Stressful), 2(Slightly Stressful), 3(Moderately Stressful), 4(Quite stressful) and 5(Extremely stressful). The interview schedule for the counselors contained four questions related to the objectives of the study. The researcher used the interview schedule to acquire more information from the counselors pertaining to suicidal behaviors at the university as well as for triangulation purposes. The researcher also used the counseling records to find out the number of students who had sought counseling services due to suicidal thoughts as well as to find out more information on the correlates of suicide ideation. Statistical Package for Social Sciences (SPSS V20) was used to analyze data. Descriptive statistics, including frequencies and percentages, were used. Inferential statistics, including chi-square and linear regression, were also used to analyze data at a .05 level of significance. Qualitative data was analyzed using themes.

4. Findings

Two hypotheses were tested in this study:

H₀₁: There is no significant difference in the age category of students in relation to suicide ideation.

H₀₂: There is no significant relationship between correlates and suicide ideation.

4.1 Prevalence of suicide ideation in relation to age

Table 2: Prevalence of suicide ideation in relation to age

			Suicide Ideation Categories			Total
			Low	Moderate	High	
Age	17-19yrs	Count	184	60	13	257
		% within age	71.6%	23.3%	5.1%	100.0%
	20-22yrs	Count	530	147	18	695
		% within age	76.3%	21.2%	2.6%	100.0%
	23-25yrs	Count	255	50	14	319
		% within age	79.9%	15.7%	4.4%	100.0%
	26yrs & above	Count	35	8	0	43
		% within age	81.4%	18.6%	0.0%	100.0%
Total	Count	1004	265	45	1314	
	% within age	76.4%	20.2%	3.4%	100.0%	

Source: Survey Data (2023).

The cross-tabulation results show that 5.1% of students aged 17 – 19 years had high ideation, followed by those who were aged 23 – 25 years (4.4%), and lastly 2.6% for those who were aged 20 – 22 years. The above results suggest that the prevalence of suicide ideation is not related to one’s age bracket and can occur across the age categories of

students. To establish whether the relationship between age category and suicide ideation was significant, a chi-square analysis was computed, and the results are presented in Table 3.

Table 3: Prevalence of suicide ideation in relation age

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.063 ^a	6	.061
Likelihood Ratio	13.544	6	.035
Linear-by-Linear Association	5.261	1	.022
N of Valid Cases	1314		

Source: Survey Data (2023).

The critical table values for the chi-square are ($\chi^2= 12.592$, $df=6$ & $p=0.05$) marginally higher than the computed chi-square values ($\chi^2= 12.063$, $df=6$ & $p=0.061$), which implies that there is no significant difference ($p>0.05$) of student’s age category in relation to suicide ideation. Therefore, the first null hypothesis, which states that **H₀₁: There is no significant difference in the age category of students in relation to suicide ideation**, is accepted.

4.2 Correlates of Suicide Ideation (stressful events that could trigger suicide thoughts)

At first, the students were asked to indicate their experience (not stressful, slightly stressful, moderately stressful, quite stressful and extremely stressful) of eight correlates: sexual abuse, financial crisis, romantic break up, COVID-19, alcohol addiction, HIV/AIDSs, elections and cyber suicide. Figure 1 presents the experiences of students with respect to sexual abuse.

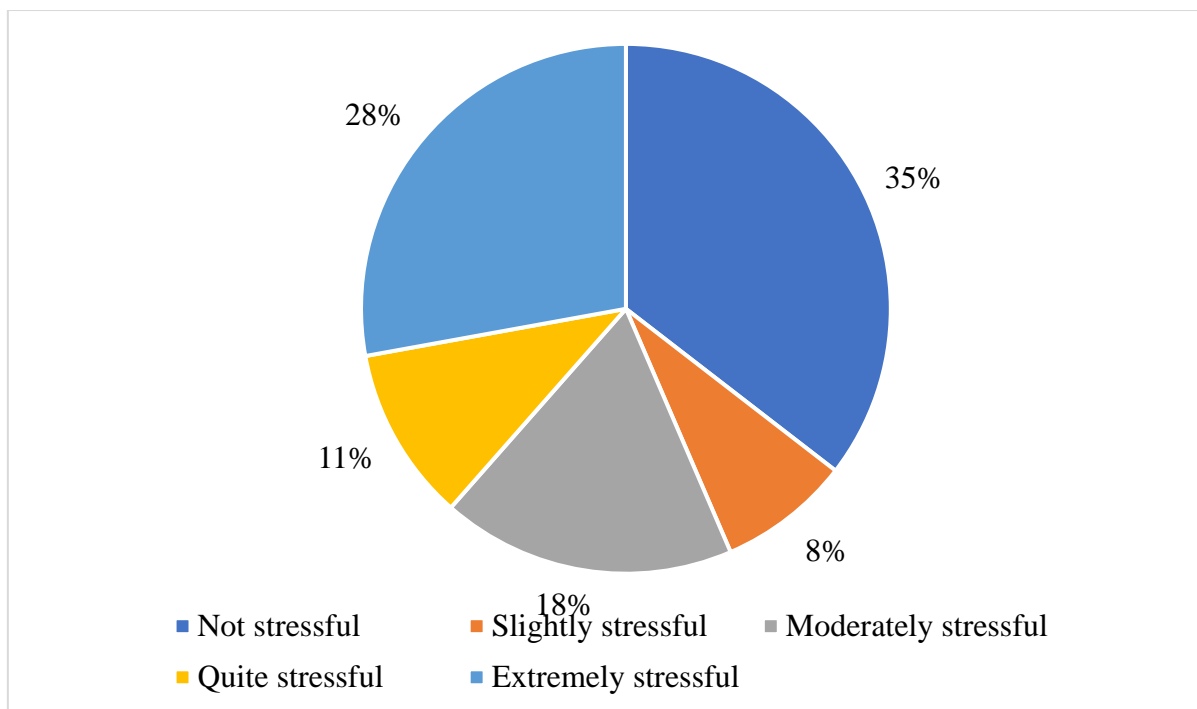


Figure 1: Experience of students in relation to sexual abuse

Results show that sexual abuse has been extremely stressful for 35% of students, quite stressful for 11% of the students, moderately stressful for 18% of the students, slightly stressful for 8% of the students and not stressful for 28% of the students. The results suggest that sexual abuse could be a predictor or a driver towards students developing suicide ideation. One university counsellor also indicated that sexual abuse is one of the reasons students want to commit suicide.

The students were also asked to indicate if a financial crisis had been a stressful experience or not. The results are presented in Table 4.

Table 4: Financial crisis experienced by students

Financial crisis experience	Frequency	Percent (%)
Extremely stressful	651	49.5
Quite stressful	231	17.6
Moderately stressful	201	15.3
Slightly stressful	117	8.9
Not stressful	114	8.7
Total	1314	100.0

Source: Survey Data (2023).

Half, 651(49.5%) of students, reported that a financial crisis experience has been an extremely stressful event in their lives. 231(17.6%) indicated that financial crisis experience was quite stressful, 201(15.3%) indicated that it was moderately stressful and 117(8.9%) mentioned that financial crisis experience was slightly stressful. Only 114(8.7%) indicated that financial crisis is not stressful. This implies that financial crisis could be a trigger for suicide ideation by students in universities. This is in agreement with three university counsellors who stated that a financial crisis is one of the triggers of suicidal behaviour.

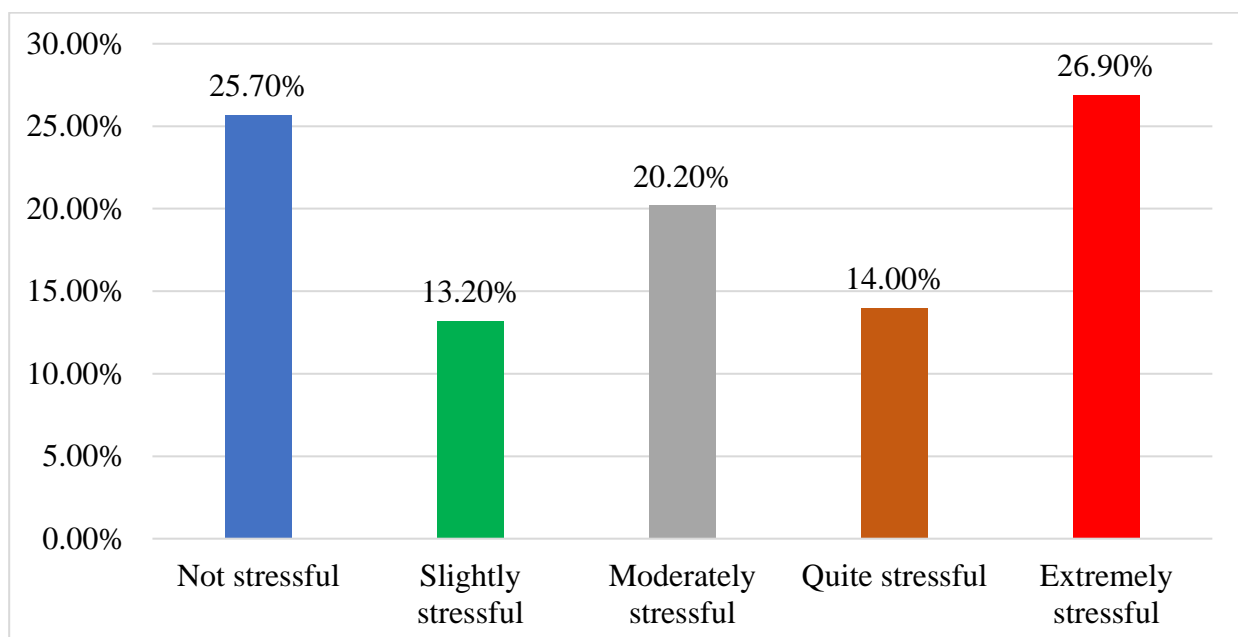


Figure 2: Romantic break-up experience by students

The students were also asked to state whether the experience of a romantic break-up has been a stressful event in their lives or not. Their responses are given in Figure 2.

Results show that 26.9% of students were extremely stressed due to a romantic break-up, 14.0% were quite stressed, 20.2% were moderately stressed, and 13.2% were slightly stressed. Only 25.70% of the students were not stressed about romantic break-up experiences. This means that romantic break-up is one of the predictors of suicidal thoughts. This is in agreement with what three university counsellors stated.

The study also asked the respondents whether the COVID-19 pandemic brought stressful experiences in their lives. Their responses are presented in Table 5.

Table 5: COVID-19 pandemic experience by students

COVID-19 pandemic experience	Frequency	Percent (%)
Extremely stressful	285	21.7
Quite stressful	179	13.6
Moderately stressful	276	21.0
Slightly stressful	186	14.2
Not stressful	388	29.5
Total	1314	100.0

Source: Survey Data (2023).

Results show that only 285 (21.7%) of students were extremely stressed due to the COVID-19 pandemic experience, 179 (13.6%) were quite stressed, 276 (21.0%) were moderately stressed, 186 (14.2%) were slightly stressed while 388 (29.5%) were not stressed by the pandemic. This means that there are some students who were stressed by the COVID-19 pandemic while others were not stressed by the COVID-19 experience.

The response from students with respect to stressful experiences due to alcohol addiction is provided in Figure 3.

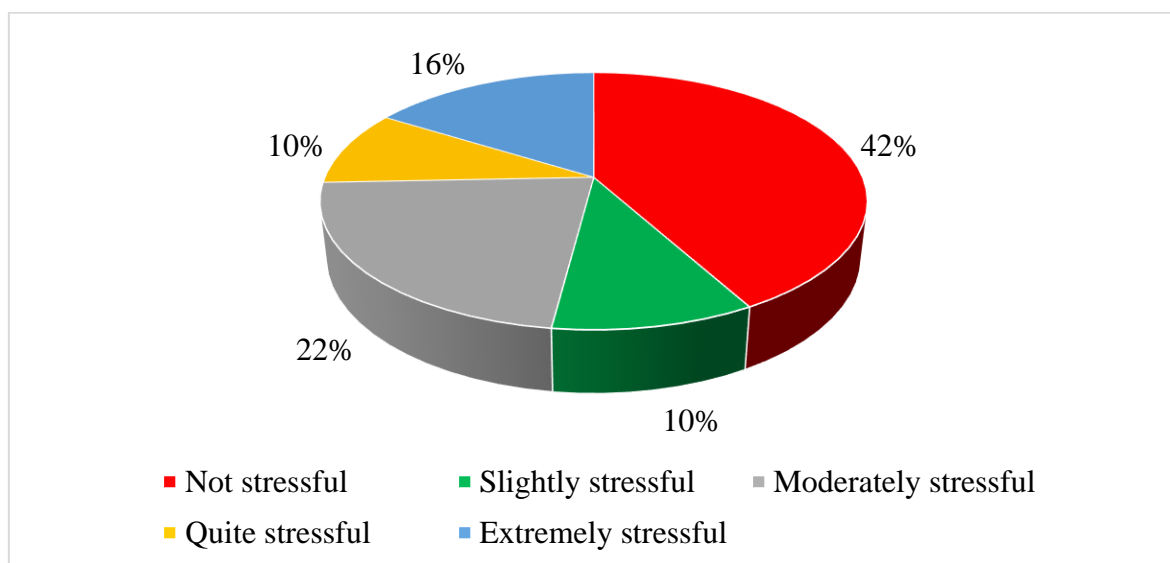


Figure 3: Alcohol addiction experience by students

Results show that only 16.1% of the students were extremely stressed due to alcohol addiction, 10% were quite stressed up, 22% were moderately stressed up, 10% were slightly stressed up, and 42% reported that alcohol addiction experience has not been stressful. This is in agreement with the responses from all four university counsellors that alcohol addiction could be one of the triggers of suicide ideation.

The responses on whether the HIV/AIDS experience had been a stressful experience for students are provided in Table 6.

Table 6: HIV/AIDS experience by students

HIV/AIDS experience	Frequency	Percent (%)
Extremely stressful	345	26.3
Quite stressful	125	9.5
Moderately stressful	257	19.6
Slightly stressful	90	6.8
Not stressful	497	37.8
Total	1314	100.0

Source: Survey Data (2023).

Findings reveal that 345 (26.3%) of students reported extremely stressful experiences due to HIV/AIDS's effect on their lives, either through being infected or affected. 125 (9.5%) reported quite stressful experiences, 257 (19.6%) reported moderately stressful experiences, and 90 (6.8%) reported slightly stressful experiences. However, 497 (37.8%) reported that HIV/AIDS had not been a stressful experience. A considerable number reported HIV/AIDS to be extremely stressful. This is in agreement with the responses from all the university counsellors that HIV/AIDS could be a predictor of suicide ideation.

The students were also asked to state whether elections (general and campus) had brought stressful experiences in their lives. Their feedback is provided in Figure 4.

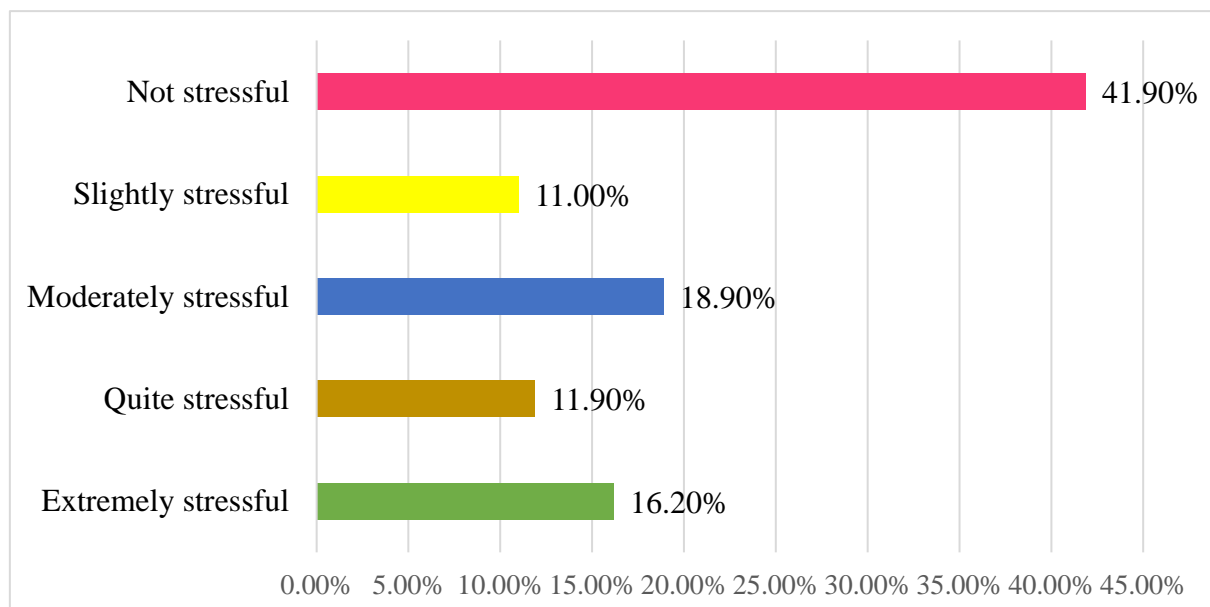


Figure 4: Elections experience by students

Results show that 369 (28.1%) of students had stressful election experiences, 249 (18.9%) had moderately stressful election experiences, and 145 (11.0%) had slightly stressful election experiences. 41.90% were not stressed about the HIV/AIDS experience. In interviewing the university counsellors, one of the participants, P2, said:

“Elections, especially campus elections, can lead to students experiencing suicidal thoughts. Most of the students involved in campus politics and elections usually spend a lot of money during campaigns to convince students to elect them. Some of the money is usually borrowed from friends or their parents fund them. Losing in an election stresses them up because of the financial implications, and this can make them have suicidal thoughts.”

This statement suggests that election is a predictor of suicide ideation. Lastly, students were asked whether watching news about celebrities committing suicide was a stressful experience for them. Their responses are provided in Table 7.

Table 7: Cyber suicide experience by students

Cyber suicide experience	Frequency	Percent (%)
Extremely stressful	204	15.5
Quite stressful	144	11.0
Moderately stressful	239	18.2
Slightly stressful	142	10.8
Not stressful	585	44.5
Total	1314	100.0

Source: Survey Data (2023).

The results reveal that only 348 (26.5%) of students had stressful experiences after watching the news about celebrity(ies) committing suicide in the media, 239% reported having moderately stressed, 142 (10.8%) had slightly stressful experiences, and 585 (44.5%) reported no stressful experience. In interviewing university counsellors, the counsellors were asked about other reasons which students give for wanting to attempt or complete suicide. One of the participants, P1, said:

“The other factors which could trigger suicidal thoughts but are not mentioned are academic pressure, family dynamics, as well as psychological disorders.”

P2, on the other hand, said that,

“Suicidal thoughts are also triggered by factors such as family background, history of suicide in the family, psychological disorders and social stratification issues.”

P3 said that,

“Students could also think of committing suicide because of parent-child conflict, illness or medical issues, academic pressure, campus elections, as well as mental health issues.”

P4 said that,

“Other than the triggers mentioned, students tend to have suicidal thoughts due to academic pressure, family dynamics, financial crisis as well as illness.”

These statements suggest that other correlates which could trigger suicide ideation are: family background, parent-child conflict, dysfunctional family challenges, psychological disorders, mental health issues and social stratification issues.

4.3 Relationship between correlates and suicide ideation

The second null hypothesis was:

H₀₂: There is no significant relationship between correlates and suicide ideation

Considering the correlates were different and somewhat not related, it was important to conduct a linear regression analysis for each correlate in order to make conclusions on the overall hypothesis.

A linear regression analysis was computed to check on the significant relationship between the first correlate (sexual abuse) and suicide ideation at a 95.0% confidence level. The assumption was that the data followed a normal distribution pattern, and the equation was linear. The results of the analysis are presented in Table 8(a).

Table 8(a): Model summary of sexual abuse and suicide ideation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.156 ^a	.024	.023	.73236	.024	32.588	1	1312	.000

a. Predictors: (Constant), sexual abuse

Source: Survey Data (2023).

The correlation is 0.156, which implies there is a positive correlation between sexual abuse and suicide ideation. The R square change implies that in this model, sexual abuse accounts for a 2.4% change in suicide ideation. The remaining 97.6% could be explained by other factors not accounted for in this model. Further, the F-statistics shows that the relationship between the variables is linear. Table 8(b) presents the coefficient of the model.

Table 8(b): Coefficients^a of sexual abuse and suicide ideation

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.743	.043		86.251	.000
	Sexual abuse	.070	.012	.156	5.709	.000

a. Dependent Variable: Suicide Ideation

The linear regression equation for the above model can be written as:

$$y = 3.743 + 0.070x_1 \dots\dots\dots(1)$$

The above result shows that there exists a significant positive relationship ($\beta=0.070$, $p=0.001$) between sexual abuse and suicide by students in four public universities in the Nyanza region. Therefore, the null hypothesis is rejected ($p<0.05$) for correlate number one, resulting in the conclusion that there exists a significant positive relationship between sexual abuse and suicide ideation.

A linear regression analysis was computed to check on the significant relationship between the second correlate (financial crisis) and suicide ideation at a 95.0% confidence level. The results of the analysis are presented in Table 9(a).

Table 9(a): Model summary of financial crisis and suicide ideation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.015 ^a	.000	-.001	.81435	.000	.293	1	1312	.589

a. Predictors: (Constant), Financial Crisis

Source: Survey Data (2023).

There is no correlation between financial crisis and suicide ideation ($R=0.015$), and this is supported by the fact that there is no linear relationship between the predictor and the dependent variable. To check whether this deduction is significant or not, Table 9(b) presents the coefficients.

Table 9(b): Coefficients^a of financial crisis and suicide ideation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.034	.042		96.356	.000
	Financial Crisis	.009	.017	.015	.541	.589

a. Dependent Variable: Suicide Ideation

The beta results are 0.009, which is almost zero, and the computed p-value is 0.589, which means there is no significant coefficient between financial crisis and suicide ideation. Therefore, the second null hypothesis is accepted ($p>0.05$) for the financial crisis (second

correlate) on suicide ideation. Hence, it is deduced that financial crisis is not a predictor of suicide ideation among students in the four universities in the Nyanza region.

A linear regression analysis was computed to check on the significant relationship between the third correlate (romantic breakup) and suicide ideation at a 95.0% confidence level. The results of the analysis are presented in Table 10(a).

Table 10(a): Model summary on romantic breakup and suicide ideation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.300 ^a	.090	.089	.70726	.090	129.712	1	1312	.000

a. Predictors: (Constant), romantic breakup

Source: Survey Data (2023).

The correlation between romantic breaks up and suicide ideation is positive (R=0.300). The R-squared statistics show that 9.0% of change in suicide ideation can be due to romantic breaks. The results of the study are provided in Table 10(b) to establish the significance of the relationship.

Table 10(b): Coefficients^a on romantic breakup and suicide ideation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.535	.042		83.536	.000
	romantic breakup	.144	.013	.300	11.389	.000

a. Dependent Variable: Suicide Ideation

Source: Survey Data (2023).

The regression equation for the above model is written as:

$$y = 3.535 + 0.144x_3 \dots\dots\dots (2)$$

The regression coefficient shows a positive beta coefficient ($\beta=0.144$), which is also significant ($p=0.001$), which results in the rejection of the second null hypothesis on the third correlate ($p<0.05$). It can be concluded that there exists a significant positive relationship between romantic breaks (third correlate) and suicide ideation.

A linear regression analysis was computed to check on the significant relationship between the fourth correlate (COVID-19) and suicide ideation at a 95.0% confidence level. The results of the analysis are presented in Table 11(a).

Table 11(a): Model summary on COVID-19 and suicide ideation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.044 ^a	.002	.001	.74070	.002	2.498	1	1312	.114

a. Predictors: (Constant), COVID 19

Source: Survey Data (2023).

The model summary table shows that there is no correlation ($R=0.044$) between the COVID-19 pandemic experience and suicide ideation among students. Also, the R-square change is low, which implies that COVID-19 pandemic experiences do not predict suicide ideation amongst students. The change statistics (f-tests) show that the relationship is not linear ($f=2.498$, $p=0.114$). The coefficient results for the equation are presented in Table 11(b).

Table 11(b): Coefficients^a on COVID-19 and suicide ideation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.895	.047		82.441	.000
	COVID 19	.021	.013	.044	1.580	.114

a. Dependent Variable: Suicide Ideation

Source: Survey Data (2023).

The regression beta coefficient values are ($\beta=0.021$), and the significant value is ($p=0.114$), which implies that the coefficient is not significant ($p>0.05$). Therefore, the second null hypothesis is accepted on the fourth correlate (COVID-19). This implies that the experiences of COVID-19 by students do not predict suicidal thoughts.

A linear regression analysis was computed to check on the significant relationship between the fifth correlate (alcohol addiction) and suicide ideation at a 95.0% confidence level. The results of the analysis are presented in Table 12(a).

Table 12(a): Model summary on alcohol addiction and suicide ideation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.172 ^a	.029	.029	.73039	.029	39.859	1	1312	.000

a. Predictors: (Constant), Alcohol addiction

Source: Survey Data (2023).

The model summary correlation result is positive ($R=0.172$), and the R-square value is 0.029, which means that 2.9% of the change in suicide ideation is determined by alcohol addiction issues facing the student. The results of the coefficient are presented in Table 12 (b).

Table 12(b): Coefficients^a on alcohol addiction and suicide ideation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.664	.051		71.199	.000
	Alcohol addiction	.085	.013	.172	6.313	.000

a. Dependent Variable: Suicide Ideation

Source: Survey Data (2023).

The regression equation coefficient is written as:

$$y = 3.664 + 0.085x_5 \dots \dots \dots (3)$$

The regression beta coefficient results are ($\beta=0.085$, $p=0.001$), which shows that there is a significant positive coefficient between alcohol addiction correlate and suicide ideation. Based on the data, the second null hypothesis under the fifth correlate (alcohol addiction) is rejected ($p<0.05$), resulting in the conclusion that there is a significant positive relationship between alcohol addiction (fifth correlate) and suicide ideation amongst students in four public universities in Nyanza region.

A linear regression analysis was computed to check on the significant relationship between the sixth correlate (HIV/AIDS) and suicide ideation at a 95.0% confidence level. The results of the analysis are presented in Table 13(a).

Table 13(a): Model summary on HIV/AIDS on suicide ideation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.115 ^a	.013	.012	.73650	.013	17.529	1	1312	.000

a. Predictors: (Constant), HIV/AIDS

Source: Survey Data (2023).

The model summary correlations are positive ($R=0.115$) with an R-square value of 0.013, which implies that 1.3% change in suicide ideation is caused by HIV/AIDS. Further, the change statistics ($f=17.529$, $p=0.001$) show that there is linearity in the model. The coefficient results for the model are presented in Table 13(b).

Table 13(b): Coefficients^a on HIV/AIDS on suicide ideation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.796	.045		85.060	.000
	HIV/AIDS	.052	.012	.115	4.187	.000

a. Dependent Variable: Suicide Ideation

Source: Survey Data (2023).

17-19 year old students had the highest percentage of suicide ideation (5.1%) followed by 23-25 years old at (4.4%), the difference was not significant.

These findings contradict the findings of Oji, Ondieki and Ouko (2021), which revealed that there was a significant difference between age category and suicide ideation, with students above 28 years having the highest scores in suicide ideation. The study findings also contradict the findings in the study by Nyagwencha and Ojuade (2021), which found out that suicide behaviour was more common among those aged 20-22 compared to other age categories. In the current study, age was not a factor in relation to suicide ideation since students across different age categories exhibited suicidal thoughts. This could be attributed to the fact that students in all age categories experience stressful events at any given time in their lives. Koriath and Writer (2020) found out that when youths experience stress, they are likely to engage in suicide-related behaviours. This implies that students in any age category can have suicidal thoughts as long as they experience painful life events.

The second objective was to examine the correlates of suicide ideation. The findings revealed that sexual abuse was a predictor of suicide ideation. This finding agrees with the finding in a study conducted by Devries, Mak, Child, Falder, Bacchus, Astbury and Watts (2014), which revealed an association between childhood sexual abuse and suicide attempts as well as completed suicide. These results could be attributed to trauma or stress after sexual abuse experience. Sexual abuse causes trauma, and one reacts to the experience by dissociating (Brokke *et al.*, 2022).

The findings revealed that financial crisis is not a predictor of suicide ideation. The study findings contradict the findings by Turecki and Brent (2016), who found out that financial difficulties are a predictor of suicide.

The findings of this study revealed that romantic break-up is a predictor of suicide ideation. This finding is in agreement with the finding in a study conducted by Love, Nalbone, Hecker and Kathryn (2017), which revealed that romantic break up is a predictor of suicide attempts. The finding on this correlate could be attributed to depression and hopelessness as a result of romantic break up. According to Kahongeh (2019), university students perceive that to have a life is to have a partner. They, therefore, draw a lot of happiness and comfort from romantic relationships to the extent that if the relationship does not work, they become hopeless and resort to suicide.

This study found that alcohol addiction is a predictor of suicide ideation. The finding was in line with the finding in a study conducted by Wanyoike (2015), which revealed that drug abuse can cause suicidal behaviour among university students. The results of this study could be attributed to the stress levels of students in universities in the Nyanza region. Students abuse drugs so as to cope with the social stressors they are facing (Kabugi, 2019).

In line with HIV/AIDS, the study findings revealed that HIV/AIDS is a predictor of suicide ideation. This is in agreement with the study findings of Ophinni *et al.* (2020), which revealed that HIV/AIDS is associated with suicide ideation. The results in this study could be attributed to depression as a result of one's status as well as a lack of social

support. This is supported by the findings by Ophinni *et al.* (2020) that suicide ideation is associated with depression caused by chronic HIV/AIDS-related conditions, adverse effects of ART, as well as social pressures like stigma and difficulty in finding a partner. In relation to election (campus and presidential), the study findings revealed that election is a predictor of suicide ideation. These findings agree with the findings of Sommers (2018), which revealed that in the U.S.A., the rate of suicide was related to the election. The results of this study could be attributed to perceived economic and social distress from certain political regimes. Cantillon (2012) found that the election of a president from some parties is usually associated with economic and social distress, such as unemployment and poverty.

In relation to COVID-19, the results of this study revealed that COVID-19 is not a predictor of suicide ideation. This is in agreement with the study with results of a study conducted by Liu, Capaldi and Dopko (2021), which indicated that the prevalence of suicide ideation during the COVID-19 pandemic in 2020 was not different from the prevalence of suicide ideation before the pandemic (in the past 12 months). The results of this study could be attributed to reduced cases of COVID-19 infection as well as eradication of isolation, quarantine, and social distancing, which were a result of the pandemic.

The results of this study indicated that cyber suicide was a predictor of suicide ideation. This is in agreement with the study conducted by Herruzo, Sanchez-Guarnido, Pino, Lucena, Raya and Herruzo (2023), who found problematic internet use as a correlate of suicidal behaviour. The results of the current study could be attributed to the excessive use of the internet by students in the universities. They have access to pro-suicide websites which portray and spread suicide messages as well as methods about suicide and portray suicide as a desirable and acceptable way for one to solve life problems (Westerlund & Nilsson, 2022).

6. Conclusion and Recommendations

In line with the findings that there is no significant difference in student's age category in relation to suicide ideation, it can be concluded that suicidal thoughts are not related to the age category of the student. Any student of any age category can have suicidal thoughts. From the findings, it can be logically concluded that sexual abuse, romantic break up, alcohol addiction, HIV/AIDS, campus and general elections and cyber suicide are predictors of suicide ideation. The findings also indicated that there is no correlation between COVID-19 pandemic experience and suicide ideation among students. In conclusion, the financial crisis and COVID-19 are not predictors of suicide ideation.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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