



## Prevalence of Suicide Ideation among University Students: A Case of Nyanza Region, Kenya

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### Abstract

*Cases of completed suicide have been on the rise among university students in recent past. The study focused on the prevalence of suicide ideation among university students in Nyanza region with an aim of preventing ideation from reaching completion. The objective of the study was to determine the prevalence of suicide ideation among university students and to compare the prevalence of suicide ideation in relation to university and year of study. The study was guided by Three Step Theory of Suicide (3ST). Correlational research design was employed. Purposive sampling was used to select four public universities from Nyanza region. Stratified sampling was used to select undergraduate students and thereafter simple random sampling was used to select 1477 students with the guidance of sample size table by Cohen, Manion and Morrison. Data were collected using student questionnaire, interview schedule and existing counseling records and data were analyzed using the Statistical Package for Social Sciences (SPSS V20, 2023). Descriptive statistics including frequencies and percentages were generated and quantitative data were analyzed using chi square at .05 level of significance. The study findings indicated that suicide ideation is prevalent among university students (23.6%). The prevalence differs depending on the university ( $\chi^2=p<.05$ ) but the prevalence was not related to the year of study ( $p>.05$ ). The study recommends that university counselling department should create more awareness on the issue of suicide, its effects and how students can cope with challenges so as to prevent suicidal thoughts.*

**Keywords:** *Prevalence, Suicide ideation, Undergraduate Students, Year of study*

### INTRODUCTION

Suicide is death caused by self-directed injurious act with intent to die as a result of the behaviour (Klonsky, May & Saffer, 2016). Suicide ideation on the other hand is thought about suicide including suicide plan without suicide act (Khalid, 2012). According to World Health Organization (WHO), (2015), suicide has a global mortality rate of 16 per 100,000 which translate to 1 death every 40 seconds. Suicidal behaviour is a global cause of death worldwide with 800,000 deaths annually and it is estimated by the World Health Organization that the annual global standardized death rate is 11.4 per 100,000 with a projection that this will remain steady through 2030 (WHO 2013, 2014). In Canada, it is approximated that 4000 people die by suicide every year (Mental Health Commission of Canada, 2018). In the United States of America (USA), 36,909 suicide deaths were reported in 2011 which meant that someone would die from suicide after every 14.2 minutes. In Nepal, it is estimated that 10.33% of adolescents had attempted suicide (Pandey *et al*, 2019). 16.8% of prevalence of suicidality was also reported in South Africa (Kinyanda, Hoskins, Nakku, 2012). In Uganda, a study conducted by Kinyanda and colleagues (2012) revealed that 17.1% attempted suicide.

Kenya is ranked position 114 out of 175 countries with highest suicide rates in the world (Atallah, 2006-2017) Suicide is the second leading cause of death in those aged 10-29 years (National Centre for Injury Prevention and Control, 2006). Suicidal behaviours have been on the rise in institutions of higher learning (Wanyoike, 2015: Kabugi, 2019) and is among the concerns that universities have to deal with (Wanyoike, 2015). Suicide among university students has several impacts on survivors, educationists, institutions and parents (Kabugi, 2019). Apart from the long lasting psychological trauma on family, friends and relatives, it results to loss of economic productivity, premature deaths and great economic implications for the country because the youths are the future of the country. Data from the National Research Crime Centre (2019), reported three counties in Nyanza region among the top five leading counties in suicide attempts. Nyamira at 9.1% of the county average population. Homabay County at 4.0% and Migori at 2.8%. Suicide ideation is an important precursor to later attempted and completed suicide (Lewinsohn, Rohde & Seeley, 1996 in Arria *et al*, 2009). A person who displays suicidal ideation is predisposed to suicidal behaviour (Khalid, 2012) and therefore identification of suicidal ideation can be helpful in designing appropriate interventions and reducing the burden of the condition. Most studies on suicide have focused on adolescents and majorly in western countries (Poirier, 2017) in Canada, (Pandey *et al*, 2019) in



Nepal and (Misigo, 2021) in Kenya. Suicide ideation among university students has not been looked into especially in Nyanza region whose three counties were among the top five leading counties in suicide attempts, therefore this paper focused on the prevalence of suicide ideation in four universities in Nyanza region, that is, Maseno, Jaramogi Oginga Odinga, Kisii and Tom Mboya University.

### PURPOSE AND OBJECTIVES OF THE STUDY

The purpose of the study was to determine the prevalence of suicide ideation among university students in universities Nyanza region. To attain this purpose, the study was guided by the following objectives:

To determine the prevalence of suicide ideation among university students

To compare the prevalence of suicide ideation in relation to university and year of study.

### METHODOLOGY

This study was conducted in four public universities in Nyanza region. The study employed pragmatism philosophical assumption by Charles Pierce, William James and John Dewey. (Saunders, 2009). The study adopted a correlation research design to describe the association or relationship between variables (Blaike, 2003). The population of this study comprised of four universities in Nyanza region. That is; Maseno University, Jaramogi Oginga Odinga University, Kisii University, and Tom Mboya University. The study targeted undergraduate students in these universities. The sample size was established from the table developed by Cohen, Manion and Morrison (2000) totaling 1477 students. 377 students from Maseno, 370 from Jaramogi Oginga Odinga (JOOUST), 370 from Kisii and 360 from Tom Mboya (TMU). The study also targeted the university counselors in all the four universities. Purposive sampling was employed to select Nyanza region owing to the high numbers of suicidal attempts in that region (National Research Crime Centre, 2019) and also to select the four public universities in Nyanza region to be included in the study.

Stratified sampling was used to select undergraduate students into homogenous group (Cohen, Manion & Morrison, 2000). Simple random sampling was thereafter used to select 377 students from Maseno, 370 from Jaramogi Oginga Odinga (JOOUST), 370 from Kisii and 360 from Tom Mboya (TMU) totaling 1477 students. Purposive sampling was used to select one counselor from every university to be interviewed totaling 4. The research adopted Beck Scale for Suicide Ideation (BSSI) developed by Aaron Beck (1993) but the model used a likert scale. This is a self-report scale with items which evaluate suicidal thoughts and their intensity (Esfahani, Hashemi & Alavi, 2015). The study also used interview schedule for the counselors and existing counseling records. Quantitative data was analyzed using the Statistical Package for Social Sciences (SPSS V20) computer application and the qualitative data was analyzed using thematic analysis. Descriptive statistics including frequencies and percentages were used for analysis and inferential statistics including chi square was used at .05 level of significance to establish whether the prevalence rate of suicide ideation was related to the university or the year of study of the students.

### FINDINGS

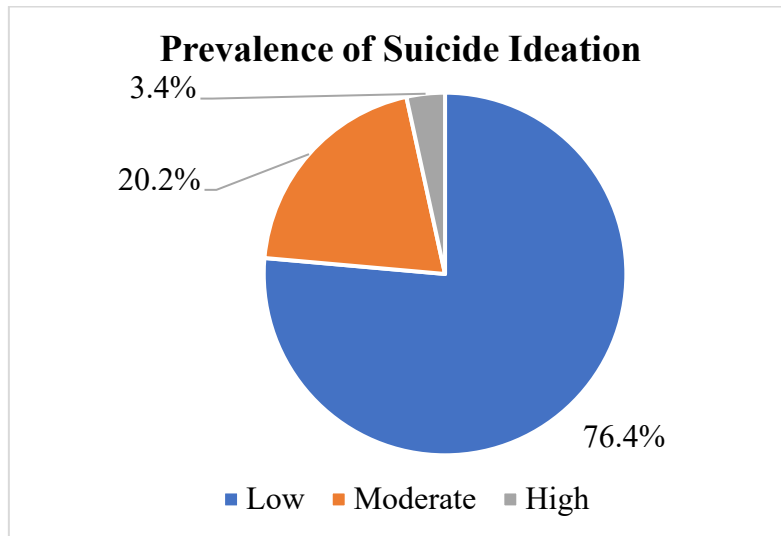
Two hypotheses were tested in this study;

**HO<sub>1</sub>:** There is no significant difference in prevalence of suicide ideation in relation to the universities in Nyanza region.

**HO<sub>2</sub>:** There is no significant difference in prevalence of suicide ideation in relation to the year of study

#### Prevalence of suicide ideation among university students in Nyanza Region

The researcher summed up the 13 students suicide ideation statements together to generate the prevalence rate which was the study dependent variable. The scoring of the prevalence rate was as follows; High (mean of 1.0 – 2.44), Medium (mean of 2.45-3.44) and Low (mean of 3.45 – 5.0). The result of analysis are presented in Figure 1.



**Figure 1** Prevalence of suicide ideation in public universities in Nyanza region  
Source: Data (2023)

The result show that prevalence of suicide ideation from the four public universities in Nyanza region as low for 76.4% of students, moderate for 20.2% of students and high for 3.4% of students. This is an indication that 23.6% of the university students in Nyanza region exhibit suicidal thoughts.

The responses from the interview schedule were as follows; university counselling department from two universities indicated that they receive suicidal clients more often meaning that the incidences of suicidal ideation are present while on the other hand, the counsellors from the other two universities indicated that their reception of suicidal clients is less often.

These results are in agreement with the study conducted by Wanyoike (2015) which revealed that the cases of suicidal behaviours are on the rise in Kenyan universities. A study on An Overview of the Causes of Suicide and Preventive Strategies in Kenyan Universities by Kabugi (2019) also found out that there is existence of suicidal behaviours among university students in Kenya. The results also agree with the study conducted by Oji, Ondieki and Ouko (2021) which indicated that the prevalence of suicide ideation was high among the university students in Nairobi County. The findings are also supported by the findings of Paula, Breguez, Machado and Meireles (2020) that suicide ideation is prevalent among the university students at 18.8%.

### Suicide Ideation Prevalence in Relation to University Variables University and Prevalence of Suicide Ideation

To establish whether there was similarity or difference between university and prevalence rate, a cross tabulation analysis was computed and results presented in Table 1

**Table 1** University and Prevalence of Suicide Ideation

	University		Suicide Ideation			Total
			Low	Moderate	High	
University	Maseno	Count	229	43	6	278
		% within university	82.4%	15.5%	2.2%	100.0%
	JOOST	Count	328	33	9	370
		% within university	88.6%	8.9%	2.4%	100.0%
	Kisii	Count	114	144	17	275
		% within university	41.5%	52.4%	6.2%	100.0%
		Count	333	45	13	391



	Tom Mboya	% within university	85.2%	11.5%	3.3%	100.0%
Total		Count	1004	265	45	1314
		% within university	76.4%	20.2%	3.4%	100.0%

Source: Data (2023)

Result show that for Maseno University, 82.4% of students reported low prevalence of suicide ideation, 15.5% had moderate level of suicide ideation and 2.2% were found to have high level of suicide ideation. For JOOUST, 88.6% had low level of suicide ideation, 8.9% had moderate level of suicide ideation and 2.4% had high level of suicide ideation. For Kisii, 41.5% of students had low level of suicide ideation, 52.4% had moderate suicide ideation and 6.2% had high level of suicide ideation. For Tom Mboya, 85.2% of students had low level of suicide ideation, 11.5% had moderate suicide ideation and 3.3% had high level of suicide ideation. In testing the first null hypothesis to establish whether the differences in suicide ideation levels were significant or not, Pearson chi square was computed and the results are presented in Table 2

Table 2 Chi-Square Tests for Prevalence of Suicide Ideation in Universities

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	247.071 <sup>a</sup>	6	.000
Likelihood Ratio	220.022	6	.000
Linear-by-Linear Association	6.759	1	.009
N of Valid Cases	1314		

Source: Data (2023)

The Pearson Chi square critical values are ( $\chi^2=12.592$ ,  $df=6$  &  $p=0.05$ ) which are lower than computed values ( $\chi^2=247.07$ ,  $df=6$  &  $p=0.001$ ) leading to the deduction that there exists significant difference in prevalence of suicide ideation among the four universities in Nyanza region and therefore the first hypothesis (**HO<sub>1</sub>**) which state that there is no significant difference in prevalence of suicide ideation in relation to the universities in Nyanza region is rejected.

### Student Year of Study and Prevalence of Suicide Ideation

A cross tabulation analysis was undertaken to establish the prevalence of suicide ideation based on the year of study by students .The results are presented in Table 3

Table 3 Student Year of Study and Prevalence of Suicide Ideation

			Suicide Ideation Categories			Total
			Low	Moderate	High	
Year of study	1	Count	276	77	16	369
		% within Year of study	74.8%	20.9%	4.3%	100.0%
	2	Count	255	86	10	351
		% within Year of study	72.6%	24.5%	2.8%	100.0%
	3	Count	261	60	11	332
		% within Year of study	78.6%	18.1%	3.3%	100.0%
	4	Count	212	42	8	262
		% within Year of study	80.9%	16.0%	3.1%	100.0%
Total		Count	1004	265	45	1314
		% within Year of study	76.4%	20.2%	3.4%	100.0%

Source: Data (2023)



The cross-tabulation result shows that suicide ideation was higher (4.3%) amongst first year students, followed by third year (3.3%), then fourth year (3.1%) and lastly second year (2.8%). To test the second null hypothesis in order to establish whether the above results were significant or not, Pearson chi square was computed and results given in Table 4.

**Table 4 Chi-Square Tests for Prevalence of Suicide Ideation based on Year of Study**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.339 <sup>a</sup>	6	.155
Likelihood Ratio	9.274	6	.159
Linear-by-Linear Association	4.346	1	.037
N of Valid Cases	1314		

**Source: Data (2023)**

The critical table values for chi square are ( $\chi^2=12.592$ ,  $df=6$  &  $p=0.05$ ) is higher than the computed chi square values ( $\chi^2=9.339$ ,  $df=6$  &  $p=0.155$ ) resulting to the conclusion that there is no significant difference ( $p>0.05$ ) in prevalence of suicide ideation in relation to year of study. This implies that the hypothesis **HO<sub>2</sub>** which states that there is no significant difference in prevalence of suicide ideation in relation to the year of study is accepted. The results from the interview schedule from two universities indicate that there is no particular year of study which is most affected with cases of suicidality while on the other hand one university counselling department indicated that year 3 and 4 are most affected while the other indicated that 2 and 3 year students were the most affected.

## DISCUSSION

The first objective of this study was to determine the prevalence of suicide ideation among university students in Nyanza region. The results for this particular objective indicated that 3.4% of university students exhibited high levels of suicide ideation while 20.2% exhibited moderate ideation. The university counselors also admitted that they receive suicidal clients which is an indication of students exhibiting suicidal thoughts. These results are supported by the findings of the study conducted by Ibrahim (2021) in Koley Universiti Poly-Tech Mara in Kuala Lumpur which indicated that 7% of university students had suicidal thoughts. This insinuates that suicidal ideation occurrence among the university students is real. The study findings is also supported by the results of the study which was conducted by Alfakeh, Balkhair, Alotaibi, Baothman, Alsolami, Alzahrani, Alsaeed and Sultan (2023) among the university students in Jeddah Saudi Arabia. 23.4% of students in Jeddah had thought of suicide in the past year. The findings of the current study could be attributed to stress among university students. According to Koriath and Writer (2020), when youths experience stress, they are likely to experience suicidal related behaviours. Students are faced with different stress levels which could be brought about by academics, peer pressure as well as transitioning from high school to the university in the case of first year students. A study conducted by Alfakeh et al (2023) found that when first years join campus, some of them have feelings of inadequacy which might cause harm to their mental health. Severe stress is associated with suicide ideation (Pramukti, Strong, Sitthimongkol, Setiawan, Pandin, Yen & Ko (2020). University students in Nyanza region could also be going through the same ordeal which led to 23.6% prevalence of suicide ideation among the undergraduate students.

In response to the second objective of the study which was to determine the prevalence of suicide ideation with respect to the university. The findings revealed that the prevalence of suicide ideation was different among the four universities in Nyanza region leading to the rejection of the null hypothesis. These findings agree with the findings of Nyagwencha and Ojuade (2021) which revealed a statistical difference in suicidal behaviour (ideation, plan and attempt) between students attending private and public universities. The difference in suicide ideation in relation to the university could be attributed to specific features and conditions in different geographical areas. Arafat, Singh and Singh (2024) found out that suicide rates are different depending with the geographical area. A study by Ramamurthy and Thilakan (2019) also reported significant regional differences in relation to suicide. Further research is however needed to determine differences in suicide ideation prevalence in different universities in Nyanza region.



In response to the objective which was to compare the prevalence of suicide ideation in relation to year of study, there was no difference in prevalence of suicide ideation in relation to the year of study. The null hypothesis which stated that there is no significant difference in prevalence of suicide ideation in relation to year of study was accepted. This is confirmed by the findings of the study conducted by Oji, Ondieki and Ouko (2021). In the current study, the results could be explained by the presence of stressors across the years of study. Youths portray suicide related behaviours when they experience stressful life events (Korioth & Writer, 2020). These stressors are experienced at any given time by anybody and therefore, the year of study one is in might not determine whether one experiences the stressful event or not. This could explain the reason as to why there was no difference in prevalence of suicide ideation in relation to the year of study.

## CONCLUSION AND RECOMMENDATIONS

From the study findings and discussions, the following conclusions were deduced. University students in Nyanza region exhibit suicidal thoughts. The prevalence of suicidal thoughts vary in different universities in Nyanza region since there was difference in prevalence of suicide ideation among the four universities in Nyanza region. On the other hand, any university student can have suicidal thoughts regardless of the year of study since there was no significant difference in prevalence of suicide ideation in relation to the year of study.

The study recommends that university counselling department should create more awareness on the issue of suicide, its effects and how students can cope with day to day challenges so as to prevent suicidal thoughts. Universities with high prevalence of suicide ideation should also sensitize students on the effects of suicide ideation to self, family.

This research can be done in universities in other regions and counties in order to establish the prevalence of suicide ideation among university students. Further research is needed to determine differences in suicide ideation prevalence in different universities in Nyanza region.

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