

Decision Making Styles and Resilience as Correlates of Suicidal Ideation Among Undergraduates

Chinyere Uzor¹, Harry Obi-Nwosu², Godwin C. E. Obidigbo^{3,} & Anthony Edoka⁴

1234 Department of Psychology Nnamdi Azikiwe University Awka

Corresponding Author: Chinyere Uzor. Email: chinnyuzor03@gmail.com

Abstract

The study investigated decision making styles and resilience as correlates of suicidal ideation. The study was a survey study, that employed correlational design, and Pearson product moment correlation coefficient was used in analysing the data. Participants were 203 undergraduate students who were drawn from selected departments of five faculties in Nnamdi Azikiwe University, Awka campus. They consisted of 95 (47 %) males and 108 (53%) females. Their age ranged from 18 - 29 years, with a mean age of 22, and standard deviation of 2.0. Suicidal ideation scale, decision making styles scale and resilience were used for collecting data. Two hypotheses were stated. The result showed that resilience correlated negatively with suicidal ideation at r = -.171, p < .05 level of significance, whereas decision making styles (self-confidence, evasiveness, and complacency) correlated positively with suicidal ideation at r = .167*, r = .298**, r = .302**, p < .05. Based on the findings, recommendations were made, implications of the study were also drawn and suggestions for further studies and conclusions were made.

Key Words: Decision Making Styles, Resilience, Suicidal Ideation.

Introduction

As each day goes by, the number of people harbouring suicidal thoughts are marginally increasing (Kennebeck et al., 2021; Lee et al., 2010). Some of these peoples have succeeded in executing it whereas some stopped at the mere thought of it (Gronvold, Aasland & Ekeberg, 2020). Arriving at the exact number of people that have indulged in suicidal ideation might be difficult in Africa because of the poor research in it, but in America, it is estimated that 10.6 million American adults have serious thoughts of ending their lives by suicide each year (Substance abuse and Mental Health Service Administration, 2018). This phenomenon is not uncommon amongst the youths. It is estimated that between 22% and 38% of adolescents have thought about suicide at some point in their lives, with between 12% and 26% reporting having had such thoughts in the previous year (Borges & Bromet, 2008). The situation is not different in Nigeria. National dailies have on a good number of times reported some suicidal attempts and accomplished suicides by Nigerians. This phenomenon is gradually creeping into our institutions of higher learning. In July 2018, one of the leading Newspapers in Nigeria reported that an undergraduate of the Niger Delta University, Wilberforce Island, Bayelsa State, Aduba Daniel, reportedly committed suicide by drinking a deadly insecticide known locally as 'Sniper'. (Ojoye 2018). To buttress its prevalence amongst students in Nigeria, Ogbe (2020), reported that Students top list as 42 Nigerians commit suicide in 6 months.

The news of any suicide by an undergraduate in Nigeria is always as usual greeted with sympathy without any serious proactive measures either by the government of the day or by researchers besieged all over the country to investigate for possible causes or ways to forestall future occurrence. It is then in the interest of this researcher to check for possible variables that can correlate with suicidal ideation amongst the undergraduate students in Nigerian, with a view of preventing future incidents of suicidal ideation. Some factors of interest have been identified to be investigated by the researcher, such factors are decision making style and resilience.

Suicidal ideation is simply thinking about planning suicide. Thoughts can range from a quick consideration to a detailed plan. Some people may experience suicidal thoughts once in their lifetime, while others may experience suicidal thoughts on a routine, even daily basis for a short or long period. Suicidal thoughts are common, and many experience them when they are under increased levels of stress or experiencing trauma. Most people who experience suicidal thoughts do not end their life, although some may make suicide attempts. According to National Health youth Mental Health foundation (2009), the term suicidal ideation refers to thoughts that life isn't worth living, ranging in intensity from fleeting thoughts through to concrete, well thought-out plans for killing oneself, or a complete preoccupation with self-destruction. Strictly speaking, suicidal ideation means wanting to take your own life or thinking about suicide (Purse, 2020). Suicidal ideation, that is, the thoughts and cognitions one has about suicidal behaviours and intent, may be considered a primary marker for the risk of more serious suicidal behaviours (Reynold, 1991).

Another variable of interest is Decision making style, and according to Dumler and Skinner (2007) quoted in Al Shra'ah (2015), it is a choice among competing alternatives and the implementation of the chosen alternative. Decision making style is also seen as the thought process of selecting a logical choice from the available options while trying to make a good decision. For effective decision making, a person must be able to forecast the outcome of each option as well, and based on all these items, determine which option is the best for that situation. Decision making is a process of making a choice from a few alternatives to achieve a desired result (Eisenfuhr, 2011) quoted in Al Shra'ah (2015). The term decision style is the way a person uses information to formulate a decision (Rowe & Mason, 1987) quoted in Al Shra'ah(2015). Harren (1979) quoted in Al Shra'ah(2015) revealed that decision making style reflects an individual characteristic for perceiving and responding to a decision making process. Decision-making can also be regarded as a problem-solving activity yielding a solution deemed to be optimal, or at least satisfactory.

Further variable of interest to the researcher is resilience, and it is defined as the ability to cope with a crisis mentally or emotionally or to return to pre-crisis status swiftly. While resilience has been defined as resistance to illness, adaptation, and thriving, the ability to bounce back or recover from stress is closest to its original meaning ((Smith et al., 2008). Psychologists define resilience as the process of adapting well in the face of adversity. trauma, tragedy, threats, or significant sources of stress — such as family and relationship problems, serious health problems, or workplace and financial stressors (American Psychological Association, 2020). As much as resilience involves "bouncing back" from these difficult experiences, it can also involve profound personal growth. Resilience exists when the person uses "mental processes and behaviours in promoting personal assets and protecting self from the potential negative effects of stressors". In simpler terms resilience exists in people who develop psychological and behavioural capabilities that allow them to remain calm during crises/chaos and to move on from the incident without long-term negative consequences. Resilience is generally thought of as a "positive adaptation" after a stressful or adverse situation. When a person is "bombarded by daily stress, it disrupts their internal and external sense of balance, presenting challenges as well as opportunities." However, the routine stressors of daily life can have positive impacts which promote resilience. Resilience is also seen as a process to harness resources to sustain well -being (Panter - Brick & Leckman, 2013). Resilience does not mean the person does not feel the intensity of the event or problem. Instead, it just means that they have found a pretty good way of dealing with it more quickly than others (Cohen, 2018). Being resilient does not mean that a person will not have trouble or distress. People who have suffered major adversity or trauma in their lives commonly experience emotional pain and stress. In fact, the road to resilience is likely to involve considerable emotional distress. While certain factors might make some individuals more resilient than others, resilience is not necessarily a personality trait that only some people possess. On the contrary, resilience involves behaviours, thoughts, and actions that anyone can learn and develop (American Psychological Association, 2020). The ability to learn resilience is one reason research has shown that resilience is ordinary, not extraordinary.

Statement of the problem

Suicide is a leading cause of death and a complex clinical outcome (Cha et al., 2017). According to World Health Organization (2017), each year, approximately 800,000 people die by suicide worldwide. Cha et el, (2017) say whereas suicide is a leading cause of death across all age groups, suicidal thoughts and behaviours among youth warrant particular concern for several reasons. First, the sharpest increase in the number of suicide deaths throughout the life span occurs between early adolescence and young adulthood (WHO. 2017). Secondly, suicide ranks higher as a cause of death during youth compared with other age groups. It is the second leading cause of death during childhood and adolescence, whereas it is the tenth leading cause of death among all age groups (CDC, 2017). Thirdly, many people who have ever considered or attempted suicide in their life first did so during their youth, as the lifetime age of onset for suicidal ideation and suicide attempt typically occurs before the mid-20s (Kessler, Borges, & Walters, 1999). Finally, suicide death is preventable, with adolescence presenting a key prevention opportunity resulting in many more years of life potentially saved. The above claim is a global estimate of suicide. In Africa and specifically in Nigeria, the case is not different. The increase in the number of suicides reported in our institution of higher learning in Nigeria is on the increase, and the evidence is limpid (Ojoye 2018; Ogbe, 2020). What are those factors that can lead to suicidal ideation, and eventually to the actual committing of suicide? Can suicidal ideation be prevented, thereby forestalling suicide?

Some variables have been implicated as possible reasons for student's suicidal ideation, such as stress, depression, poor family background, negligence from significant others. There might be other variables that have been neglected which when carefully considered can give a clue to why undergraduates harbour suicidal ideation. However, this study focus on two variables to see if they will correlate either positively or negatively with suicidal ideation, and the variables are – decision making style and resilience.

Hypotheses

- i. Decision making styles will correlate positively with suicidal ideation.
- ii. Resilience will correlate negatively with suicidal ideation.

Method

Participants

A total number of 203 Nnamdi Azikiwe University undergraduate students participated in this study. Their age ranged from 18-29 years, and *SD* of 2.0 with a mean age of 22. The number of males was 95 (47%), and the number of females was 108(53%). Five faculties were selected from the entire faculties in Unizik, and from these five faculties, five departments were in turn selected. A probabilistic sampling method was employed, precisely simple random sampling technique. The use of the probabilistic sampling technique gave equal opportunity to all the faculties, departments, and levels.

Instruments

Three instruments were used in the study. The instruments include:

Suicidal ideation (SIS)

The suicide ideation scale developed by Rudd (1989) is a 10-item scale measuring the severity of suicide ideation. The SIS was designed to quantify the intensity of current conscious suicidal intent by scaling various dimensions of self-destructive thoughts or wishes. Suicidal ideation also encompasses suicidal threat that have been expressed in overt behaviour or verbalized to others. The scale utilizes five-point Likert scale. With responses ranging from 'never' (scored as 1) to always (scored as 5). Full scale scores are calculated by summing up the values of the responses. Possible full-scale scores ranges from a low 10 (indicating no suicide ideation) to a high 50 (indication high level of suicide ideation). The suicides ideation scale has been found to correlate moderately with measure of depression (r = .55, p < .001) and hopelessness (r = .49, p < .001), providing evidence for

6

its construct validity. Rudd (1989) reported a Cronbach alpha of. 86. A Cronbach alpha coefficient of .85 was obtained for this study.

Decision Making Questionnaire (DMQ)

These thirty (30) items scale was used to measure students' decision-making styles. Decision making questionnaire was developed by Mann et al. (1989). It is designed to assess five subscales of decision-making styles. Items (1-6) measure self-confidence, items (7-12) measure vigilance, Items (13-16) measure panic, items (17-22) measure evasiveness and items (23-30) measure complacency. The thirty (30) items were reversed scored, so that a higher score represents a high level of the respective subscale. The scoring was done on four (4) point scale ranging from 1 = "always to 5 = never", indicating the extent to which an item applies to a participant. Sample items of decision-making questionnaire (DMQ), include "I feel confident about my ability to make decision", and "when I have to make a decision, I wait a long time before starting to think about it". Mann et al. (1989) reported a Cronbach Alpha of self-confidence 0.63, vigilance 0.55, panic 0.64, evasiveness 0.65, and complacency 0.90. The present study Cronbach Alphas of sub scales: self-confidence .619, vigilance .722, panic .758, evasiveness .813, and complacency .74.

Brief Resilience Scale (BRS)

The Brief Resilience Scale (BRS) was developed by Smith et al (2008). BRS contains 6 items: Items 1, 3, and 5 are positively worded, and items 2, 4, and 6 are negatively worded. The BRS is scored by reverse coding items 2, 4, and 6. The BRS contains such questions as 'I tend to bounce back quickly after hard times' and 'I have a hard time making it through stressful events. The scale utilizes five-point Likert scale. With responses ranging from 'strongly disagree' (scored as 1) to strongly agree (scored as 5).Internal consistency was good was good as reported by Smith et al (2008), with Cronbach's alpha ranging from .80–.91(Samples 1–4=.84, .87, .80, .91, respectively).It was also reported by the developers

that BRS was positively correlated with the resilience measures, optimism, and purpose in life, and negatively correlated with pessimism and alexithymia. In addition, it was positively correlated with social support and negatively correlated with negative interactions. Finally, it was consistently positively correlated with active coping and positive reframing and negatively correlated with behavioural disengagement, denial, and self-blame. The Cronbach alpha coefficient for the present study was . 87.

Procedure

The study adopted sample random sampling to select the Five faculties and department (Arts, Social Sciences, Management Sciences, Physical Sciences and Engineering) and five department (Philosophy, psychology, Marketing, Electrical Engineering, Geology) where the participants were selected. After randomly selecting the departments', accidental sampling technique was used in selecting the participants in each department and only the students that consented to participate in the survey after rapport were administered the study questionnaire. Course representatives in the selected departments were helpful to the researcher and the students were assured of the confidentiality of whatever response they will provide. A total number of 240 questionnaires were distributed and, 225 questionnaires were returned, and out of the returned questionnaires 203 were eventually used for this study, others were discarded for improper completion of the questionnaire.

Design and Statistics

The study was survey research; correlational design was adopted for the study, while Pearson product moment correlation coefficient was used in analysing the data.

Results

The results of the study are presented in the table below.

Table 1: Summary table of Zero Order Correlation Coefficient Matrix of Resilience and Decision-making style as correlates of Suicidal Ideation.

S/N	Variable	1	2	3	4	5	6	7
1	SI	1						
2	RES	171*	1					
3	SC	. 167*	.039	1				
4	VIG	201**	.046	.020	1			
5	PAN	.014	135	260**	059	1		
6	EVA	.298**	126	411**	212**	.224**	1	
7	COM	.302**	138*	.079	140*	.212**	.638**	1

**P<. 01, *P<.05 SI = SUICIDAL IDEATION, RES = RESILIENCE, SC = SELF CONFIDENCE, VIG = VIGILANCE, PAN = PANIC, EVA = EVASIVENESS, COM = COMPLACENCY

Results from Table 1 above showed that a negative correlation was found between resilience and suicidal ideation (r= - .171*). This means that an increase in resilience will be associated with decrease in suicidal ideation. The result also showed that some subscales of decision-making style (self-confidence, evasiveness and complacency) correlated positively with suicidal ideation (r = .167*, r = .298**, r = .302**). The implication is that an increase in those subscales of decision-making style will be associated with increase in suicidal ideation. Another subscale of decision-making style (vigilance) showed a negative correlation with suicidal ideation (r = - 201**). This depicts that an increase in vigilance will be associated with decrease in suicidal ideation.

Summary Of Findings

1. Resilience correlated negatively with suicidal ideation.

2. Decision making style (self- confidence, evasiveness and complacency) correlated positively with suicidal ideation.

Discussion

The study investigated resilience and decision-making style as correlates of suicidal ideation. Two hypotheses were tested, and the results of the analysis were discussed.

The first finding from the analysis showed that a negative correlation was found between resilience and suicidal ideation (r = -.171*). This means that an increase in resilience will be associated with decrease in suicidal ideation.

The result collaborated the work of Kamble (2015), who published research tagged 'Resilience, Suicidal Ideation, Depression and Adolescents'. Seventy participants (35 male, 35 female), age ranged from 17 - 21 participated in the study. Results revealed that there is significant negative correlation found between resilience and suicidal ideation, negative significance between resilience and depression and positive correlation between suicidal ideation and depression. Significant gender difference was found on resilience but surprisingly no gender difference was found on suicidal ideation and depression among adolescents.

Again, the result of the first hypothesis was equally seen to collaborate the findings of Izadinia et al., (2010), who conducted a work titled 'A study of relationship between suicidal ideas, depression, anxiety, resiliency, daily stresses and mental health among Tehran university students. 265 students of Tehran University were studied. They were asked to answer the Beck's depression and anxiety, suicidal ideation, mental health, daily stresses and resiliency questionnaires. Results revealed that Suicidal ideations had a significant and negative relationship with resiliency. Anxiety, depression, mental health and daily stresses had a positive relationship with suicidal ideations. Regression analysis revealed that depression had the most contribution in predicting suicidal ideations while anxiety, mental health, Resiliency, and daily stresses were the next contributing factors, respectively.

The second finding of this work showed that some subscales of decision-making style (self-confidence, evasiveness and complacency) correlated positively with suicidal ideation (r = .167*, r = .298**, r = .302**). The implication is that an increase in those subscales of decision-making style will be associated with increase in suicidal ideation.

The result collaborated to some good extent the work of Bridge et al., (2012) which revealed that suicide attempters performed significantly worse on the Iowa Gambling Task than comparison subjects. Self-confidence, evasiveness and complacency can impair our decision, thereby increasing the likelihood of suicidal ideation.

Again, Jollantet al., (2005) conducted a research titled 'Impaired decision making in suicide attempters'. The authors used the Iowa Gambling Task to investigate patients with a history of violent (N=32) or nonviolent (N=37) suicidal behaviour, patients suffering from affective disorders with no history of suicidal behaviour (N=25), and healthy comparison subjects (N=82). Patients were assessed when they were not suffering from a current axis I disorder. The authors also assessed the correlation of Iowa Gambling Task performance with psychometric measures of impulsivity, hostility, anger, aggression, and emotional instability. Their findings revealed that impaired decision making, possibly due to emotional dysfunction, may be a neuropsychological risk factor for suicidal behaviour. This also collaborated the second finding of this work.

Furthermore, the second findings collaborated the work of Ackerman et al., (2015), who conducted a research captioned 'Risk – Sensitive Decision – Making Deficit in Adolescent Suicide Attempters'. The researchers assessed decision-making in 14 adolescent suicide attempters and 14 non-attempter comparison subjects, ages 15–19, using the Cambridge Gambling Task (CGT). Each participant was also administered a diagnostic interview (Mini-International Neuropsychiatric Interview [MINI]), structured suicide severity measures, and a brief intelligence quotient (IQ) measure. After controlling for gender and IQ differences, suicide attempters displayed an elevated risk-taking propensity on the CGT relative to comparison subjects, such that they were more willing to take a large risk with their bank of points, a decision-making style that proves disadvantageous over time. No group differences in the latency or accuracy of decision-making were observed.

Implications of the Study

The findings of the study implied that increase in resilience will result in decrease in suicidal ideation and vice versa. The result showed also that increase in poor decision-making styles will result to increase in suicidal ideation and vice versa. The study has both theoretical and practical implications.

Theoretically, despite the fact that a lot of past studies have been explicit on the possible variables that can correlate either positively or negatively with suicidal ideation, this study has thrown more light on some other variables like resilience and decision-making style. Hence, the findings of this study added to the emerging body of research on possible factors that can correlate either positively or negatively with suicidal ideation.

Practically, the findings have implications for institutions, families, and policy makers. Since resilience correlated negatively with suicidal ideation, institutions and families should encourage their children and students respectively to inculcate this variable.

Finally, since impaired decision-making style correlated positively with suicidal ideation, students should be encouraged to shun certain variables that impede on their decision-making capacity.

Recommendations

From the findings of the study, the following recommendations were made:

- Research efforts should focus in-depth on this issue of suicidal ideation and those variables that can correlate with suicidal ideation.
- School managements should institute biannual workshops on suicide and the related to forestall our youths from indulging in it.
- Researchers in suicide and the related should not fail to make their findings open to the
 public through media or journals, as this will help to educate the public more on suicide
 and the related.
- Higher institutions authorities/management should create a hotline where students should be free to seek for help when they feel endangered as a result of suicidal ideation.

 School management are also encouraged to conduct socialization programs like games and symposium for students as this will help in discouraging students from harbouring suicidal ideation.

• The present research should be replicated, keeping its limitations in view to test accuracy of the findings or the research can be conducted in other settings to compare results gotten from other environments with the present study results.

Limitations of the Study

Some of the limitations encountered in this study, which can influence the outcome of the present study include:

- The sample size of this study might be considered small, and this may limit the generalization of the result, thus future study should apply a more representative sample of the population.
- The research was restricted to only one university; results from similar investigation, in universities in other regions of Nigeria may or may not confirm the present findings.
 - Finance was a major limitation of the study. Lack of fund restricted the researcher to conduct the research only in one university. The findings from other State in Nigeria may or may not confirm the present results.

Suggestions for the Further Study

Researchers who are interested in replicating or conducting a similar study in future should consider the limitations of this present study and take caution to obtain a generalizable result for the study. Therefore, it is recommended that more research should be done with a larger number of samples to have an in-depth understanding of these constructs.

Studies should be widened beyond the scope of this study; thus, this research should be replicated in other areas like industries, public sectors, banks and among adults. It is also advised that researchers should find a way of persuading students to make themselves

available in research of this nature as the findings will help the public know the protective as well as risks factors of suicidal ideation.

Conclusion

Suicidal ideation is a global menace that fast constitutes great distress to families. And hardly people commit suicide without first ideating about it. The present study investigated resilience and decision-making style as correlates of suicidal ideation. Two hundred and three (203) participants from Nnamdi Azikiwe University Awka participated in the study. Three instruments were used in the study: Suicidal Ideation Scale (SIS) by Rudd (1989), Brief Resilience scale (BRS) by Smith et al (2008) and Decision-making questionnaire (DMQ) by Mann et al. (1989).

The researcher tested two hypotheses in this study. The analysis of the data collected showed revealed that resilience correlated negatively with suicidal ideation. The second finding showed that decision making styles (self – confidence, panic and complacency) correlated positively with suicidal ideation. The above result has shown the importance of resilience and decision-making styles as possible and important variables to consider in helping people curb suicidal ideation.

Finally, it is hoped that this research findings will encourage researchers to explore other possible correlates of suicidal ideation as to help those in danger of ideating which may lead to suicide.

REFERENCES

- Al Shra'ah, A. E. (2015). The Impact of Decision-Making Styles on Organizational Learning: An Empirical Study on the Public Manufacturing Companies In Jordan. *International Journal of Business and Social Science* 6, (4). 34-40.
- Ackerman, J. P., McBee-Strayer, S. M., Mendoza, K., Stevens, J., Sheftall, A. H., Campo, J. V., & Bridge, J. A. (2015). Risk-sensitive decision-making deficit in adolescent suicide attempters. *Journal of child and adolescent psychopharmacology*, *25*(2),109–113. https://doi.org/10.1089/cap.2014.0041
- American Psychological Association. (2020, September, 19). *Resilience*.https://www.apa.org/topics/resilience.
- Bridge, J. A., McBee-Strayer, S. M., Cannon, E. A., Sheftall, A. H., Reynolds, B., Campo, J. V., Pajer, K. A., Barbe, R. P., & Brent, D. A. (2012). Impaired decision making in adolescent suicide attempters. *Journal of the American Academy of Child and Adolescent Psychiatry*, *51*(4), 394–403. https://doi.org/10.1016/j.jaac.2012.01.002

- Center for Disease Control and Prevention (CDC). (2019, October, 12). Web based Injury Statistics Query and Reporting System [Data file]. https://www.cdc.gov/injury/wisqars/fatal_injury_reports.html
- Cha, C. B., Franz, P. J., Guzm, E. M., Glenn, C. R., Kleiman, E. M., & Nock, MK. (2017). Annual Research Review: Suicide among youth Epidemiology, (potential) Etiology, and treatment. *Journal of Child Psychology and Psychiatry*. doi:10.1111/jcpp.12831
- Cohen, H. (2018). What is Resilience? *Psych Central*. Retrieved from https://psychcentral.com/lib/what-is-resilience/.
- Daily Trust. (2020). Students top list as 42 Nigerians commit suicide in 6 Months. Retrieved from https://www.dailytrust.com.ng/students-Top-list-as-42-nigerians-commit-suicide-in-6-months.html.
- Hem, E., Gronvold, O. G., Aasland, O.G & Ekeberg, O. (2020). The Prevalence of suicidal ideation and suicidal attempts among Norwegian physicians. Results from a cross-sectional survey of a nationwide sample. European Psychiatry. (15) 3. https://www.cambridge.org/core/journals/european-psychiatry/article/prevalence-of-suicidal-ideation-and-suicidal-attempts-among-norwegian-physicians-results-from-a-crosssectional-survey-of-a-nationwide-sample/F928551D86B84453AE75D3.
- Izadinia, N., Amiri, M., Jahromi, R.G & Hamidi, S. (2010). A study of Relationship between suicidal ideas, depression, anxiety, resiliency, Daily stresses and mental health among Tehran University Students. Procedia Social and Behavioural sciences. 5, 1615 1619.
- Jollant, F., Bellivier, F., Leboyer, M., Astruc, B., Torres, S., Verdier, R., Castelnau, D., Malafosse, A., &Courtet, P. (2005). Impaired decision making in suicide attempters. *The American journal of psychiatry*, 162(2), 304–310.
- Kamble, R. (2015). Resilience, suicidal ideation, depression and Adolescent. *International Journal of Education and psychological Research*. 4. (3).
- Kenebeck, S., Bonin, L., Brent, D., Blake, D., & Solomon, (2021). Suicidal ideation and Behaviour in children and Adolescents: Evaluation and management. *Wolters kluwerhttps://www.uptodate.com/contents/suicidal-ideation-and-behavior-in-children-and-adolescents-evaluation-and-management?topicRef=1708&source=see link.*
- Kessler, R.C., Borges, G., & Walters, E.E. (1999). Prevalence of and risk factors for lifetime suicide attempts in the National Comorbidity Survey. Archives of General Psychiatry, 56, 617–626.

- Lee, J. I., Lee, M. B., Liao, S. C., Chang, C. M., Sung, S. C., Chiang, H. C., & Tai, C. W. (2010). Prevalence of suicidal ideation and associated risk factors in the general population. *Journal of the Formosan Medical Association = Taiwan yizhi*, 109(2), 138–147.
- Mann, L., Harmoni, R. & Power, C. (1989). Adolescent decision making, the development of competence. *Journal of Adolescence*, *12*, 265-278.
- Ogbe,P.A. (2020, September 10). 264 Nigerians commit suicide in four years. Daily Trust Newspaper. https://dailytrust.com/re-264-nigerians-commit-suicide-in-four-years
- Ojoye, T. (2018, July, 10). Worries, as more Nigerian undergraduates commit suicide. *Punch news Paper*. https://punchng.com/worries-as-more nigerian-undergraduates-commit-suicide/.
- Panther Brick, C., &Leckman, J. F. (2013). Editorial Commentary: Resilience in child development interconnected pathways to wellbeing. *The Journal of Child psychology and psychiatry*. 54.
- Purse, M. (2020). What Is Suicidal Ideation? A Look at Dangerous Thought Patterns. https://www.verywellmind.com/suicidal-Ideation-380609
- Reynolds, W. M. (1991) Psychometric Characteristics of the Adult Suicidal Ideation Questionnaire in College Students, Journal of Personality Assessment, 56 (2).
- Smith, B.W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The Brief resilience scale: Assessing the ability to bounce back. *International journal of behavioural medicine*, 15, (3) 194-200.
- Substance Abuse and Mental Health Services Administration. (2018). Key Substance use and mental health indicators in the United States: Results From the 2017 National Survey on Drug Use and Health. https://www.samhsa.gov/data/report/2017 nsuduh annual national report
- World Health Organization (WHO). (2017). Disease and injury country MortalityEstimates, 2000–2015 [Data files]. http://www.who.int/healthinfo/global_burden_disease/estimates/en/index1. html.