

PERCEIVED-RISK AND PROTECTIVE FACTORS IN SUICIDAL IDEATION AND ATTEMPT AMONG STUDENTS IN THE FEDERAL POLYTECHNIC OFFA KWARA STATE NIGERIA

ABSTRACT

Background Suicide usually occurs in response to a situation that one views overwhelming. Nigerian university students encounter diverse economic, financial, social, and psychological challenges which could become overwhelming for them. Risk and protective factors give a clear view and targets for intervention in both individuals and communities;

Objective: The broad objective of the study was to investigate the perceived risk and protective factors of suicidal ideation and attempt among students in the Federal Polytechnic Offa

Methods A descriptive cross-sectional survey was conducted using a six-stage sampling technique, a total of 236 respondents were selected. Data on knowledge was analyzed using 18-point knowledge scale, a score of ≥ 11 was classified as a good knowledge and a score of ≤ 10 was classified as having poor knowledge. Data on perception was equally analyzed using 22 point perception scale, a score of ≥ 11 was classified as a good perception and a score of ≤ 10 was classified as having poor perception. Lastly, data on prevalence was analyzed using a four-point scale. A total mean score was estimated for each respondent. A mean score of 2.5 to 4.0 was classified as a high prevalence while a mean scores below 2.5 was considered a low prevalence. Data were analyzed using descriptive statistics and Chi-square test at $p < 0.05$.

Results Ages of the respondents ranged from 15-30 years with a mean of 21.2 ± 2.8 years. About (50.4%) of the respondents were within the age of 15-19 years and 53.4% were females. Moreover, 86.4% stated that "Relationship Break ups, shame, loss, defeat, humiliation or threat between students and loved ones", "85.6% identified Academic failures" and 83.1% identified Experiences from sexual violence or abuses as common risk factors of suicidal ideation and attempt.

Conclusion *When the risk factors are decreased, the tendency to have a thought or attempt suicide is generally decreased and increasing protective factors generally also decreases risk, therefore an holistic and multi-sectoral strategies that strengthen protective factors such as, resilience skills that increase awareness of reasons for living and problem-solving capabilities in individuals as well as promoting the development of supportive family and school environments are recommended.*

Keywords:

Suicidal Ideation, Suicidal Attempt, Risk factors, Protective factors

UNDER PEER REVIEW

Introduction:

At different times in people's life, different people are faced with varying life challenges. These challenges may seem overwhelming, while some survive from these challenges; others contemplate suicide as a way of escape. There have been studies that have shown suicide as the number two cause of death among individuals between the ages of 18 to 35 in the developed countries of the world (NOCK, 2008). Suicidal ideation and attempts among adolescents in a country like the United States have been reported and recognized as a public health problem (Stone, 2015).

Understanding the risk and protective factors help to identify the critical role in the prevention of suicide for both individuals and communities. Risk factors are the features and characteristics that make it more likely that individuals will consider, attempt, or die by suicide. Protective factors are characteristics that make it less likely that individuals will consider, attempt, or die by suicide. Risk factors are not exactly warning signs, major risk factors include prior suicide attempt(s), mood disorders, substance abuse, and access to lethal means. Major protective factors include effective mental health care, connectedness, problem-solving skills, and contacts with caregivers. Risk and protective factors give a clear view and targets for intervention in both individuals and communities: When the risk factors are decreased, the tendency to have a thought or attempt suicide is generally decreased and increasing protective factors generally also decreases risk. There are variances in the risk and protective factors between individuals and across different settings. Efforts should begin with a strategic planning process that among other goals, identifies and targets specific risk and protective factors for intervention during suicidal prevention programmes. Usually, young people are commonly those with high prevalence of Suicidal ideation and attempt, this is influenced by a number of risk factors such as anxiety, hopelessness, depression, and stress) and also protective factors (coping, social support, and self-esteem).

1.2 Statement of Problem

Suicide is the third leading cause of death among young people aged 15-44 years, and ranks second for adolescents between ages 15 and 19 years old (WHO, 2014). Under an ideal and logical setting, students should be made to study under an enabling and conducive environment without unnecessary stress. A good and enabling environment is the one that promotes overall health and wellbeing of the students. It constitutes of a condition devoid of economic, financial,

social, and psychological problems. This, however apparently is not the case with students in Nigerian higher institutions.

A key identified problem and driver for such alarming suicidal behaviour is the poor resilience skills and poor problem solving skills these students possess when they are faced with some seemingly overwhelming situations and challenges. Suicide affects all groups, but some are at higher risk than others, this could be attributed to differences in the threshold of the resilience and problem solving skills possessed by these young people, while some are able to exercise these self-protection skills, others result into suicide as a way out. Examining and understanding the predictors of suicidal behavior is vital in combating the crisis of suicide in young people. Suicide poses an unbearable social, economics and psychological effects in most societies of the world. (Nasrin, Mohsen, Reza and Shabnam, 2010).

Research Objectives

The broad objective of the study was to investigate the perceived risk and protective factors of suicidal ideation and attempt among students in the Federal Polytechnic Offa

The specific objectives of the study were to:

1. Assess the level of knowledge of suicidal ideation and attempt among students of the Federal Polytechnic Offa
2. Determine the perception of students of the Federal Polytechnic Offa on suicidal ideation and attempt.
3. Assess the perceived risk factors influencing suicidal ideation and attempt among students in the Federal Polytechnic Offa
4. Examine the perceived protective factors of suicidal ideation and attempt among students of the Federal Polytechnic Offa

Materials and Methods:

Ethical Consideration

Prior to the commencement of the study, ethics approval was sought and obtained in a written format from the Kwara State Ministry of Health Research Ethical Review Committee with reference number MOH/KS/EU/777/486. The committee ensured that the research work

conforms to the generally accepted scientific principles and international ethical guideline required in human subject research and to review the ethical components of the study.

The nature and purpose of the study was explained to the participants with emphasis on confidentiality, privacy and anonymity of the information provided. Any form of identification will not be included in the questionnaire. The information gathered from the respondents was stored in the computer package for analysis by the principal investigator and with no access to unauthorized persons.

Study Design

The study was descriptive cross-sectional in nature. It was designed to find out the perceived-risk and protective factors of suicidal ideation and attempt among students in the Federal Polytechnic Offa.

Study Population

For the purpose of this study, both male and female students in the Federal Polytechnic Offa who are within the age range of 15-44 years and were currently studying at the time of the data collection were recruited for this study.

Study Area

The study area selected for this study is the Federal Polytechnic Offa, Offa, Kwara State. It was established in 1992 during the administration of General Ibrahim Babangida, the Polytechnic offers National Diploma and Higher National Diploma courses. The Polytechnic as at the time of the study has 21 courses offered at National Diploma (ND) level, 23 at Higher National Diploma (HND) level and Pre-ND programmes in Arts and Science. The current student population is about 14,812 students at present. The Polytechnic Mini Campus is located at the southern end of the town along Offa-Osogbo Way, while the Main Campus is located along Offa-Ojoku Road, Offa. This study site was selected based on the observed prevalence of suicidal attempt in 2019 when there was several reported cases of students involved in suicidal attempt at the general hospital Offa. The study area predominantly contains the students, staffs and other members of the school community.

Determination of Sample Size

In a previous study on the prevalence and correlates of suicidal behaviour among young people in Nigeria, Prevalence of suicidal ideation and attempt were 20% and 12% respectively (Omigbodun, Dogra, Esan & Adedokun 2008). The prevalence of 20% suicidal ideation was used on the Leslie Kish's formula to calculate for the sample size for this study.

$$n = \frac{z^2 \times (P \times 1 - P)}{d^2}$$

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

N= Minimum sample size

Z= Standard normal deviation set at 1.96 normal interval

p= Proportion estimated to be obtained in the target population {suicidal ideation of 20% prevalence).

q= Proportions that does not have the characteristics being investigated

$$(q=1-p) \quad q= 1 - 0.20= 0.80$$

d= Degree of accuracy set at 0.05 (precision set at 5% significant)

Therefore, the sample size $N = \frac{(1.96)^2 \times 0.20 \times 0.80}{0.05^2}$

$$N = \frac{0.589824}{0.0025}$$

$$N = 235.9296$$

Sample size was calculated to be 236

A non-response rate of 10% of 236 = 23.6 = 24

Therefore, 24 was added to the sample size calculated to make the sample size 259 in order to address issues of incomplete response.

Sampling Technique

For the purpose of this study, a multistage sampling technique was used to select the participants eligibility for the study.

Stage 1: The 6 faculties in the Polytechnic was stratified into the two Science and Art arms of the school.

Stage 2: Simple Random sampling was used to select 2 faculties each out of the 6 faculties in both the Science and Art arms of the school.

Stage 3: Simple Random sampling was used to select 2 out of 4 departments in each of the selected faculties.

Stage 4: Proportionate allocation based on the number of students in each department was applied in the selection of number of study participants in each of the selected department and

Stage 5: Simple Random sampling was used to select 2 levels from each of the selected department

Stage 6: Simple random sampling technique was used to select respondents for the study

Table 1: Number of participants in of the selected department

S/N	Name of Faculty	Name of Departments	Number of Students in the Department	Number of selected participants
1.	Sch. of Applied Science	Food Technology	334	23
2.	Sch. of Applied Science	Science Laboratory Technology	704	49
3.	Sch. of Engineering Tech	Mechanical Engineering	258	19
4.	Sch. of Engineering Tech	Computer Engineering	190	14
5.	Business and Management studies	Business Administration	511	36
6.	Business and Management studies	Accountancy	410	31
7.	Communication and information Tech	Mass Communication	432	30
8.	Communication and information Tech	Liberary& Information Science	500	34
Total			3339	236

Validity of the Instrument

The instrument was thoroughly assessed and subjected to the supervisor and other lecturers from the department of Health Promotion and Education to ensure that the research objectives are met. Corrections made by these experts was adapted to improve the structure of the questionnaire.

Reliability of the Instrument

Reliability was done by pretesting 10% of the instrument among students of the Polytechnic of Ibadan, Oyo State. This population has similar characteristics with actual population but not consist of the population who will participate in the study. The internal consistency was determined using the Cronbach's Alpha coefficient analysis and a reliability coefficient of 0.741 was realized, thus considered reliable.

Procedure for Data Collection

The research assistants were two female HND holder and were within the age range of 24-25 years, they were recruited and trained for the study. The training was taken by an expert in the field of Health Promotion and Education as a facilitator and focused on the objectives and importance of the study. The research assistants were involved in pretesting the instrument.

An informed consent was sought from the students that took part in the study. The anonymity and confidentiality of the respondents was kept safe by the research assistant. The questionnaire was tagged with number for accountability of the questionnaire.

Data Analysis

The analysis was done by using statistical package for the social sciences (SPSS) version 21. The data collected was subjected to descriptive statistics (mean, median and mode) for the knowledge, risk perception and preventive practice score and chi-square was used to investigate the relationship between knowledge and demographic characteristics (age, gender, level of knowledge and educational status) of the respondents.

Data on knowledge was analyzed using Eighteen (18) point knowledge scale by allotting two (2) point to any correct answer and zero (0) point for any incorrect answer. Total score of ≥ 11 was classified as a good knowledge and a score of ≤ 10 was classified as having poor knowledge.

The perception of the students on suicidal ideation and attempt was equally analyzed using Twenty two (22) point perception scale by allotting two (2) point to any correct answer and zero (0) point for any incorrect answer. Total score of ≥ 11 was classified as a good perception and a score of ≤ 10 was classified as having poor perception.

Moreover, data on prevalence was analyzed using a four-point scale. The four categories of Very often, Often, Rarely and Not at all were assigned figures: 4, 3, 2, 1 respectively. A total mean score was estimated for each respondent. The criterion mean score was determined by adding all the scores assigned to the degree of behaviour to a statement and dividing it by the number of possible responses. Consequently, a mean score of 2.5 to 4.0 was considered as high prevalence towards suicidal ideation and attempt while a mean scores below 2.5 was considered a low prevalence of suicidal ideation and attempt among the students.

Results

Respondent's Socio-demographic characteristics

The ages of the respondents ranged from 15-28 years with a mean of 21.2 ± 2.8 years. Findings revealed 50.4% were within the age of 15-19 years and 53.4% of the respondents were females. 97.9% of them were observed to be Yoruba and single. Also, it was observed that 57.2% of the respondents were Christians and 46.6% of the respondents were in their OND1

Respondent's Awareness of Suicidal ideation and cases of suicidal attempt in the institution

The awareness level of suicidal ideation and cases of suicidal attempt was assessed among the respondents. 69.1% reportedly to have heard of suicidal Ideation and attempt. . However, when asked if they are aware of suicidal attempt cases in their institution, 47.5% acknowledged to have heard of cases of suicidal attempt in their institution.

Respondent's Knowledge of suicidal ideation and attempt

The level of knowledge was observed to be high among the respondents since more than half of them had good knowledge (60.2%) and 39.8% of had poor knowledge of suicidal ideation and attempt.

Prevalence of students on suicidal ideation and attempt

The Analysis conducted with respect to the variables measuring suicidal ideation revealed a low prevalence of suicidal ideation among the students since a grand mean score of 1.42 was gotten

for the responses gotten for each variable which is less than the estimated criterion mean score of 2.5 ($x=1.42 < 2.5$). However, a mean score of 1.78 for the variable “How often do you talk about suicide was observed to have a mean score close to the criterion mean which can suggest that it’s the major variable measuring the level of suicidal ideation among the students. Further analysis conducted showed that 91.5% had low prevalence towards suicidal ideation while a few 8.5% were observed to have tendency towards suicidal ideation.

The Analysis conducted with respect to the variables measuring suicidal attempt revealed a low prevalence of suicidal attempt among the students since a grand mean score of 1.41 was gotten for the responses for each variable and they were less than the estimated criterion mean score of 2.5 ($x=1.41 < 2.5$). However, a mean score of 1.49 for the variable “Do you often have reasons to take your life” were observed to have a mean score close to the criterion mean. Further analysis was conducted by respondent and findings show that majority (94.5%) had low prevalence towards suicidal ideation while a few (5.5%) were observed to have tendency towards suicidal attempt.

Perceived Protective factors of Suicidal Ideation and Attempt

The most common protective factors of suicidal ideation and attempt identified among the students are: “Being calm when faced with difficulties by relying on problem-solving abilities” (92.4%)”, “Practicing the moral sanctions against suicide that protects against suicidal behaviours (91.9%)” and “Getting emotional help and support from Family and friends(83.1%)” among the students

Discussion

Socio-demographic profile

Findings revealed that half of the respondents were within the age of 15-19 years. This shows that most of the respondents are late adolescents. This is similar to the findings of the study conducted by Anderson, (2002), where most respondents are in their late teens and that suicide incidence increases in the late teens and continues to rise until the early twenties. Most of the respondents were females and this finding was similar to a study conducted by Adedayo, & Omilola (2020), where female respondents were found to be more in number than male respondents. Based on marital status, 229 (97.0%) constituting the majority of the respondent

were single, this could be attributed to the fact that majority are within the young age group and also the desire for higher education had influenced the age of entry into marriage as most people prefer to finish school before getting married (Arowojolu et al., 2002). The fact that majority (97.9%) were Yoruba could be attributed to the location of study area as it is located in the Kwara South part of Kwara State where the predominant ethnic group is Yoruba.

Respondent's awareness and knowledge of suicidal ideation and attempt

The result shows that the respondents are aware of what suicidal Ideation and Attempt, this was revealed by the larger percentage of respondents who said that they have heard of suicidal ideation and attempt in their Institution. This can be established by the cases of suicidal behaviours that have happened previously in that environment which ordinarily will go viral and make one to be eager to know more. Moreover, this high awareness prevalence could be attributed to the fact that suicidal ideation and attempt occurs among young people and most people would have come across or heard about someone that had experienced it.

The level of knowledge was observed to be moderately high among the respondents since more than half of them had good knowledge (60.2%) and about a quarter having a poor knowledge (39.8%) of suicidal ideation and attempt. This good knowledge demonstrated may be explained by the setting of the population that is, the level of educational status of the respondents.

Prevalence of students on suicidal ideation and attempt

The Analysis conducted with respect to the variables measuring suicidal ideation revealed a low prevalence of suicidal ideation among the students since a grand mean score of 1.42 was gotten for the responses gotten for each variable which is less than the estimated criterion mean score of 2.5 ($x=1.42 < 2.5$). However, a mean score of 1.78 for the variable "How often do you talk about suicide" was observed to have a mean score close to the criterion mean which can suggest that it's the major variable measuring the level of suicidal ideation among the students. Further analysis conducted by respondent shows that majority (91.5%) had low prevalence towards suicidal ideation while a few (8.5%) were observed to have tendency towards suicidal ideation. This result was not in agreement with the findings of Omigbodun, Dogra, Esan and Adedokun, (2008), who conducted a study on the prevalence and correlates of suicidal behaviour among adolescents in southwest Nigeria.

The Analysis conducted with respect to the variables measuring suicidal attempt revealed a low prevalence of suicidal attempt among the students since a grand mean score of 1.41 was gotten for the responses for each variable and they were less than the estimated criterion mean score of 2.5 ($x=1.41 < 2.5$). However, a mean score of 1.49 for the variable “Do you often have reasons to take your life” were observed to have a mean score close to the criterion mean which might suggests that it’s the major variable measuring the level of suicidal attempt among the students. Further analysis was conducted by respondent and findings show that majority (94.5%) had low prevalence towards suicidal ideation while a few (5.5%) were observed to have tendency towards suicidal attempt.

Perceived Risk factors of Suicidal Ideation and Attempt

The key findings showed that the most common risk factors of suicidal ideation and attempt are mainly the social factors. These risks are embedded in social interactions within the school environment, the home and their interpersonal relationships. This include Relationship Break ups, shame, loss defeat, humiliation or threat between students and loved ones, financial problems and “Experiences from sexual violence or abuses among the students. Also, a great number of the respondents agreed to the statement that “Suicide ideation and attempt is caused by poor psychosocial functioning”.

Perceived Protective factors of Suicidal Ideation and Attempt

It was observed that majority of the students agreed to be using most of the protective factors against suicidal ideation and attempt. The most common protective factors of suicidal ideation and attempt identified among the students are: “Being calm when faced with difficulties by relying on problem-solving abilities” Majority of the respondent practiced the moral sanctions against suicide that protects against suicidal behaviours. Majority also feel getting emotional help and support from Family and friends is a protective factor for them

Relationship between the level of perception and perceived risk factors of Suicidal ideation and attempt

The results showed that a positive significant relationship exists between the level of perception and perceived risk factors of Suicidal ideation and attempt. Findings revealed that variables “Suicide ideation and attempt is caused by poor psychological functioning”, “Academic failures

can make student to have suicidal thought and suicidal attempt and “Experiencing disappointments could make a student consider putting an end to his/her life” showed a significant association with the level of perception of suicidal ideation and attempt. This study agrees with the findings of Vogel et al., (2007), which stated that the stronger one’s perception about the fear of being publicly shamed, the greater the self shame, which in turn creates a more negative attitude toward counseling and decreased willingness to seek help.

Relationship the level of knowledge and protective factors of Suicidal ideation and attempt

The result of this study confirms that there is a significant association between the level of knowledge and protective factors of Suicidal ideation and attempt. Findings revealed that the the variable “I have a high levels of reasons for living which helps protect against suicide thoughts and attempt”, “relying on problem-solving abilities” and “Getting emotional help and support from Family and friends” showed a significant association with the level of knowledge of suicidal ideation and attempt. A good knowledge of suicidal ideation and attempt would encourage the use of the protective factors of suicidal ideation and attempt. This result supports the literature that reported that good knowledge of suicidal behaviours and prevention increases the likelihood of identifying student who are at risk (Condrón et al. 2014).

Conclusion

Based on the results of this study, the study concluded that Relationship Break ups, Academic failures, shame, loss defeat, humiliation or threat between students and loved ones are the major causes of suicidal ideation and in higher institution of learning while other causes like sexual violence or abuses, depression, hopelessness, financial crisis, conflict with parents among others can also cause suicidal ideation. The most common protective factors of suicidal ideation and attempt identified among the students are: “Being calm when faced with difficulties by relying on problem-solving abilities”, practicing the moral sanctions against suicide that protects against suicidal behaviours. Getting emotional help and support from Family and friends is a protective factor for them. Increasing these protective factors will generally decrease the risk factors.

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