Original Research Article

Suicidality amongst young adults in South-south Nigeria

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Received: 17 June 2021
Accepted: 17 July 2021

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Abstract

Background: Suicidality is a broad term that encompasses suicidal ideation, suicide plans, and suicide attempts. Suicide cuts across all age groups however the young adulthood phase is a critical time for the onset of suicidal behaviours. Often suicide is underreported because of the shame, as such it is a neglected public health problem in our environment. This study seeks to describe the pattern of suicidality and reported health seeking behaviour amongst young people in Bayelsa State.

Methods: A descriptive cross-sectional study conducted in the national youth service corps orientation camp, Bayelsa amongst 387 corps members. With the aid of an electronic, self-administered questionnaire adapted from the WHO STEPwise manual on non-communicable diseases; information on socio demographic features, suicide ideation, plan and attempt were obtained. Data was analysed using IBM SPSS version 25.0.

Results: The mean age was 25.37 (SD±2.38) years. Most participants were males (58.9%) and single (95.3%). Prevalence of suicidal ideation, plans and attempts was 7.5%, 4.4% and 3.1% respectively. Above one third (35.4%) of those who made suicidal plans in the past 12 months, actually attempted suicide, 4.4% and 2.6% of the respondents had a positive family history of suicide attempt and suicide death respectively.

Conclusions: Young adults are a critical population for suicidality. Public health awareness on mental health promotion and uptake of mental health service should be encouraged. Decriminalisation of attempted suicide in Nigeria and better surveillance will enable more effective suicide prevention strategies.

Keywords: Suicide, Suicidality, Suicide ideation, Suicide plan, Suicide attempt, Young adults

Introduction

Suicidality is a broad term that encompasses suicidal ideation, suicide plans, and suicide attempts.1 Suicide ideation, refers to thoughts of engaging in behaviour, aimed at ending one’s life. Suicide plan is the formulation of a specific method and preparations towards ending one’s own life. Suicide attempt is the engagement in potentially self-injurious behaviour with some degree of expressed intent to die.2 People who experience suicidal ideation and make suicide plans are at increased risk of suicide attempts, and people who experience all forms of suicidal thoughts and behaviours are at greater risk of completing suicide.3 Non-fatal suicidal thoughts and behaviours usually precede successful suicide acts and should be seen as important calls for help and intervention, when they occur.

The following are the spectrum of suicidality:1. Suicidal ideation, refers to thoughts of engaging in behaviour, aimed at ending one's life. 2. Suicidal plan, is the formulation of a specific method and preparations towards ending one’s own life. 3. Suicidal attempt, is the engagement in potentially self-injurious behaviour with
some degree of expressed intent to die.\textsuperscript{2}

Suicide cuts across all age groups. In 2015, suicide mortality rate was 10.7 per 100,000.\textsuperscript{4}

It has been reported that more than 800,000 people die due to suicide each year. Globally suicide accounts for 1.4% of all deaths, and was the 18\textsuperscript{th} leading cause of death in 2016.\textsuperscript{6} Reports from WHO indicate that suicide accounts for the largest share of the intentional injury in developed countries, with over 79% of global suicides occurring in low and middle income countries in 2016.\textsuperscript{6}

The young adulthood phase is a critical time for the onset of suicidal behaviours. Thus suicidality has become a major public health concern because of its life-threatening nature and widespread prevalence amongst young people.\textsuperscript{2} Evidence has shown that amongst persons who have ever considered or attempted suicide in their life, they had first done so at some point during their youth. The lifetime age of onset for suicidal ideation and suicide attempt typically occurs before the mid-20s.

Reports also show that the highest increase in the number of suicide deaths throughout the life span occurs between early adolescence and young adulthood and suicide ranks higher as a cause of death during youth compared with other age groups.\textsuperscript{6-8} In fact, suicide is the third leading cause of death among young people aged 15–44 years old, and second leading cause amongst adolescents aged 10–19 years.\textsuperscript{4} Nigeria, Congo and Nepal report a low suicide rate of <10/100,000.\textsuperscript{7} The Nigeria suicide research and prevention initiative services on record reported that 0.37% and 12% of adult and adolescent populations, respectively, have attempted to kill themselves.\textsuperscript{10}

Prevalence estimates for suicidal behaviours varies widely across different countries and studies.\textsuperscript{8,11} For adolescents and young adults, lifetime prevalence estimates range from 12.1% to 37.9% for suicidal ideation, 3.0% to 20.3% for plan, and 1.5% to 12.1% for attempt.\textsuperscript{8,12-14} In a cross-sectional, epidemiological study of 1180 adolescents and young adults in Germany, 10.7%, 5.0%, and 3.4% of participants reported lifetime suicidal ideation, plan, and attempt, respectively.\textsuperscript{15} The cumulative incidence of suicidal behaviour increased after age 10 years, and the transition from ideation to attempt occurred mostly during the same year.\textsuperscript{15} Another study on the prevalence of suicidal behaviour (ideation, planning and attempts) done in Lagos, Nigeria among 9441 adolescents revealed that 6.1%, 4.4% and 2.8% had suicidal ideation, planning and attempts respectively in the last 1 month of the study.\textsuperscript{16} These studies revealed that suicidal behaviour were more in female than their male counterparts, witnessing domestic violence, past and present academic difficulties, were associated with suicidal ideation, plan and attempt.\textsuperscript{15,16} Looking at the ideation-to-action transition, a cross-national research in adult samples in 17 countries: Africa (Nigeria; South Africa); the Americas (Colombia; Mexico; United States), Asia and the Pacific (Japan; New Zealand; Beijing and Shanghai in the People’s Republic of China), Europe (Belgium; France; Germany; Italy; the Netherlands; Spain; Ukraine); and the Middle East (Israel; Lebanon), demonstrated that roughly one-third of those with suicide ideation continue to make a plan, and about 30% make a suicide attempt.\textsuperscript{11,17}

Multiple methods are often employed in suicide attempts. WHO reported that the most common methods of suicide are hanging, pesticide self-poisoning, and the use of firearms.\textsuperscript{18} Common methods used among young people include overdose on medications or ingestion of poisonous substances, followed by hanging/suffocation and the use of a sharp object (e.g. cutting).\textsuperscript{19}

Very often suicide is likely to be underreported because of the shame it brings to the family and in a country like Nigeria that criminalize the act of suicide and suicide attempt, punishable with one year imprisonment.\textsuperscript{20,21} As such it is a neglected public health problem in our environment despite being recognised by the WHO as a crucial public health and social concern.\textsuperscript{22,23} There is scarcity of information about suicidality amongst young people in Nigeria, thus this study seeks to describe the pattern of suicidality and reported health seeking behaviours amongst university graduates (young people) in Bayelsa State.

**METHODS**

This was a cross-sectional descriptive study conducted in the national youth service corps (NYSC) orientation camp, Kaima community, Bayelsa State amongst 387 corps members in November 2019.

The sample size for the study was determined by using the Cochrane formula: \( N = \frac{z^2pq}{d^2} \) where, \( n \) =minimum sample size, \( z \) =standard normal deviate at 95% confidence interval which is 1.96, \( p \) =prevalence of 24% for suicide ideation in a previous study, \( d \)=tolerable alpha error of 0.05, \( q \)=complimentary probability of \( p \) (\( q=1-p \)); \( n=280 \). Adding a non-response rate of 10% gives a minimum sample size of 310.\textsuperscript{24}

The total number of corpsers in this batch was 1,500 and was divided into 10 platoons. Respondents were selected using simple random sampling from each platoon and questionnaires was administered to 39 corps per platoon of which 387 responded. Data was collected using an electronic, self-administered questionnaire adapted from the WHO STEPwise approach to surveillance questionnaire for non-communicable diseases and their risk factors to individuals who gave consent. Pregnant and sick individuals were excluded from the study.

The study instrument assessed the socio-demographic characteristics of the respondents (gender, age, marital status, institution of study, State of origin, number of years in school, religion, ethnic group), suicidal
behaviour (suicide ideations, plan and attempts) and preventive measures taken. Data was analysed using IBM statistical package and services solutions (SPSS) version 23.0. Ethical approval was gotten from ethical review committee of the federal medical centre Yenagoa, Bayelsa State and permission obtained from the coordinator national youth service corps, (NYSC), Kolokuma Opokuma LGA.

RESULTS

A total of 387 young adults between the ages of 18 and 30 completed the study questionnaire. The mean age was 25.37 (SD±2.38) years and the modal age group were 25-29 years 236 (61.0%). Majority were males 228 (58.9%), 368 (95.1%) were single, most were Christians 298 (77.0%) while 242 (62.5%) graduated from university (Table 1).

Table 1: Socio-demographic characteristic of respondents.

| Variable                  | Frequency (n) | Percentage (%) |
|---------------------------|---------------|----------------|
| Age (years)               |               |                |
| ≤20                       | 8             | 2.1            |
| 20-24                     | 130           | 33.6           |
| 25-29                     | 236           | 61.0           |
| ≥30                       | 13            | 3.4            |
| Mean age                  | 25.37±2.38    |                |
| Median                    | 25            |                |
| Mode                      | 25            |                |
| Sex                       |               |                |
| Male                      | 228           | 58.9           |
| Female                    | 159           | 41.1           |
| Marital status            |               |                |
| Single                    | 369           | 95.4           |
| Cohabiting                | 6             | 1.6            |
| Married                   | 12            | 3.1            |
| Institution of graduation |               |                |
| University                | 242           | 62.5           |
| Monotechnic               | 32            | 8.3            |
| Polytechnic               | 113           | 29.2           |
| Religion                  |               |                |
| Christian                 | 298           | 77.0           |
| Muslim                    | 81            | 20.9           |
| Traditionalist            | 2             | 0.5            |
| Atheist/Non-religious     | 6             | 1.6            |
| Duration in school (years)|               |                |
| ≤4                        | 211           | 54.5           |
| 5-6                       | 153           | 39.5           |
| ≥7                        | 23            | 5.9            |
| Ethnicity                 |               |                |
| Hausa                     | 27            | 7.0            |
| Ibo                       | 117           | 30.2           |
| Yoruba                    | 164           | 42.4           |
| Others                    | 79            | 20.4           |

The prevalence for suicidal ideation was 29 (7.5%) amongst the respondents, of which 9 (31.0%) of them sought medical help (Table 2).

Table 2: Suicide ideation.

| Variable                  | Frequency (n) | Percentage (%) |
|---------------------------|---------------|----------------|
| Suicidal ideation         |               |                |
| Yes                       | 29            | 7.5            |
| No                        | 358           | 92.5           |
| Sought medical help, (n=29)|             |                |
| Yes                       | 9             | 31.0           |
| No                        | 20            | 69.0           |

In the past 12 months 17 (4.4%) had made suicide plans, while 6 (35.3%) of these have actually attempted suicide. The commonest methods used in suicide attempts amongst study participants were; the use of sharps such as razor or knives and the overdose on medications, 33% respectively. Of those who made suicide plans in the last 12 months only 1 (16.7%) sought medical help. Also, 12 (3.1%) of the respondents have ever attempted suicide at one time or the other as shown in Table 3.

Table 3: Suicide plans and attempts.

| Variable                  | Frequency (n) | Percentage (%) |
|---------------------------|---------------|----------------|
| Plans for suicide in past 12 months |             |                |
| Yes                       | 17            | 4.4            |
| No                        | 370           | 95.6           |
| Attempted suicide in the past 12 months, (n=17) | | |
| Yes                       | 6             | 35.3           |
| No                        | 11            | 64.7           |
| Methods used in last suicide attempt, (n=6) |             |                |
| Razor, knife or another sharp instrument | 2 | 33.3 |
| Overdose of medication    | 2             | 33.3           |
| Trying to be hit by an oncoming vehicle | 1 | 16.7 |
| Others                    | 1             | 16.7           |
| Sought medical care in last suicide attempt |             |                |
| Yes                       | 1             | 16.7           |
| No                        | 5             | 83.3           |
| Ever attempted suicide    |               |                |
| Yes                       | 12            | 3.1            |
| No                        | 375           | 96.9           |

Figure 1 reveals that the prevalence of suicide ideation, plans and attempts (25.0%, 12.5%, 12.5% respectively) was higher in the youngest age group (respondents less than 20 years). While the prevalence for suicide ideation, plans and attempts (7.9%, 6.1%, 1.8% respectively) was higher in the males, as shown in Figure 2.

Table 4 reveals that some 17 (4.4%) of the respondents had a positive family history of a family member who...
have attempted suicide and 10 (2.6%) had family members who have died from suicide.

![Prevalence of suicide ideation, plan and attempt by age](image1)

**Figure 1: Prevalence of suicide ideation, plan and attempt by age.**

![Prevalence of suicide ideation, attempt and plan by sex](image2)

**Figure 2: Prevalence of suicide ideation, attempt and plan by sex.**

**Table 4: Family history of suicide attempts and deaths.**

| Variable                          | Frequency (n) | Percentage (%) |
|----------------------------------|---------------|----------------|
| Suicide attempt amongst family members |                |                |
| Yes                              | 17            | 4.4            |
| No                               | 370           | 95.6           |
| Suicide death amongst family members |                |                |
| Yes                              | 10            | 2.6            |
| No                               | 377           | 97.4           |

**DISCUSSION**

This research was carried out across a section of young adults undergoing the orientation program of the national youth service corps, Bayelsa State. The main purpose of this research was to describe the pattern of suicidality and the mental health seeking behaviour amongst these young people. The age range of participants for this study was 18 to 30 years with a mean of 25.37±2.38 years and a majority of the participants (61%) being within 25-29 years. This age group have been reported as having about the highest onset of suicidal behaviours.7 Usually across countries, suicide death rates for older adolescents and young adults (15-29 years) are at least ten times greater than children and young adolescents (5-14 years). This trend among older adolescents is to some extent attributed to greater prevalence of psychopathology such as substance abuse and suicidal intent.22,24 The prevalence of suicidal ideation, plans and attempts was 7.5%, 4.4% and 3.1% respectively amongst the participants in this study which is comparable with the findings of several studies.11,15,16 This further buttresses the fact that there are important cross-national consistencies in the prevalence for suicidal behaviours. Although a cross national study on the prevalence and risk factors for suicidal ideation, plans and attempts do suggest that there is significant variability in the prevalence of suicidal behaviours cross-nationally.11

Our findings reveals that of those who have made suicidal plans in the past 12 months, slightly above one third (35.4%) have actually attempted suicide which is in keeping with that which was reported in other studies done amongst young adult samples which illustrated that approximately one-third of those with suicide ideation continue to make a plan, and less than 30% make an attempt.11,13 Furthermore, the transition from ideation to plan or attempt often occurs during the first year of onset of ideation but this findings differs from that reported in a study across all countries examined in a cross-national study in 17 countries: Africa (Nigeria; South Africa); the Americas (Colombia; Mexico; United States), Asia and the Pacific (Japan; New Zealand; Beijing and Shanghai in the Peoples Republic of China), Europe (Belgium; France; Germany; Italy; the Netherlands; Spain; Ukraine); and the Middle East (Israel; Lebanon), which states that about 60% of the transitions from suicidal ideation to first suicide attempt occurred within the first year of ideation onset.8,15,11

Majority of those who have attempted suicide, were either through the use of sharps (33.3%) or ingestion of pesticides (33.3%) which is in keeping with reports from WHO that estimated that around 20% of global suicides are due to pesticide self-poisoning, most of which occur in rural agricultural areas in low- and middle-income countries.6 Suicide by hanging and the use of firearms have also been reported.18 This was at variance in this study where the use of sharps was applied by another majority of participants, which could stem from the fact that firearms are not readily available in the country since it is against the law to be in possession of firearms, unlike in the western climes where individuals can possess firearms.
Generally, the availability and quality of data on suicide behaviour and suicide attempts is poor. Some studies have reported the poor health seeking behaviour of most people who have had suicide plans and attempts. This was validated in study which reveals that only 1 (16.3%) of the those who have attempted suicide in the past 12 months, actually sought medical help. This problem of poor Health seeking behaviour has led to poor quality mortality data, which can be linked to the sensitivity of suicide and the illegality of suicidal behaviour in some countries like Nigeria where suicide attempt is seen as a criminal offence punishable by one year imprisonment. Thus survivors of suicide attempts rather than seek help from where they can be loved and cared for with understanding, usually resort to peers or the internet.

The incidence of suicide ideation, plans and attempts was higher amongst the younger age group; those less than 20 years, and there after increased again in the older age group; those 30 years and above. Also about half of the younger age group did transition from ideation to plan and attempt within 12 months, as have been shown in some other studies that have similar findings, where it was reported that the spectrum of suicidality tends to increase in late adolescents and early adulthood.

Although several studies have reported a higher prevalence of suicidality amongst females, our study is at variance where we found a slightly higher prevalence for ideation, plans and attempts in the last 12 months amongst the males. But the prevalence for ever attempting suicide was higher in the females.

**Limitation**

This study is not entirely reflective of the perspectives of young persons in Bayelsa since it was carried out in an orientation camp for young people coming into the state. Also, our study did not explore the reasons and associations, thus giving room for more studies to be done.

**CONCLUSION**

This study clearly shows that suicidality among young persons is an issue that requires promotion of mental health care among young adults. The timely registration and regular monitoring of suicide at the community and national level are the basis for effective national suicide prevention strategies. There is need to review the suicide law in Nigeria; that makes suicide or suicidal attempt a crime punishable by one year in prison, and adopt the mental health approach. Thus, more focus can be put on identifying the root causes of suicide and providing the needed love, care and help for such persons rather than punishment.

**ACKNOWLEDGEMENTS**

The authors would like to thanks all who participated in this study.

**Funding:** No funding sources

**Ethical approval:** The study was approved by the Institutional Ethics Committee

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Cite this article as: Oguche OI, Mariere UI, Adesina AD, Afakwu-Adimoha HC, Akakabota R, Abanda SC, et al. Suicidality amongst young adults in South-south Nigeria. Int J Community Med Public Health 2021;8:3737-42.