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PREVALENCE AND CORRELATES OF SUICIDAL BEHAVIOUR AMONG ADOLESCENTS IN SOUTHWEST NIGERIA

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ABSTRACT

Background: Despite being recognized by the World Health Organization as a significant social and health concern, information on suicidal behaviours in Nigerian adolescents is unknown.

Aims: To establish the prevalence and associated psychosocial correlates of suicidal ideation and attempts in Nigerian youth.

Methods: Stratified sampling was used to identify youth aged 10–17 years who completed the Nigeria version of the Global School Health Questionnaire (GSHQ) and the Diagnostic Predictive Scale (DPS) for youths (suicidal behaviour questions) in a classroom setting.

Results: A total of 1429 youth completed the instruments. Over 20% reported suicidal ideation and approximately 12% reported that they had attempted suicide in the last year. Adolescents living in urban areas, from polygamous or disrupted families, had higher rates of suicidal behaviour. Multiple psychosocial factors such as sexual abuse, physical attack and involvement in physical fights were significant predictors of suicidal behaviour.

Conclusion: Factors associated with suicidal ideation and behaviours are similar to those found in other studies but the rates of both suicidal ideation and attempts are towards the upper limit of rates for youth. This study suggests that there is an urgent need for Nigerian policymakers and health providers to review and address this issue.

Key words: suicidal behaviour, adolescents, Nigeria

INTRODUCTION

Suicide and self-harm ideation have been identified by the World Health Organization as a significant social and mental health concern. Several studies carried out in developed and developing countries reveal that adolescent suicidal behaviour is a serious public health problem (Gould *et al.*, 1996; Liu *et al.*, 2005; Rodriguez *et al.*, 2006). Studying the whole continuum of suicidal behaviour is particularly important in adolescents because both suicidal ideation and suicide attempts have been found to be associated with the risk for completed suicide (Gould *et al.,* 1996). Completed suicide rates in adolescents are among the leading causes of death in several countries (Diekstra & Gulbinat, 1993; Phillips *et al.*, 2002).

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Many studies carried out in other parts of the world have reported the association of several psychosocial factors with suicidal behaviour in adolescents. Higher rates of suicidal behaviour are found in females (Bhugra *et al*., 2003; Hesketh *et al.*, 2002), the older adolescent (Liu *et al.*, 2005), socio-economically deprived adolescents (Ayton *et al.*, 2003; Rehkopf & Buka, 2006) and those from disrupted families (Akleema & Hari, 2005). In the Western literature, strong associations have also been found between suicidal behaviour and adolescents who have been sexually abused, exposed to violence or engaged in psychoactive substance use (Howard & Wang, 2005).

In recent years there have been several studies in the developing world, especially China. Liu *et al*. (2005) reported on an epidemiological survey of 1362 adolescents from five high schools in Shandong, China. Overall, 19% of the sample reported suicidal ideation and10.5% reported deliberately trying to hurt or kill themselves. Multivariate logistic regression models showed that female gender, older age, boarding in school, life stress, depression and external locus of control were significantly associated with increased risk for suicidal ideation, while older age, life stress, external locus of control, poor academic performance, depression and aggression were related to suicide attempts.

Sun *et al*. (2006) surveyed 433 Chinese adolescents to investigate the simultaneous relationships of family, school support and peer support, as well as the mediating relationship of self-esteem and depression to adolescent suicidal ideation. They drew their sample of 239 boys and 194 girls from four schools located in public housing areas and two in private housing areas. From this sample, 26% had suicidal ideation, 2.8% expressed suicidal intent and 3.2% had serious suicidal intent. The results showed that family cohesion, conflicts, teacher support and peer support significantly predicted self-esteem and depression, with depression being a strong mediator of suicidal ideation.

Based on mortality data for the1995–1999 period provided by the Chinese Ministry of Health, Phillips *et al*. (2002) examined suicide rates by gender, five-year age group and region (urban or rural). Suicide accounted for 3.6% of all deaths in China and was the fifth most important cause of death. Among young adults aged 15–35 years, suicide was the leading cause of death, accounting for 19% of all deaths. The rate in women was 25% higher than in men, mainly because of the large number of suicides in young rural women; rural suicide rates were three times higher than urban rates, a difference that remained true for both sexes, all age groups and over time.

A number of studies have used the Youth Risk Behaviour Survey (YRBS) (Kann *et al*., 2000), which is a comprehensive adolescent health survey that has been administered biennially in the US since 1991. Health risk behaviours examined by the YRBS are aggression, victimization, suicidal ideation, episodic heavy drinking, illicit drug use and sexual behaviour. Using the YRBS in a survey of 930 public secondary school students in El Salvador, Springer *et al*. (2006) examined the association between perceived parental social support and perceived social cohesion at school with selected youth risk behaviour outcomes. In this sample of adolescents, females reported a higher prevalence of having seriously considered committing suicide, and urban students reported significantly higher suicidal ideation. Female students who perceived high parental support and high social cohesion at school were less likely to report suicidal ideation, binge drinking and illicit drug use. Perception of parental social support and social cohesion at school held fewer but still significant associations across risk behaviours for male students.

Carter *et al*. (2006) administered a modified YRBS to a random sample of 652 high school students in New Zealand. Females were significantly more likely to report experiencing depressed mood and thinking about harming themselves. High and medium levels of family connectedness and reporting a supportive school climate were associated with fewer reports of suicidal ideation.

P.C. Chen *et al*. (2005) undertook a cross-sectional survey using a modified version of the YRBS with 4500 adolescent students. Seven per cent of the respondents had seriously considered attempting suicide and 4.6% had attempted suicide at least once in the previous 12 months. Female students were more likely to act on their suicidal thoughts.

Similarly, suicidal tendencies in Lithuanian school-aged children were examined in three cross sectional studies in 1994, 1998 and 2002 (Zemaitiene & Zaborskis, 2005). Each survey had more than 4500 children and about one-third of the respondents reported suicidal ideation, plans or attempted suicide.

Nigeria is undergoing tremendous social change. The quality of life is among the lowest in the world, and poverty, violence and chaos abound (Department for International Development, 2006). Nigerian youth live in extremely difficult circumstances, and in the midst of this social chaos, there is the HIV epidemic leaving several adolescents orphaned and helpless (Policy Project Group, 2005). Research into suicidal behaviour in Nigeria is very limited. The few studies on suicidal behaviour in Nigeria were based on hospital data. A six-month prospective study on attempted suicide in three hospitals in a city in southwest Nigeria (Odejide *et al*., 1986) revealed that 39 out of 23,859 (0.16%) patients who presented to these hospitals had attempted suicide. Another study looked at the pattern of autopsy findings following completed suicide over an 11-year period in another city in southwest Nigeria and reported a suicide rate of 0.4 per 100,000 population with a male to female ratio of 3.6 to 1 (Nwosu & Odesanmi, 2001). Both studies found higher rates in males, that most victims were in their 20s and that the use of pesticides was the most common method of self-harm. In Nigeria, suicide is a criminal act punishable by imprisonment (Federal Government of Nigeria, 1958). This would certainly deter those affected from presenting for assessment or treatment, making it difficult to establish the nature, extent or correlates of suicidal behaviour in the community. For children and adolescents, who make up almost half of the population of Nigeria, there are no records or data looking specifically at their patterns of suicidal ideation or behaviour, or on the number of lives lost to completed suicide.

This study is the first to examine rates of self-reported suicidal ideation and suicide attempt and associated psychosocial factors in urban and rural youth aged 10–17 years in southwest Nigeria. We hypothesised that rates would be comparable with those of other developing countries and higher than developed countries. We also hypothesized that suicidal behaviour will be associated with poverty, sexual behaviours, violence and psychoactive substance use.

METHOD

Setting

Ibadan and its environs, consisting of five urban and six rural districts, are located in southwest Nigeria. There is an urban core, which consists of unplanned, overcrowded slums, and a few planned areas. The rural areas are located an average of two hours' drive from the main urban centre. These rural settlements are mostly farming communities, with other artisan occupations like palm wine tappers, cobblers, carpenters and other traders.

Sampling

This study is part of a wider study on the health of youth in rural and urban southwest Nigeria. The target population included all students in secondary schools in the 11 rural and urban districts

in Ibadan and its environs. All grades (7–12) were included in the study. Based on an estimated prevalence of mental health problems of 20% (Gureje *et al.*, 1994; Jegede & Cederblad, 1990), a minimum sample size of 1345 students was obtained, which was increased to 2000 to accommodate for attrition. Using simple random sampling, five districts were selected, three urban and two rural.

A list of the number of schools in the selected districts was obtained and this list indicated the type of school (public or private) and its population. There were 101 schools from the five randomly selected districts and, using probability proportional size, 20 schools were selected. Information about the total number of students in each school, number in each class and ratio of boys to girls was used to obtain the number of students and ratio of boys to girls that would be involved in the study in each school. In selecting the individual students in each class, the Table of Random Digits was used to select students based on the number beside their name in the class register. Where a class register was not available, students were selected using the Table of Random Digits with the allocation of a number to each seat in the class.

Procedure

The Ethical Committee, Oyo State Ministry of Health, gave approval for the study. A few days before the administration of the instruments, the schools were visited and students were chosen from each class using random sampling. A consent form explaining the purpose and procedure of the study was available for parent or guardian and student to sign if they agreed to participate.

On the set day for administration of the instruments, the selected students assembled in classrooms or the school hall (if available) and were reassured of confidentiality. Each student was given a pencil and an eraser. The seating arrangement made certain that each student had adequate privacy and completed the questionnaire on their own. All questionnaires had been translated into the local language, Yoruba, using the back-translation method. Every student was given the option to choose either an English or Yoruba questionnaire. However, to ensure that each student had access to both languages, the researchers stayed in front of each class or hall and each question was read aloud in both English and Yoruba by two of the researchers. The administration of the questionnaire was done in both languages because even though the language of instruction in secondary schools is English, Yoruba is the mother tongue. Respondents were encouraged to seek clarification during this process. A pre-test had been carried out in an urban secondary school in December 2003 to ensure that the instruments and procedure was satisfactory. Data were collected between January and March 2004.

MEASURES

Suicidal behaviour

Suicidal behaviour was measured using the Diagnostic Interview Schedule for Children (DISC) (Predictive Scales 432 – items 23–25) (K.W. Chen *et al.*, 2005; Leung *et al.*, 2005; Lucas *et al.*, 2001)

Two questions from the DPS predictive scale for youth which look at suicidal behaviour were used for this part of the assessment. Participants either indicated yes or no to these questions. In the last year:

Has there been a time when you thought seriously about killing yourself?
Have you tried to kill yourself in the last year?

Diet, sexual behaviour, violence and psychoactive substance use

The Nigerian version of the Global School-Based Student Health Survey (GSHS) Core Questionnaire Modules (World Health Organization & Centers for Disease Control and Prevention, 2003) was used to determine health behaviours related to dietary behaviour, alcohol and other drug use, sexual behaviour and exposure to violence as shown in Table 1. One question was added to obtain information on sexual abuse.

Demographic information

The socio-demographic section of the questionnaire obtained information such as place of abode, gender, age, family structure (monogamous or polygamous), marital status of parents, living circumstances, occupation and level of education of parents.

Statistical analysis

The total response rate for the wider health study was 94% (1873 out of 2000). However, analysis for this study on suicidal behaviour was limited to 1503 adolescents aged 10 to 17 years in this sample, in keeping with most definitions of a child and adolescent. Students 18 and above were not included in this analysis.

Table 1
Questions asked to determine health behaviours

Question	Options and grouping for analysis
Dietary behaviour	
During the past 30 days, how often did you go hungry because there was not enough food in your home?	Never and rarely = no. Sometimes, most of the time, always = yes
Alcohol and other drug use	
During the past 30 days, on how many days did you have at least one drink containing alcohol? During your life, how many times have you used drugs like Indian hemp (Igbo), heroin, cocaine?	0 days = No. 1 or more days = Yes
Tobacco use	
How old were you when you first tried a cigarette?	Never = No. Any other age = Yes
Sexual behaviours	
Have you ever had sexual intercourse?	Yes
During the past 12 months, have you had sexual intercourse?	No
Has an adult or someone much older ever forced you to have sexual intercourse with them or touched you on your breasts, private parts, or made you touch parts of their own private parts?	
Violence and unintentional injury	
During the past 12 months, how many times were you physically attacked? During the past 12 months, how many times were you in a physical fight?	0 times = No. 1 or more times = Yes

Descriptive statistics such as means and standard deviations were used to summarize continuous variables, while categorical variables were summarized with percentages. The chi-squared test was used to compare the two proportions and to investigate the association between two qualitative variables at the 5% level of significance. Variables that were statistically significant in the bivariate analysis were subjected to a multiple regression analysis using the step-wise backward elimination method. Associations between suicidal ideation and suicide attempt and the explanatory variables were described using odds ratios and 95% confidence intervals, which were computed using the logistic regression model.

RESULTS

A total of 1429/1503 (95%) respondents aged 10–17 years (mean age 14.4 years: SD = 1.85 years) answered the questions on suicidal ideation and suicide attempt. Overall, 327/1429 (22.9%) of the respondents reported that 'they thought seriously about killing themselves in the last one year' and 167/1426 (11.7%) reported that 'they had tried to kill themselves in the past one year'. The mean age for respondents with suicidal ideation and suicide attempt was 14.43 years (SD = 1.76 years) and 14.48 years (SD = 1.85 years) respectively.

One thousand and thirty-eight respondents (1038/1426) (73%) did not report either suicidal ideation or suicide attempt whereas 107/1426 (7.5%) reported both suicidal ideation and suicide attempt. Of the 327 respondents who reported suicidal ideation, 107 (33%) reported suicide attempt while 59 of the 167 (35%) respondents who reported suicide attempt did not report suicidal ideation.

Table 2 shows the distribution of all respondents' characteristics and the bivariate relationship of the independent variables with suicidal ideation and suicide attempt.

Where the *N* value is lower than 1429, this indicates missing data. There were no gender differences in both suicidal ideation and attempt. Going hungry, ever having sex, sexual abuse, physical attack and involvement in physical fights were significantly more likely to be reported by youth with both suicidal ideation and attempt in the past year. Use of alcohol was significant for youth reporting suicide attempt, while psychoactive substance use was significant for youth reporting suicidal ideation.

Following logistic regression analysis, factors retained as being significantly related to both suicidal ideation and suicide attempt are shown in Table 3.

Sexual abuse, being physically attacked and engaging in physical fights in the last 12 months were significantly related to suicidal ideation. Working to support their families, going hungry because there was no food at home, having parents who were divorced or separated, and having sexual intercourse in the last 12 months were also significantly related to suicidal ideation ($p < 0.05$). Similarly, logistic regression analysis revealed that sexual abuse, physical attack in the last 12 months, engaging in physical fights in the last 12 months and living in an urban location were significant predictors of suicide attempts ($p < 0.05$).

Table 4 presents the results of separate logistic regression analysis for males and females.

Not being physically attacked in the last 12 months was associated with a reduced risk for suicidal ideation in males and suicidal ideation and attempt in females. Not having a drink of alcohol in the past 30 days was associated with reduced risk for suicide attempt for males. For females, having a mother who had been married more than once, having sex and being sexually abused were significant predictors for both suicidal ideation and suicide attempt.

Table 2
Bivariate relationship of independent variables with suicidal ideation and suicide attempt

Total sample		Suicidal ideation			Suicidal attempt		
Characteristics	**%**	***N***	**%**	***p***	*N*	**%**	***p***
Gender *N* = 1429							
Female	49.1	165	(23.5)	0.563	87	(12.4)	0.430
Male	50.9	162	(22.3)		80	(11.0)	
Living location (*N* = 1426)							
Rural	23.3	77	(23.2)	0.905	27	(8.1)	0.021
Urban	76.7	250	(22.9)		140	(12.8)	
Family structure (*N* = 1362)							
Monogamous	74.5	213	(21.0)	0.009	110	(10.8)	0.100
Polygamous	25.5	96	(27.7)		49	(14.1)	
Parents' marital status (*N* = 1412)							
Married	81.7	242	(21.0)	<0.001	126	(10.9)	0.056
Divorced or orphaned	18.3	81	(31.4)		39	(15.1)	
Does paid work before or after school (*N* = 1407)							
Yes	25.0	103	(29.2)	0.001	49	(14.0)	
No	75.0	217	(20.6)		115	(10.9)	0.077
Hungry due to lack of food in last 30 days *(N = 1417)*							
Yes	29.8	128	(30.3)	<0.001	68	(16.1)	0.001
No	70.2	198	(19.9)		98	(9.8)	
Drink of alcohol in last 30 days *(N = 1377)*							
Yes	12.4	49	(28.7)	0.060	29	(17.0)	0.017
No	87.6	268	(22.2)		129	(10.7)	
Psychoactive substance use past 30 days *(N = 1387)*							
Yes	3.7	18	(35.3)	0.036	10	(19.6)	0.074
No	96.3	303	(22.7)		152	(11.4)	
Ever had sex *(n = 1320)*							
Yes	18.8	93	(37.5)	<0.001	42	(17.1)	0.003
No	81.2	233	(19.9)		123	(10.5)	
Had sex past 12 months *(N = 1399)*							
Yes	9.9	52	(37.4)	<0.001	20	(14.5)	0.278
No	90.1	270	(21.4)		143	(11.4)	
Sexual abuse (*N* = 1377)							
Yes	7.5	42	(40.8)	<0.001	25	(24.2)	<0.001
No	92.5	277	(21.7)		139	(10.9)	
Physically attacked last 12 months (*N* = 1406)							
Yes	31.7	138	(31.0)	<0.001	72	(16.2)	<0.001
No	68.3	183	(19.0)		93	(9.7)	
Physical fight past 12 months (*N* = 1410)							
Yes	44.0	173	(27.9)	<0.001	97	(15.6)	<0.001
No	56.0	152	(19.3)		69	(8.7)	

Table 3
Significant predictors of suicidal ideation and suicide attempt in adolescents

	Odds Ratio	95% CI	*p*
Suicidal ideation			
Married parents	0.537	0.376–0.768	0.001
versus parents divorced or separated			
Working to earn a living = Yes	1.386	1.015–1.891	0.040
versus no			
Hungry due to lack of food at home last 30 days = No	0.706	0.523–0.954	0.023
versus yes			
Had sex in past 12 months = Yes	1.598	1.037–2.463	0.034
versus no			
Sexual abuse = Yes	2.105	1.290–3.435	0.003
versus no			
Physically attacked in past 12 months = No	0.727	0.530–0.997	0.048
versus yes			
Involved in physical fights in past 12 months = No	0.727	0.537–0.983	0.039
versus yes			
Suicide attempt			
Physically attacked in past 12 months = No	0.653	0.446–0.957	0.029
versus yes			
Involved in physical fights in past 12 months = No	0.613	0.419–0.897	0.012
versus yes			
Sexual abuse = Yes	2.165	1.278–3.668	0.004
versus no			
Urban dwelling	1.746	1.079–2.825	0.023
versus rural dwelling			

DISCUSSION

This study found that over 1 in 5 youth aged 10–17 years in southwest Nigeria had experienced suicidal ideation in the previous year, and 1 in 10 had attempted suicide in the past year. There were no differences in the rates of suicidal ideation and suicide attempt between males and females. Youth from polygamous families, whose parents were divorced or separated, had higher rates of suicidal ideation, while youth living in urban areas had higher rates of suicide attempt.

Multiple psychosocial factors such as sexual abuse, physical attack and involvement in physical fights were both significant predictors of suicidal ideation and suicide attempts in adolescents in southwest Nigeria. Socioeconomic deprivation and a lack of family cohesion evidenced by having to go hungry due to a lack of food at home, having to earn a living or parents being separated or divorced were also significantly associated with suicidal ideation.

Table 4
Gender differences in predictors of suicidal ideation and suicide attempt

	Odds Ratio	95% CI	*p*
Males			
Suicidal ideation			
Hungry due to lack of food at home last 30 days = No	0.584	0.374–0.913	0.018
versus yes			
Physically attacked in past 12 months = No	0.556	0.350–0.881	0.013
versus yes			
Suicide attempt			
Drink of alcohol in past 30 days = No	0.366	0.201–0.668	0.001
versus yes			
Involved in physical fights in past 12 months = No	0.555	0.321–0.960	0.035
versus yes			
Females			
Suicidal ideation			
Mother has had more than one marriage = No	0.348	0.199–0.610	< 0.001
versus yes			
Ever had sex = Yes	2.864	1.564–5.244	0.001
versus no			
Sexual abuse = Yes	2.758	1.436–5.294	0.002
versus no			
Physically attacked in past 12 months = No	0.620	0.407–0.945	0.026
versus yes			
Suicide attempt			
Mother has had more than one marriage = No	0.310	0.181–0.531	$p < 0.001$
versus yes			
Ever had sex = Yes	3.117	1.732–5.609	$p < 0.001$
versus no			
Sexual abuse = Yes	2.190	1.172–4.092	0.014
versus no			
Physically attacked in past 12 months = No	0.530	0.352–0.800	0.002
versus yes			

There were some gender differences in significant predictors for suicidal behaviour. Drinking alcohol and having to go hungry were significant predictors for male suicide attempt while sexual abuse or sexual activity and unstable family life were significant predictors for female youth. Physical attack was a significant predictor for suicidal behaviour in both male and female youth.

In comparison to studies in developed countries the rates identified here are higher (Lynch *et al.*, 2006). Vague suicidal thoughts can occur in up to one-third of teenagers, with an annual prevalence of deliberate self-harm (hospital-treated) of about 0.2% in the general population. The

lifetime prevalence of deliberate self-harm in adolescence has been found to be between 2 and 3.5% in studies from Europe, and higher in the United States (about 9%) (Hawton *et al*., 2003).

In developing countries there is greater variability, with only Malaysia (Chen *et al*., 2005) reporting lower rates of suicidal ideation than Lithuania (Zemaitiene & Zaborskis, 2005), Nicaragua (Rodriguez *et al*., 2006), China (Liu *et al*., 2005) or this study. However, attempts were lower in all the samples except the Chinese rural sample and the sample in this study.

One study did not identify any association between suicidal ideation and attempt and sociodemographic factors (Rodriguez *et al*., 2006). Others found that the family played a role but the way this role was defined was variable, e.g. connectedness to family (Carter *et al*., 2006) and family cohesion (Sun *et al*., 2006) were associated primarily with fewer reports of suicidal ideation; a study of El Salvador youth found that, using regression analyses, female students who perceived low parental social support were significantly more likely to report engaging in all risk behaviours, and female students with perceptions of low social cohesion were more likely to report suicidal ideation, binge drinking and drug use. Male students who reported low parental social support were significantly more likely to report suicidal ideation, drug use and physical fighting. This indicates that social support through parents and peers may have different mediating effects for males and females (Springer *et al*., 2006), as found in this study.

In US families, family economic pressure was related to parental depressive symptoms, which in turn were related to parental hostile behaviour and physical abuse. These parental behaviours were related to adolescent self-esteem and depressive symptoms, which, in turn, were related to adolescent suicidal ideation (Yoder & Hoyt, 2005). Youth who have experienced suicide attempts or suicide deaths in the family show high rates of at-risk behaviours, especially suicidal ideation and attempts (Cerel & Robert, 2005).

This study has identified key family factors that are relevant for Nigerian youth. While some are consistent with the existing literature, others are specific to the Nigerian context, e.g. polygamy. Young people living in polygamous families had higher rates of suicidal ideation but not suicide attempts.

Young people reporting suicidal ideation or making a suicide attempt are an at-risk population for subsequent suicidal behaviour and depression (Fergusson *et al*., 2005). Having to earn a living and going hungry may reflect the socio-economic deprivation experienced by many youth. This in turn may be reflected by a lack of family cohesion. Fights may reflect peer relationships and this finding is consistent with others who have found that an experience of bullying increases suicidal ideation and behaviours (Kim *et al*., 2005; Park *et al*., 2006). In this study, we did not show any causal relationship.

Nigerian adolescents have one of the highest rates of suicidal ideation and attempts found in research. This has far-reaching implications for Nigeria and perhaps also other developing countries that share similar contexts. As research in this area in Nigeria is limited, it is unclear whether these high rates are linked with actual suicides. The current Nigerian legislation which mandates one year's imprisonment for attempting suicide needs to be reviewed. While such legislation is in place it may hinder reporting and the seeking of help, although it is unclear how many youth would be aware of the legislation.

We would suggest that adolescents with high-risk factors need to be identified and counselled as preventive measures. However, with limited resources there may need to be creativity as to how this is undertaken. It is possible that the limited number of mental health professionals may work with schools to improve education and understanding of mental health. However, educational staff will require training and support if they are to undertake such activity.

The rates found in this study are worrisome and policymakers need to be aware of them and identify policy that attempts to address this issue. Policymakers in health and education may do well to work together to identify and provide care for youth in schools. They may also be able to help provide meals for the most deprived students as a way of improving children's mental health and increasing the likelihood that they will learn in school. Gender differences in needs must also be addressed.

One of the major limitations of this study is that children who were not in school were not included in the study and these children may be most disadvantaged. One can only postulate that the rates of suicidal behaviour in this extremely socio-economically disadvantaged group will be even greater than for those in schools. Another potential limitation is that data were collected only through self-report. However, the vast majority of parents are usually unaware of their children's suicidal feelings/behaviour (Carlson, 1990). Finally, this is a cross-sectional study and therefore no inferences can be made concerning the aetiological relationship of correlates to the suicidal behaviour found.

This study has found that Nigerian youth self-report levels of suicidal ideation and attempts at the upper limit of what other studies have found. This suggests that there is an urgent need for policymakers and healthcare providers to work together to consider how this can be addressed.

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