

Violence and Mental Health among Adolescents in South East Nigeria

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Abstract

Background: There is a rise in the prevalence of mental illness among adolescents and the impact of violence on this rising trend requires to be evaluated. **Aim:** The aim of the study is to better understand the impact of violence on adolescent's mental health. **Materials and Methods:** The study was a cross-sectional school-based study. Adolescents in the selected schools were interviewed using a structured questionnaire. Information on previous experience of violence, the action is taken, and the effect on them was collected. Data were entered and analyzed using SPSS. The level of significance was at $P < 0.05$. **Results:** A total of 716 adolescents were studied over a one month period. The prevalence of violence was 87%. About 57.2% of the violence occurred at home, 44.2% was carried out by relatives and 49.2% happened within the past six months. Sexual abuse was 10.2%. Among the adolescents that experienced violence, 58.7% suffered some form of mental illness. There was a significant difference between the action the adolescents took after the violent incident and the action that was considered appropriate for it ($P = 0.00001$). Female gender ($P = 0.042$), not living with parents ($P = 0.015$) and poverty ($P = 0.00001$) significantly correlate with adolescent violence. **Conclusion:** Violence is high among adolescents and associated with a high prevalence of mental illness. Interventional measures targeted at reducing violence by improving poverty alleviation programs that empower families to cater for their children should be implemented.

Keywords: Adolescent, mental health, Nigeria, southeast, violence

INTRODUCTION

Violence remains highly unreported despite its huge health consequences.^[1] It is basically violation of human rights and a global health problem, hindering the achievement of sustainable development goals (SDGs).^[2] Adolescents are at risk of violence and its associated consequences: injuries, mental health, substance use, and loss in productivity. Nigeria features most of the major factors that contribute to increase in violence cases: Recent increase in regional conflicts with the associated displacement of people^[3] collapsing national economies with 40.1% of the population below the poverty line,^[4] and 30 million Nigerians between the ages of 10–19 years.^[5]

Currently, the level of awareness and investment in the prevention of violence against adolescents remains low or nonexistent in most low- and middle-income countries. This may be attributed to a lack of consciousness on the impact of violence against adolescents especially with regard to mental health.

Highlighting the prevalence of violence among adolescents and its toll on the mental health of the future generation, contribute to the renewal of interest toward ending violence against children and adolescents which has been set for 2030 and is a major component of the SDGs.^[6-8] There is a need to address all forms of violence and harmful practices, especially against adolescents as a means toward ensuring healthy lives and promoting the mental well-being of adolescents.

Adolescents worldwide are faced with tremendous mental health challenges due to their critical and formative period

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of development marked by pronounced biological and social changes—a growing problem and a leading public health concern. The prevalence of mental illness among adolescents ranges between 13.4% and 49%.^[9,10] Little is known about the impact of violence against adolescents on their mental health and how they cope with this traumatic experience. Studies have shown that the impact of violent sex (rape) on the victim apart from physical injuries, risk of infection, and stigmatization, also causes emotional problems, which include suicide attempts, depression, and stress disorders.^[11,12]

Unfortunately, public dialogue has always linked mental health as a cause of violence among adolescents, but not the other way round. Understanding the impact of violence against adolescents on their mental health will help facilitate more structured interventions for the prevention of mental illness among adolescents in Nigeria. The design of implementable preventive strategies which can promote healthy relationships, and optimal developmental outcomes, aimed at reducing violence against adolescents, requires more evidence on what factors predispose adolescents to increased risk of violence^[13] It is crucial to have a better understanding of the extent of mental health burdens from violence against all adolescents. This may be needed information for the decision to allocate resources toward designing and implementing an efficient intervention that will ameliorate the burden of violence against adolescents.

MATERIALS AND METHODS

Study setting

The study was conducted in two communities; one urban and one rural in Umuahia North Local Government Area, in Abia state, southeast Nigeria. The population of Abia State is 3,727,300 with 24.2% being adolescents within the age bracket of 10–19 years.^[14] The youthful age structure in Abia states has an enormous implication concerning issues in adolescent health and its determinants including violence.

Sample size calculation

Sample size for the adolescents that have experienced violence was based on: The proportion of adolescents (10 years to 19 years) who had experienced violence is 28%, and proportion that suffers some consequences of 30% at 95% confidence interval and a precision of 5% and sampling size technique that may result in clustering of sampling, a design effect of 3.0 is applied.

Below shows the calculation of the sample size required based on the above assumptions.

Estimated prevalence of violence against adolescent	Design effect	Finite population correction factor used?	95% CL	Sample size
28%	5.0	No	+/-2.5%	384

CL: Confidence interval

Study design

The study was school based. A total of 6 schools were surveyed; 3 public and 1 private in the urban and 2 public in the rural. It was a multi-staged systematic study.

The secondary schools in the selected area were randomly selected and the number of subjects were apportioned to the different schools and classes. The students were systematically selected until the minimum sample size was obtained.

Data collection

The structured interviewer-administered questionnaire was used for data collection. Information on age, parent's education and occupation, previous experienced violence, which type, by whom, where, and when were collected. Furthermore, information on their actions, and the mental illness associated with the violence, and their ownership of household items were obtained.

Data analysis

The IBM SPSS version 20 (Chicago) was used for data entry. The Chi-square and P values were calculated for discrete variables. Using the international wealth index,^[15] the household assets were weighted and assigned a score, the cumulative of which was used to categorize the household into 4 socioeconomic quartiles. Statistical significance is considered at the 5% level.

RESULTS

The mean \pm standard deviation age of the respondents was 13.8 \pm 3.5 years, M: F ratio 1:2.2. Those who live with their parents were 562 (78.5%). Out of the 716 adolescents interviewed, 623 (87%) had experienced some form of violence and 1296 of the violence acts occurred within the six months from the time of the interview. The respondents who knew someone that has experienced violence were 444 (62.2%). The proportion that has been sexually abused was 72 (10.2%) [Table 1].

Out of the 1296 cases of violence reported among the adolescents, small cuts (411, 13.3%), verbal abuse (399, 13%), physical pain (386, 12.5%), hit on the head (334, 10.8%), and bullied (249, 8.1%) were among the highest that occurred. Sexually abused (72, 2.3%), injury that required surgical treatment (101 (3.3%), held up against the wall (117, 3.8%), and injury that required hospitalization (140, 4.5%) were among the least occurred [Figure 1].

Relatives, friends, and strangers were the perpetrators of the violence against adolescents in 1135 (44.2%), 1022 (39.8%), and 411 (16%) incidents. Home, school, and on the way/road were the sites in 1410 (57.2%), 867 (35.2%), and 187 (7.6%) of the violence events, respectively [Figure 2].

Most (424, 67.7%) of the adolescents reported the incident to their parents. Those who told their friends were 69 (11.2%). Those who reported to welfare were 8 (1.3%) and those who did nothing about it were 82 (13.1%). With regard to

appropriate actions to take, those who considered informing their parents, reporting to welfare, doing nothing and telling friends were 445 (64%), 48 (6.9%), 42 (6.1%) and 35 (4.9%) respectively. There was statistically significant difference

Table 1: Socioeconomic demographics of the respondents

Variables	n (%)
Age (years)	
Mean±SD	13.8±3.5
Median age (years)	15
Gender	
Male	227 (31.7)
Female	489 (68.3)
Educational level	
Junior secondary	279 (39)
Senior secondary	437 (61)
Lives with parents (n=716)	
Yes	562 (78.5)
No	154 (21.5)
Position in the family (n=674)	
1 st child	177 (26.2)
2 nd or 3 rd child	291 (43.3)
4 th and above	206 (30.5)
Place of resident	
Urban	547 (76.4)
Rural	169 (23.6)
Any form of violence incident?	
Yes	623 (87)
No	93 (13)
When did the violence occur? (n=2638 responses)	
Within six months from date	1296 (49.2)
>Six months ago	1342 (50.8)
Do you know any other person that has suffered violence? (n=714)	
Yes	444 (62.2)
No	270 (37.8)
Any form sexual abuse (n=708)	
Yes	72 (10.2)
No	636 (89.8)
Socioeconomic quartile (n=716)	
Poorest	179 (25)
Very poor	179 (25)
Poor	179 (25)
Least poor	179 (25)

SD: Standard deviation

between the action they took and the appropriate action they would have taken [Table 2].

Most (175, 30.4%) of the victims were very highly distressed due to the violence. Three hundred and sixty-six (58.7%) adolescents who were victims of violence, suffered one form of mental health disorder. Poor concentration (151, 41.3%), depression (96, 26.1%), and anxiety (76, 20.7%) were the common mental health disorders associated with violence. Posttraumatic stress disorder (14, 3.8%) and suicidality (14, 3.8%) were the least mental health disorder associated with adolescent violence. Those who suffered behavioural changes were 214 (34.4%), of which 172 (80.4%) were mood disorders [Table 3].

Female gender ($P = 0.04$), not living with parents ($P = 0.015$), and poor socio-economic status ($P = 0.00001$) were predisposing factors to violence among adolescent. The position in the family ($P = 0.075$), mothers education ($P = 0.7$), and urban-rural variance in place of resident ($P = 0.44$) were not predisposing factors to adolescent violence [Table 4].

DISCUSSION

Approximately, 87% of the sample of adolescents had experienced at least one form of violence, 57.2% occurred at home, 44.2% were by relatives and 49.2% were recent within the last six months. This qualified most of the violence acts against adolescents to be domestic violence. Domestic violence is the intentional and persistent abusive treatment of any family member by another in the home in a way that leads to pain, distress, and injury.^[16] The WHO definition of domestic violence as the range of abuse used against women by male intimate partners, has taken focus from adolescent males and females who are also disproportionately affected. Most previous evaluations of domestic violence have focused on partner-related physical assaults and rape on women.^[17,18] There is gross under-reporting and nondocumentation of domestic violence against adolescents. Failure to recognize the impact of domestic violence against adolescents means that the required public enlightenment to remedy the situation through counseling will not be effectively implemented. Thus most adolescents may become socialized in violent behavior and consider violence as normal. An abused adolescent may grow up with social maladjustment, engage in relationships

Table 2: Actions taken and actions considered appropriate to be taken in event of violence

Variables	Action taken after the abuse (n=626), n (%)	Appropriate action to be taken (n=692), n (%)	χ^2	P
Told parents	424 (67.7)	445 (64.2)	63.8	0.00001
Told friend	69 (11.2)	35 (4.9)		
Went to hospital	43 (6.7)	80 (11.3)		
Reported to the police	34 (5.4)	91 (13)		
Reported to welfare	8 (1.3)	48 (6.9)		
Took to court	17 (2.6)	27 (3.8)		
Did nothing	82 (13.1)	42 (6.1)		
Took other actions	43 (7)	34 (4.9)		

Table 3: Impact of adolescent violence on their mental health

	n (%)
How did you feel about the violence incident? (n=575)	
Not distressed	107 (18.70)
Moderately distressed	130 (22.50)
Highly distressed	163 (28.40)
Very highly distressed	175 (30.40)
Did you suffer any of the under listed consequences due to the violence or fear of violence? (n=623)	
Yes	366 (58.70)
No	257 (41.30)
Which of these consequences did you suffer due the violence or fear of violence? (n=366)	
Poor concentration in class	151 (41.30)
Depression	96 (26.10)
Anxiety	76 (20.70)
Truancy	38 (10.30)
Drop out of school	28 (7.60)
Posttraumatic stress disorder	26 (7.10)
Suicidality	14 (3.80)
Join gang	14 (3.80)
Sexual transmitted disease	10 (2.70)
Pregnancy/impregnated someone	6 (1.60)
Does any of these behavioral apply to you? (n=623)	
Yes	214 (34.40)
No	409 (65.60)
Does any of these apply to you? (n=214)	
I) Mental disorder (mood disorder) (n=172)	172 (80.40)
Ia: So sad that nothing could cheer up	91 (52.90)
Ib: Restless	37 (21.50)
Ic: Hopeless	27 (15.70)
Id: Nervous	21 (12.20)
Ie: Doing everything was an effort	13 (7.60)
If: Worthless	5 (2.90)
II) Self-harm	120 (56.00)
III) Alcohol use	37 (17.30)
IV) Drugs	37 (17.30)
V) Sexual transmitted disease	15 (7.00)
II) Smoking	9 (4.20)

with an aggressive mode or often may become withdrawn, reluctant to go into intimate relationships.

Furthermore, the proportion of adolescents that have been sexually abused was 10.2%. This is higher than the reported 4.6% of adolescent girls in southwestern Nigeria that have experienced rape^[19,20] and lower than the 18.1% police report.^[21] There may be explanations for the difference in the findings. Stigmatization associated with rape can be a potential reason for under-reporting.

According to a study in Kenya, training on self-defense skills especially for girls in Kenya has reduced the incidence of rape significantly.^[22] Furthermore, the studies considered only rape cases which involves proof of penile penetration of vagina without consent^[23] excluding other forms of sexual harassment like fumbling and touching of genitals and breasts.

Sexual abuse occurs in homes, in schools, religious institutions. The vast majority of perpetrators come from the child's immediate environment.^[24] The reported high incidence of violence at home, and by relatives highlight the hostility most of these adolescents live in, being constantly surrounded by victims and abusers. This has both immediate and future complications, Adolescents who are victims of violence are more likely to perform the role of an abuser in future, may not even realize the magnitude of distress and pain they will be causing their victims. This study reported violence to be associated with very high distress, similar to other reports.^[25] Unfortunately, most of these victims' reactions to these stressful acts are not adequate. This study revealed that the actions these victims of violence took, varied significantly from the action they considered appropriate. Could this be due to acceptance of violence as the event to keep from outsiders?^[26-29] This sense of acceptance is linked to the perpetration of violence among adolescents.^[27,28] In this study, most of the violence were at home and the majority reported the case to their parents without involving the social welfare or police. The reason(s) to this finding requires further evaluation. The identity of the abusers beyond being relatives, friends, or strangers, were not explored in this study, however we found that majority reported

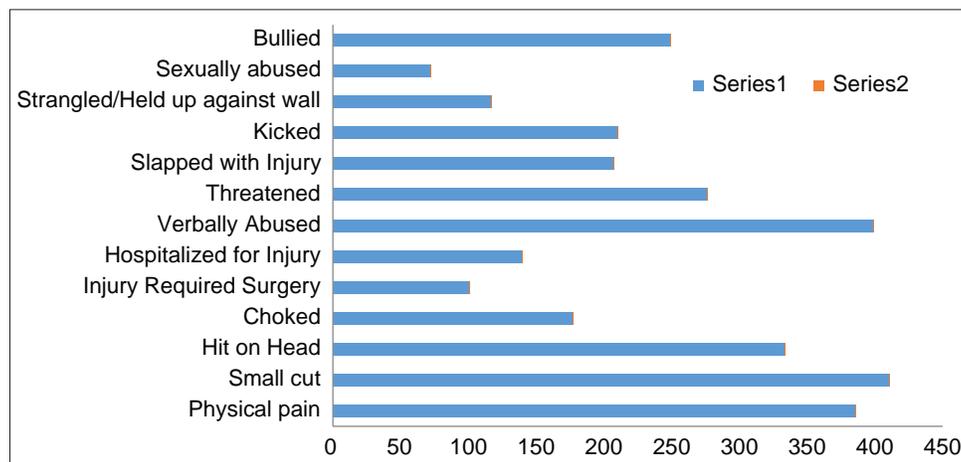


Figure 1: Difference acts of violence experienced by the adolescents

Table 4: Predisposing factors to violence among adolescent

Variables	n	Nonexperienced violence, n (%)	χ^2	P
Gender (n=716)				
Male	189 (83.3)	38 (16.7)	4.1385	0.042
Female	434 (88.6)	55 (11.4)		
Position in the family (n=674)				
1 st child	161 (91)	16 (9)	5.1792	0.075
2 nd or 3 rd child	251 (86.3)	40 (13.7)		
4 th child or below	171 (83)	35 (16)		
Mother's education (n=480)				
None or primary level	20 (91)	2 (9)	0.7166	0.6989
Secondary level	160 (89.4)	19 (10.6)		
Tertiary level	243 (87.1)	36 (12.9)		
Lives with parents (n=716)				
Yes	480 (85.4)	82 (14.6)	5.9329	0.015
No	143 (92.9)	11 (7.9)		
Place of resident (n=716)				
Urban	473 (86.5)	74 (13.5)	0.5969	0.4398
Rural	150 (88.8)	19 (11.5)		
Socioeconomic quartiles (n=716)				
Poorest	163 (91.1)	16 (8.9)	38.6809	0.00001
Very poor	161 (89.9)	18 (10.1)		
Poor	161 (89.9)	18 (10.1)		
Least poor	128 (71.5)	51 (28.5)		

to their parents, and there was a higher incidence of violence among adolescents not living with their parents due to possible lack of adequate parental care and supervision. Furthermore, there is no significant difference in the incidence of violence on adolescents with regards to their position in the family, downplaying elder siblings as a major factor in violence. There is a need for closer monitoring when co-habiting with other extended family members as well as in the school.

Mental illness was high among adolescents that had experienced violence, and this was very significant from the psychiatric perspective. The mental illness has been documented as a risk factor for and consequence of adolescent violence perpetration.^[30] A source of serious concern due to its likelihood of becoming a persistent health challenge if the act of violence is sustained and the victim is not counselled and rehabilitated early. Violence/abuse correlates with both functional and structural cerebral alterations in future.^[31-33] The injuries are not only physical but emotional. The anger and stress experienced by victims may lead to depression and other emotional disorders sometimes leading to suicide^[34] Victims may also exhibit harmful health behaviour like excessive smoking, alcohol abuse, use of drugs, and engaging in risky sexual activity. This was reported also in this study, mental health challenges, abuse of drug, and or alcohol were more of side effects, rather than a factor in creating violence. Though the removal of these vices will not stop violence, an important consideration in the design of violence control interventions.

The prevalence of violence was significantly high among the females ($P = 0.042$), adolescents not living with parents ($P = 0.015$), and adolescents from poor socioeconomic

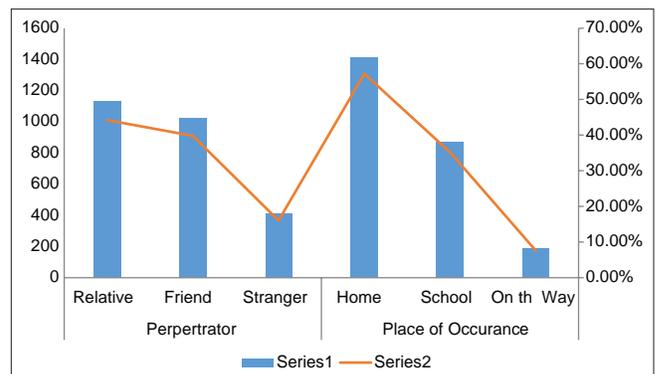


Figure 2: The perpetrators of violence and sites where the violence events took place

status ($P = 0.0001$). Studies have shown being dependent and economically vulnerable as major factors to violence. Poverty is a multidimensional state of deprivation involving lack of basic requirements, political and social exclusion, and lack of education.^[35] It also entails state of having insufficient income or resources and can extend to a lack of basic human needs, like adequate and nutritious food, clothing, housing, clean water, and health services. Poverty even in its modest levels can deprive people from maximizing their potential. The resultant frustration can manifest in a form of violence.^[36]

There is a need to design and implement proven strategies effective in preventing abuse of children such as^[37] counselling for parents at every opportunity, planned home visits, sexual abuse prevention programs, and systemic interventions.^[24] Efforts should be channeled towards supporting adolescents

to develop healthy, respectful, and violent-free relationships and interactions. In addition, more focus needs to be put on the development of programs increasing the ability of adolescents and young adults to improve their negotiation and interpersonal skills and to engage in noncontrolling relationships. These skills should be taught in schools and other self defense youth programs. It is important that youth starts early to learn the skills needed to create and maintain healthy relationships, especially how to manage feelings and healthy communication skills. This is very important considering that verbal abuse was among the highest abusive incident.

The study has limitations, among which is not evaluating the cost implication of violence among adolescents. Any intervention aimed at reducing violence will come at its cost, knowledge on the cost of violence will be driven toward allocating resources to such programs. Another limitation is not evaluating the predisposing factor to violence from the adolescent perspective. Such information will help in the design of an effective intervention that can reduce violence amongst adolescents.

CONCLUSION

The group program for parents is a service system aimed at adolescent violence in the home, based on the assumption that adolescents are mere victims and not abusers. Failure to engage adolescents in treatment programs will mean losing valid chance to respond to the risk factors and concurrent contributors to adolescent violence. Also, the opportunity to prevent them from being abusers in their future relationships will be lost. Adolescents tend to fall through the cracks, due to challenges in engaging them. Responding to adolescents and parents pairs, facilitates family reparation and the rebuilding of family relationships, with its resultant protective factor against other at-risk behaviors. Youth centers and youth support groups can provide educative and skill acquisition opportunities for adolescents. Furthermore, intervention to reduce violence should target improvement in poverty indices through effective alleviation programs to lift many families out of poverty and empower them to care for their children.

Ethical consideration

The protocol was reviewed and ethical approval obtained from the Hospital Health, research, and Ethics Committee of the University of Nigeria Teaching hospital Ituku/Ozalla Enugu. The Ministry of Education of Abia State, gave approval for the study to be conducted in the state. The Principals or the proprietors of the selected schools gave approval for their school to be used as the site of the study. Consent letters and information letters were given to the parents of the adolescents to give their consent for their children to participate in the study. The adolescents gave assent before participating in the study.

Availability of data and materials

The data used in the current study are available from the corresponding author on reasonable request.

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Conflicts of interest

There are no conflicts of interest.

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