

Violence and Mental Health among Adolescents in South East Nigeria

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Keywords: Adolescent, Violence, Mental Health, Southeast, Nigeria

Posted Date: June 11th, 2021

DOI: <https://doi.org/10.21203/rs.3.rs-551613/v1>

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Abstract

Background

There is rise in the prevalence of mental health illnesses among the adolescent and the impact of violence on this rising trend requires to be evaluated. This is the aim of this study.

Methods.

The study was a cross-sectional school based study. Adolescents in the selected schools were interviewed using structured questionnaire. Information on the previous experience of violence, the action they took, and the effect on them were collected. Data was entered and analyzed using SPSS. Significant was set at the p-value of <0.05.

Results

A total of 716 adolescents were involved in the study. The prevalence of violence was 87%. About 57.2% of the violence occurred at home, 44.2% done by relatives and 49.2% within the past 6 months. Sexual abuse was 10.2%. Among the adolescents that experienced violence, 58.7% suffered some form of mental health illness(es). There was significant difference between the action the adolescents took after the violence incident and the action their considered appropriate ($p=0.00001$). Female gender ($p=0.042$), not living with parents ($p=0.015$) and poverty ($p=0.00001$) significantly correlate with adolescent violence.

Discussion and Conclusion.

Violence is high among adolescent and associated with high prevalence of mental health illnesses. Intervention to reduce violence should target improvement in poverty alleviation programs to empower families to carter for their children should be implemented.

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 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 prevention of violence against adolescent remain low or nonexistent in most LMICs. This may be attributed to lack of consciousness on the impact of violence against adolescent especially with regards to mental health. Highlighting the prevalence of violence

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

Adolescent worldwide are faced with tremendous mental health challenges; a growing problem and a leading public health concern. The prevalence of mental health illnesses among adolescent ranges between 13.4% and 49%. [9–10] Little is known about the impact of violence against adolescent 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 adolescent, but not the other way round. Understanding the impact of violence against adolescent on their mental health will help facilitate more structured interventions for the prevention of mental health illnesses among adolescent in Nigeria. The design of an implementable preventive strategies which can promote healthy relationships, and optimal developmental outcomes, aim at reducing violence against adolescent, requires more evidence on what factors predispose adolescents to increased risk of violence [13] It is crucial to have better understanding of the extent of mental health burdens from violence against all adolescents. This may be a needed information for decision to allocate resource towards design and implement an efficient intervention that will ameliorate the burden of violence against adolescents.

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 adolescent 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 Adolescent that have experienced violence was based on: the proportion of adolescent (10 years to 19 years) who had experienced violence is 28%, and proportion that suffer some consequences of 30% at 95% CI 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 sample size required based on the above assumptions.

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

Study Design

The study was a school based. A total of 6 schools were surveyed; 3 public and one private in the urban and 2 public in the rural. It was an expanded pilot study. The secondary schools in the selected area were randomly selected and 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. Also information on their actions, and the mental health illnesses associated with the violence, and their ownership of household items were obtained.

Data analysis. The SPSS version 20 was used for data entry. The chi-square and p-values were calculated for discrete variables. 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 SD age of the respondents was 13.8 ± 3.5 years. 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 6 months from the time of interview. The respondents who knew someone that has experienced violence were 444 (62.2%). The proportion that have been sexually abused were 72 (10.2%). See Table 1.

Table 1
Socioeconomic demographics of the respondents

| Variables | N | % |
|---|----------------|-------|
| Age in years | | |
| Mean \pm SD) | 13.8 \pm 3.5 | |
| Median age in 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) | | |
| 1st Child | 177 | 26.2% |
| 2nd or 3rd Child | 291 | 43.3% |
| 4th & 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 6 months from date | 1296 | 49.2% |
| More than 6 months ago | 1342 | 50.8% |

| Variables | N | % |
|--|-----------------|-------|
| Do you know any other person that has suffered violence? (n=714) | 444 270 | 62.2% |
| Yes | 72 | 37.8% |
| No | 636 | 10.2% |
| Any form sexual abuse (n = 708) | | 89.8% |
| Yes | | |
| No | | |
| Socio-Economic Quartile (n = 716) | 179 179 179 179 | 25% |
| Poorest | | 25% |
| Very Poor | | 25% |
| Poor | | 25% |
| Least Poor | | |

Out of the 1296 case 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. See Fig. 1.

Relatives, friends, and strangers were the perpetrators of the violence against adolescent 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. See Fig. 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 regards to appropriate actions to take, those who consider 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 between the action they took and the appropriate action they would have taken. See Table 2.

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

| Variables | Action taken after the abuse; n = 626 (%) | Appropriate action to be taken; n = 692 (%) | χ^2 | p-value |
|------------------------|--|--|----------------------------|----------------|
| 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%) | | |

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. Post-traumatic stress disorder (14, 3.8%) and suicidality (14, 3.8%) were the least mental health disorder associated with adolescent violence. Those who suffered behavioral changes were 214 (34.4%), out of which 172 (80.4%) were mood disorder.

Table 3
Impact of Adolescent Violence on their Mental Health.

| | n | % |
|---|-----|--------|
| How did you feel about the violence incident? (n = 575) | | |
| No 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% |
| Post-Traumatic 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 applies to you? (n = 623) | | |
| Yes | 214 | 34.40% |
| No | 409 | 65.60% |
| Does any of these applies to you? (n = 214) | | |
| I) Mental Disorder (Mood disorder)(n = 172) | 172 | 80.40% |
| la: So sad that nothing could cheer up | 91 | 52.90% |

| | n | % |
|------------------------------------|-----|--------|
| 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% |

Female gender ($p = 0.04$), not living with parents ($p = 0.015$), and poor socio-economic status ($p = 0.00001$) were predisposing factor to violence among adolescent. An adolescent female is more likely to experience violence compared to a male counterpart ($p = 0.04$). 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. See Table 4.

Table 4 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. See Table 4.

| Variables | Experienced Violence | Non-Experienced Violence | χ^2 | <i>p</i> -value |
|---|----------------------|--------------------------|----------|-----------------|
| 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) | | | | |
| 1st Child | 161(91%) | 16 (9%) | 5.1792 | 0.075 |
| 2nd or 3rd Child | 251 (86.3%) | 40 (13.7%) | | |
| 4th 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%) | | |
| Socio-Economic Quartiles (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%) | | |

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 6 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.[15] The WHO definition of domestic violence as the range of abuse used against women by male intimate partners, has taken focus from adolescent male and female who are also disproportionately affected. Most previous evaluations of domestic violence have focused on partner-related physical assaults and rape on women [16, 17] There is gross under reporting and non-documentation of domestic violence against adolescents. Failure to recognize the impact of domestic violence against adolescents means that required public enlightenment to remedy the situation through counselling 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 rusting issue, engage in relationships with an aggressive mode or often may become withdrawn, reluctant to go into intimate relationship.

Furthermore, the proportion of adolescent that have been sexually abused were 10.2%. This is higher than the reported 4–6% adolescent girls in southwestern Nigeria that have experienced rape [18, 19] and lower than the 18.1% police report. [20] There may be explanations for difference in the findings. Stigmatization associated with rape can be a potential reason for under-reporting.

According to study in Kenya, training on self-defense skills especially for girls in Kenya has reduced the incidence of rape significantly.[21] Furthermore, the studies considered only rape cases which involves proof of penile penetration of vagina without consent [22] 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. [23] The reported high incidence of violence at home, and by relatives highlight the hostility most of these adolescent 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 report. [24] Unfortunately, most of these victims' reactions to these stressful act 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 event to keep from outsiders? [25, 26, 27, 28] This sense of acceptance is linked to perpetration of violence among adolescent. [26, 27] In this study most of the violence were at home and 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 stranger, were not explored in this study, however we found that majority reported to their parents, and there was higher incidence of violence among adolescents not living with their parents. Furthermore, there is no significant difference in the incident of violence on adolescent with regards to their position in the family, downplaying elder siblings as a major factor in violence. There is need for closers monitoring when co-habiting with other extended family members as well as in the school.

Mental health illnesses was high among adolescents that had experienced violence, and this was very significant from the psychiatric perspective. The mental health illnesses has been documented as a risk factor for and consequence of adolescent violence perpetration. [29] 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 not counselled and rehabilitated early. Violence/abuse correlates with both functional and structural cerebral alterations in the future [30–32] 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 [33] Victims may also exhibit harmful health behavior 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 effect, rather than a factor in creating violence. Though removal of these vices will not stop violence, but an important consideration in the design of violence control interventions.

The prevalence of violence was significantly high among the female ($p = 0.042$), adolescent not living with parents ($p = 0.015$) and adolescent from poor socioeconomic 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. [34] It also entails state of having insufficient income or resources and can extends to 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 potentials. The resultant frustration can manifest in a form of violence. [35]

There is need to design and implement proven strategies effective in preventing abuse of children such as [36] counseling for parents at every opportunity, planned home visits, sexual abuse prevention programs, and systemic interventions.[23] 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 non-controlling relationships. These skills should be taught in schools and other 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 communicate 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 adolescent. Any intervention aimed at reducing violence will come at its cost, knowledge on the cost of violence will be driven towards allocating resource 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 adolescent.

Conclusion

The group programs 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. Valuable as it may, but failure to engage adolescents in treatment programs will mean losing valid chance to respond to the risk factors and concurrent contributors to adolescent violence, as well as the opportunity to prevent them from being abusers in their future relationships. 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. 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 carter for their children.

Declarations

Ethical Consideration: The protocol was reviewed and ethic approval obtained from the Health Hospital, 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 letter 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 ascent to before participating in the study.

Authors' contribution and Consent for publication:

All authors contributed significantly and hereby give consent for the publication of the work

Availability of data and materials: The data used in the current study are available from the corresponding author on reasonable request.

Funding: The study did not have any external funding.

Conflict of Interest: The authors declare no conflict of interests.

Acknowledgement: We the authors are grateful to the Ministry of Education and Ministry of Health of Abia State that gave approval for the study to be conducted in Umuahia. We also thank all the school principals and proprietor who grant us access to conduct the study among their students. We are also thankful to the resident doctors of Federal Medical center Umuahia that assisted with the field work (Dr Iwegbulam Chimaobi, Dr Udeaku Madu, Dr Nwala, Dr Orji-Onuoha Stella, Dr Ekekwe).

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Figures

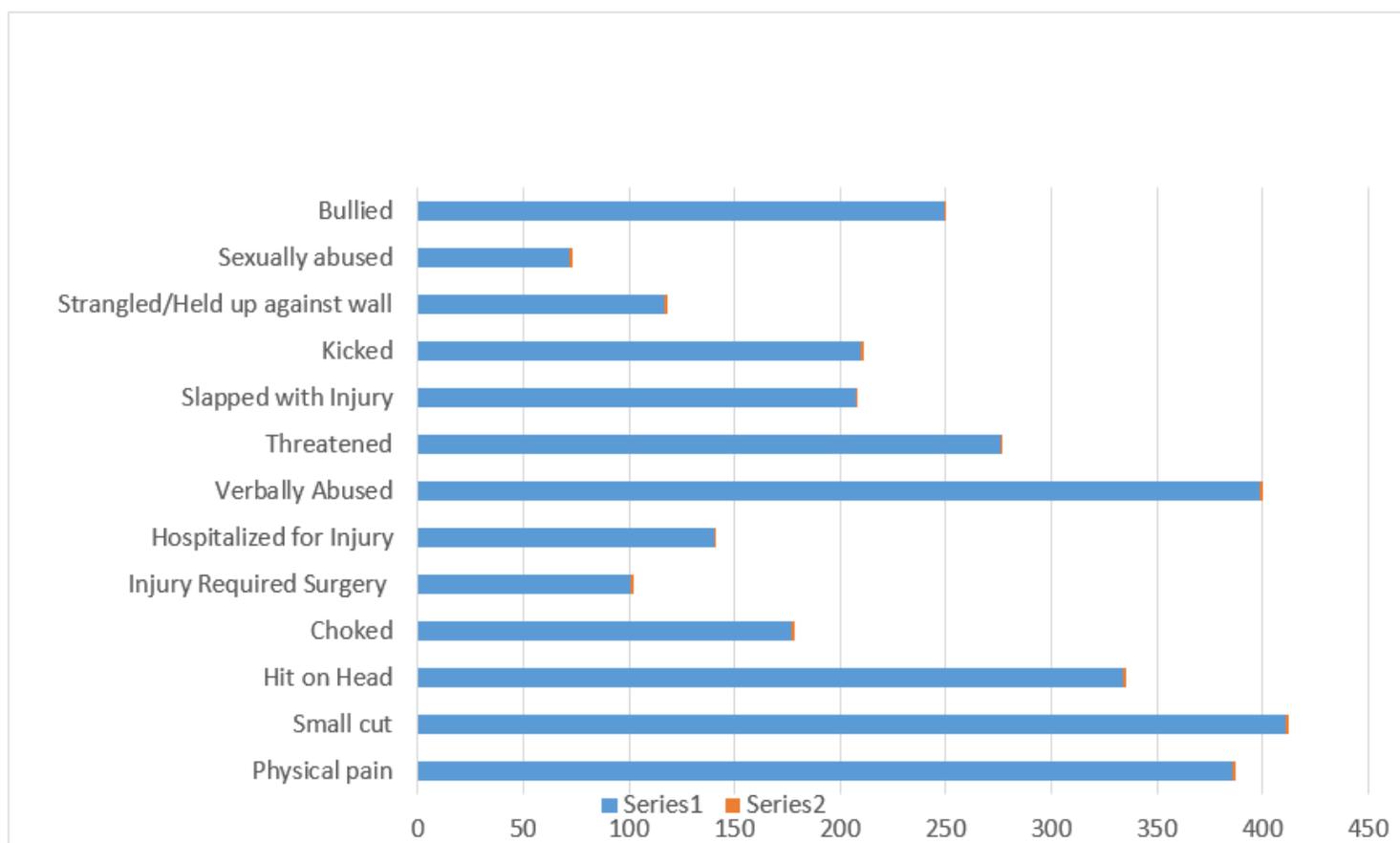


Figure 1

Difference acts of violence experienced by the adolescents.

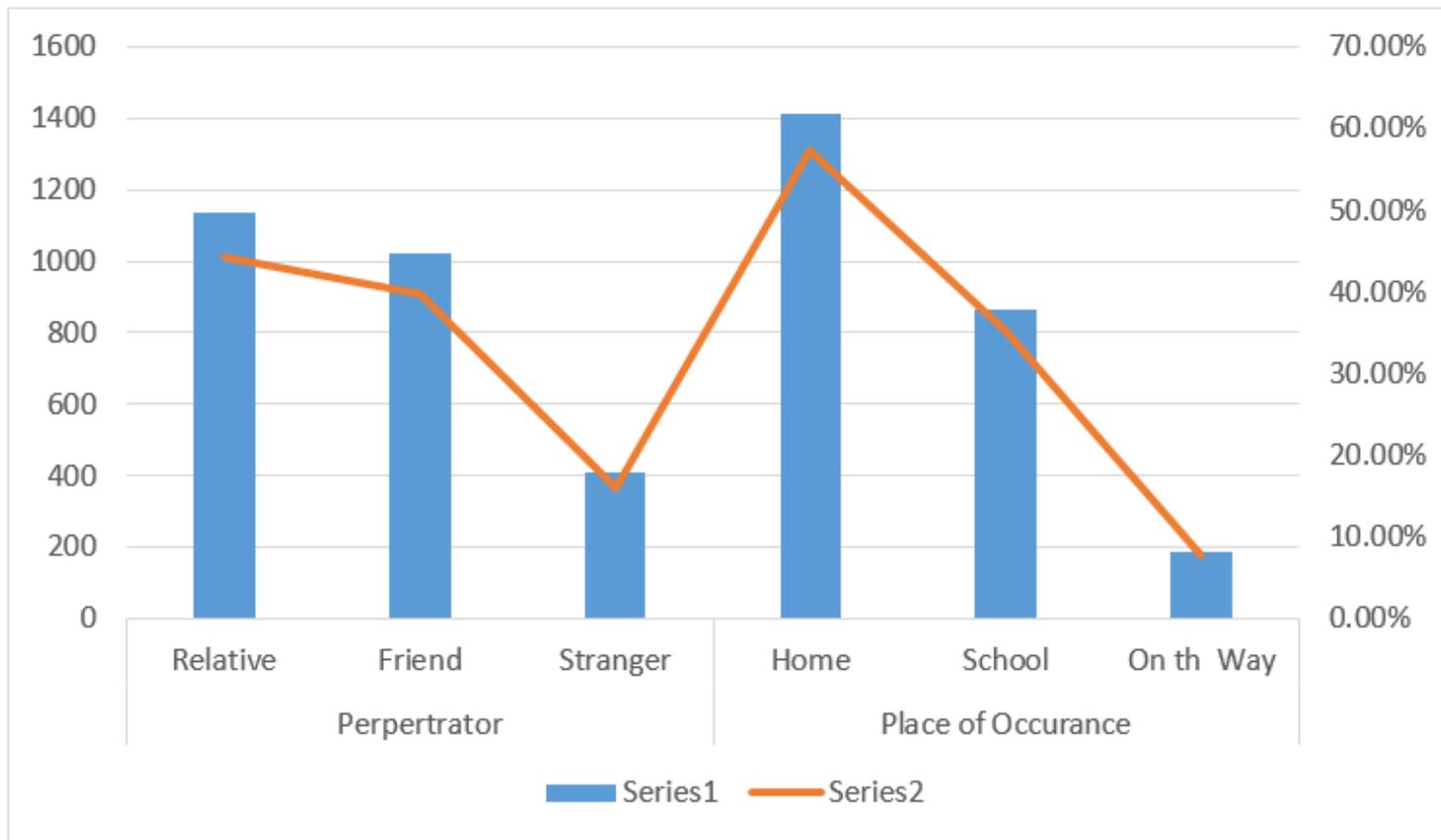


Figure 2

The perpetrators of violence and sites where the violence events took place.