

CHILDHOOD EXPERIENCES AND FACTORS ASSOCIATED WITH PERPETRATION OF VIOLENCE AMONG YOUNG ADULTS IN DELTA STATE PRISONS

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ABSTRACT

Background: Violent acts perpetrated by young people can cause physical and psychological harm to others and is of serious public health concern. This study was conducted to determine the prevalence of childhood trauma, and to assess the relationship between adverse childhood experiences and other predicting factors, and the perpetration of violence among young adults in Delta state prisons.

Method: A descriptive cross-sectional study design was conducted amongst 293 youths who were convicted prison inmates in Delta State Correctional facilities. Three out of the five facilities in Delta State were selected using simple random sampling, after which a total sampling of incarcerated inmates from the three selected facilities was carried out. Data were collected using the; Childhood Trauma Questionnaire (CTQ) to measure adverse childhood experiences, and a proforma to classify the offence of the inmate (whether violent or non-violent).

Result: The mean age of the respondents was 28.4 ± 5.4 years. The overall prevalence of childhood trauma was 5.1%. The most common abuse/neglect experienced while growing up was physical neglect with 26.3% followed by emotional neglect (20.5%), physical abuse (7.2%), emotional abuse (2.4%) and sexual abuse (1%). The prevalence of violent offences was 46.1%. Age, (OR=0.3; CI= 0.2-0.6, p=0.001), attaining primary education (OR=3.4; CI= 1.5-7.8, p=0.004) and having witnessed violence while growing up (OR=2.0; CI= 1.2-3.3, p=0.007) were all significant predictors of the perpetration of violence.

Conclusion: The overall prevalence of childhood trauma was low; however, the perpetuation of violence was found to be high in this study. Further research is required to develop study instruments for childhood trauma that are more context specific bearing in mind local sociocultural practices.

Keywords: Childhood trauma, Perpetration of violence, Young people, Witnessing violence

INTRODUCTION

Youth violence has been studied from different aspects so as to determine the major predictors behind its perpetration, and it has been heavily linked to mental health.¹ Adverse childhood experiences have been thought to be associated with the tendency of perpetrating of violence because of the likelihood of the event to trigger violent behavior much later in the life of the individual.²

However, the way traumatic events in childhood tend to affect individuals or trigger violent tendencies as the individual develop is not be fully understood. Exposure to childhood trauma could affect development of cognitive, emotional, and social domains; affecting mental health and educational outcome³. Studies have shown that, the exposure to

more than one childhood trauma has been linked to a higher tendency of later self-harm or violence.^{4,5,6}

In Nigeria, the occurrence of violence or the proportion of conflict events such as terrorism, land or resource access, cultism/criminality, religious, political, or ethnic related, and personal disputes in household and community levels was studied in North-East, North-Central and South-South; of which was seen to be at: 9.6% and 9.6%, 17% and 14%, and 16.5% and 25.3% respectively. And these events include being robbed, abducted, physically attacked, dwelling/assets destroyed, injured, killed etc.⁷.

Exposure to childhood trauma was correlated positively with psychotic symptoms and higher levels

of depression, anxiety and stress; It has been linked with substance abuse, mental conditions and other risky behaviors⁸; and all these are predisposing factors for violence perpetration which could most likely occur in the later stage of life, of an individual⁶. Victimization, witnessing violence and friends' behavior contributes directly to violent behavior⁹. The perpetration of violence is at its extreme at the adolescent stage, though it may persist into adulthood for few, perhaps as a result of emotional and behavioral dysfunction, cognitive impairments or deficient responding in aversive stimuli.¹⁰ Youth violence results in rise of cost of health, welfare, and criminal justice and inevitably results in the diminishing of productivity, and value of property; and for every violence that result in death, almost twice that number are severely injured and require medical attention.¹¹ Also, the prison is an area where persons with known violent behavior are aggregated consequently, conducting the study among inmates would aid the research rather than a cross section of the general public.¹²

Understanding the relationship between the experience of trauma during childhood and violence perpetration, would provide the necessary information required to identify and strengthen its protective factors while eliminating its risk factors thereby helping to reduce subsequent perpetration of violence that is of serious consequences for its victims and communities.¹³ While studies on childhood traumatic experiences and its relationship with substance use, psychiatric disorders, and psychosocial wellbeing is well known^{14,15,16}, not much is known about the relationship between childhood trauma and the perpetration of violence in Nigeria. Therefore, there is the need to conduct this study to fill this knowledge gap. Hence the aim of this study is to examine the relationship between childhood experiences and factors associated with the perpetration of violence amongst young adults in Delta State prisons.

CONCEPTUAL FRAMEWORK

Figure 1 shows a graphical conceptual framework for a mixed methods study that show the relationship between childhood trauma and the perpetuation of violence later in life. In examining literatures or bodies of work on childhood trauma, the connection between it and violent tendencies have been shown repeatedly irrespective of gender; however, the level of exposure has also majorly influenced the outcome of childhood trauma.⁵ Childhood trauma consists of a wide range of events that can impact an individual which include; physical abuse, emotional abuse, sexual abuse, physical neglect and emotional neglect that stems directly from the immediate environment of an individual. Also, other

sources of trauma could include death of loved ones, witnessing violence or conflicts, poverty etc.

However, certain factors act as mediators in the life of an individual and could either act as a positive coping mechanism or further amplify the individual tendency of being violent. These mediators include; family experience, social support, etc. when the mediators positively influence the individual, it helps the individual develop mental resilience, mental strength, persistence etc. However, when the mediating effects negatively impacts the life of the individual the results could be devastating, resulting in issues such as; post-traumatic stress (PTSD), suicidal ideation, social delinquency and anger management issues etc. These behaviours could be precursors to violent perpetration in an individual.

METHODOLOGY

Study area

The study was conducted in prisons in Delta state. Delta state is located in the South-south geopolitical zone in Nigeria; with an estimated area size of 17,108 square kilometers and a population of approximately 4,112,445 as at last census in 2006. It's capital is Asaba and it is on the northern end of the state.¹⁷

Delta State has five correctional facilities which are located in; Warri, Ogwashi-uku, Kwale, Sapele, and Agbor.¹⁸ The capacity of Delta State Correctional facilities is 1109 inmates; however, it is overstretched with a prison population of 3,236 inmates in 2016 which is three times its capacity; The total number of prison inmate population in Delta State is 3,236, comprising of 3,184 males and 52 females; making up 6.04% of Nigeria's total prison inmate population¹⁹.

Study population

The study population are young male adults aged 18-35²⁰ who have been sentenced and are prison inmates. Also, the total number of unsentenced prison inmates as at 2014 is 1,970.¹⁹ The facilities are overcrowded due to the number of inmates awaiting trial, which is almost five times the number of those who have actually been sentenced.¹⁸

Inclusion criteria

The participants for the study include those who are within the age 18-35 and have been sentenced.

Exclusion criteria

Inmates in solitary confinement would be excluded from the study

Study design

This study was conducted using a descriptive cross-sectional study design

Sample size

A total number of 293 participants were selected using formula for single proportion²¹. A one-stage sampling of all prison inmates that have been convicted was conducted from the selected prison facilities in the State.

Stage 1:

Three prisons out of the five were selected using a simple random technique. The selection of three prisons was carried out as this was adequate to achieve the required minimum sample size for the study. Subsequently, a total sampling of the prison inmates was done in the selected prisons (Warri, Ogwashi-Uku and Kwale prisons).

Study instruments:

The study instruments used are semi-structured interviewer's administered questionnaires, and the instruments employed for this study include a sociodemographic survey, Childhood Trauma Questionnaire (CTQ) and a proforma to classify the offence of the inmate.

The sociodemographic survey is a questionnaire designed by the researcher to measure the demographic features of the study participants in cognizance with the objectives of the study. These features include age, level of education, parent occupation, family size, parental upbringing, parental loss, history of family incarceration, witnessed violence while growing up and substance use.

Responses were scored using a 5-point Likert scale; (1) never true, (2) rarely true, (3) sometimes true, (4) often true, and (5) very often true. The CTQ is divided into five subscales to measure the following; emotional abuse, physical abuse, sexual abuse, emotional neglect and physical neglect, and a minimization scale to assess response bias. The minimum scores that were obtained from the CTQ and its subscales are 28 and 5; while the maximum scores that were obtained from the CTQ and its subscales are 140 and 25.

The scores obtained were classified based on a scale ranging from none/minimal to severe to extreme¹². It scores abuse/neglect using the following scale; none/minimal, low to moderate, moderate to severe and severe to extreme. While the minimization deniability scale is scored thus; 1 – 4 is rated 0, while 5 is rated as 1; hence is a when participant score >1, it is said to be positive to response bias²².

The proforma was also designed by the researcher to classify the offence of the inmate as either violent or non-violent offence. Offences classified as violent offences include; robbery, murder, kidnapping, assault, rape, attempted murder and aggravated assault. While non-violent crimes include; burglary, larceny, theft, motor vehicle theft, arson, shoplifting, and vandalism²³. Violent offences were scored one while non-violent offences were scored as zero.

RESULTS

A total of 293 responses were obtained from three prison facilities, giving this study a 100% response rate. Table 1 shows single responses of demographic characteristic of the participants of this study. The total number of prison inmates that participated in this study is 293. The age of the participants ranged between 18 – 35; and the mean age is 28.38 ± 5.36 . And of the total inmates, only 23.9% have had tertiary education with majority of them (45.1%) completing or stopping at the senior secondary level while the remaining 18.4% and 12.6% had Junior secondary and Primary education respectively.

Table 1: Socio-demographic characteristics of respondents

Demographic characteristics	N=293 N	%
Age		
18 – 24	70	23.9
25 – 30	112	38.2
31 – 35	111	37.9
Level of education		
Primary education	37	12.6
Secondary education	185	63.1
Tertiary education	71	24.2
Parent Occupation		
Unskilled	32	10.9
Semiskilled	27	9.2
Skilled Manual	158	53.9
Professionals	76	25.9
Family size		
≤ 6	138	47
> 6	155	53

The parental upbringing of the individuals that participated shows that 72.7% were raised by both parents, 21.5% were raised by single parents, and only 5.8% were raised by guardians, grandmother, uncles or other relatives. In addition, 65.9% of the participants have not lost any of their parents, 6.8% have lost both of their parents and 27.3% have lost a single parent, of which 37.5% lost their mother and 62.5% lost their

CONCEPTUAL FRAMEWORK

CONCEPTUAL FRAMEWORK SHOWING THE RELATIONSHIP BETWEEN CHILDHOOD TRAUMA AND PERPETUATION OF VIOLENCE

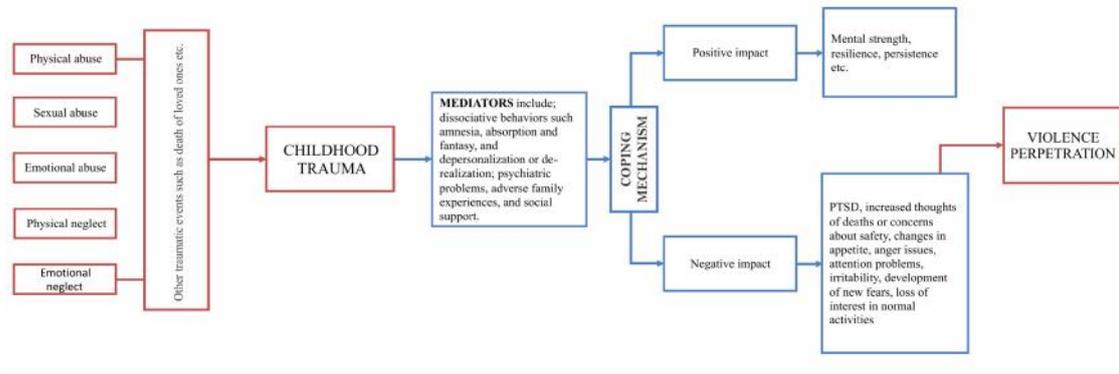


Figure 1: Conceptual framework showing the relationship between childhood trauma and perpetuation of violence.

father. Also, of history of any family member been incarcerated, 7.2% of the convicted inmates have at least one family member who have been incarcerated; 54.9% had witnessed one form of violence while growing up, and 39.2% abuse different substances.

About 44% of the participants had experienced one type of trauma, 33.4% had experienced two type of trauma, 11.6% had experienced three types of trauma while 5.1% and 2% had experienced four types of trauma and all types of trauma respectively. 5.8% of the study reported to have not experienced any form

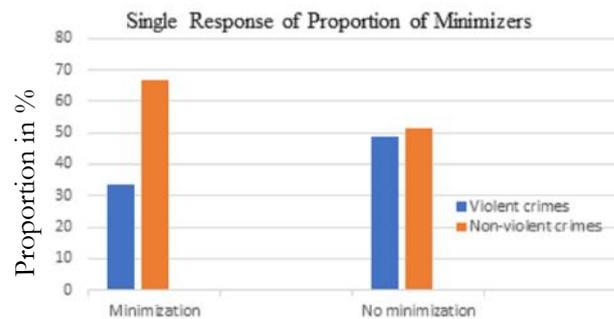


Figure 2: Proportion of minimizers among respondents

Table 2: Family characteristics of respondents

Demographic characteristics	N	%
Parental upbringing		
Both parents	213	72.7
Single parent	63	21.5
Others	17	5.8
Parental loss		
A parent	80	27.3
Mother	30	37.5
Father	50	62.5
Both parents	20	6.8
None	193	65.9
History of incarceration of any family member		
Yes	21	7.2
No	272	92.8
Witnessed violence while growing up		
Yes	161	54.9
No	132	45.1
Substance use		
Yes	115	39.2
No	178	60.8

Table 3: Classification of offences among respondents

Type of offence	N	%
Violent offences	135	46.1
Non-violent offences	154	53.9
Convicted violent crimes		
Armed robbery	45	15.4
Robbery	31	10.6
Murder	25	8.6
Kidnapping	14	4.8
Assault	8	2.7
Rape	5	1.7
Attempted murder	4	1.4
Aggravated assault	2	0.7
Convicted non-violent crimes		
Theft	83	28.3
Cyber crime	37	12.6
Fraud	14	4.8
Drug dealing	6	2
Crude oil theft	5	1.7
Burglary	4	1.4
Unlawful possession of arms	3	1
Cultism	2	0.7
Malicious damage	2	0.7
Money laundering	2	0.7
Vandalism	1	0.3

Table 4: Relationship between sociodemographic characteristics and the perpetuation of violence

Variables	Violence		Chi square (χ^2)	P-value
	Yes n(%)	No n(%)		
Age group				
18 – 24	20	50	12.361	0.002*
25 – 30	54	58		
31 – 35	61	50		
Have a child				
Yes	72(51.1)	69(48.9)	2.723	0.099
No	63(41.4)	89(58.6)		
Education				
Attained Primary education	111(43.4)	145(56.6)	6.018	0.014*
Attained Secondary education	91(45)	111(55)	0.275	
Attained tertiary education	25(35.7)	45(64.7)	4.45	0.035*

* statistically significant at 0.05

of trauma. In reviewing multiple responses of the various types of childhood; the most common abuse/neglect experienced while growing up was physical neglect with 26.3% followed by emotional neglect (20.5%), physical abuse (7.2%), emotional abuse (2.4%) and sexual abuse (1%). Also, figure 2 shows single

responses of the minimization/denial scale of the respondents. Of those who had positive minimization/deniability score, 33.3% had committed violent crimes while 66.7% had committed non-violent crimes. However, of those respondents that had negative minimization/deniability score, 48.5% had committed

Table 5: Relationship between family characteristics and the perpetuation of violence among the respondents

Variables	Violence		Chi square (χ^2)	P-value
	Yes n(%)	No n(%)		
Raised by both parents				
Yes	93(43.7)	120(56.3)	1.828	0.176
No	42(52.5)	38(47.5)		
Raised by a single parent				
Yes	36(57.1)	27(42.9)	3.957	0.047*
No	99(43)	131(57)		
Raised by others				
Yes	6(35.3)	11(64.7)	0.844	0.358
No	129(46.7)	147(53.3)		
Lost both parents				
Yes	8(40)	12(60)	0.319	0.572
No	127(46.5)	146(53.5)		
Lost the father				
Yes	28(56)	22(44)	2.390	0.122
No	107(44)	136(56)		
Lost the mother				
Yes	17(56.7)	13(43.3)	1.509	0.219
No	118(44.9)	145(55.1)		
Witnessed violence while growing up				
Yes	86(53.4)	75(46.6)	7.751	0.005*
No	49(37.1)	83(62.9)		
Substance abuse				
Yes	60(52.2)	55(47.8)	2.834	0.092
No	75(42.4)	103(57.9)		
Incarceration of family member				
Yes	10(47.6)	11(52.4)	0.022	0.883
No	125(46)	147(54)		

* statistically significant at 0.05

non-violent crimes although the remaining 51.5% had committed violent crimes.

Table 3 shows the classification of offences among the participants. The prevalence of non-violent offences is more than that of violent offences which are given as; 53.9% and 46.1% respectively. The various forms of violent offences consist of armed robbery (15%) which is the most frequent violent offence, followed by robbery (10.6%), murder (8.6%), kidnapping (4.8%), assault (2.7%), rape (1.7%), attempted murder (1.4%), and aggravated assault (0.7%). While for non-violent crimes the highest that were recorded were theft and cybercrime 28.3% and 12.6% respectively. While vandalism was the least (0.3%).

tertiary education (OR=3.397; CI= 1.478-7.808). Study participants who witnessed violence while growing up, had two times the odds of perpetuating violence compared to those who did not witness violence growing up (OR=2.00; CI= 1.207-3.332).

DISCUSSION

The prevalence of childhood trauma was low; however, this study showed that almost half of the study participants (44%) had experienced one form of childhood trauma. In another study conducted in Turkey amongst prison inmates, it was observed that the most prevalent and least form of abuse/neglect experienced are emotional neglect (29%) and emotional abuse (15%) respectively.¹² While the reason for the variation might not be clear, this might be due to

Table 6: Logistic regression analysis of predictors of the perpetuation of violence

VARIABLES	OR	95% CI		P-value
Age group				
18 – 24	0.296	0.117	0.411	0.000*
25 – 30	0.196	0.343	0.062	0.197
31 – 35	Ref	-	-	-
Education				
Attained Primary education	0.297	0.100	0.494	0.003*
Attained Secondary education	0.113	-0.023	0.248	0.103
Attained Tertiary education	Ref	-	-	-
Raised by a single parent				
Yes	1.363	0.744	2.498	0.316
No	Ref	-	-	-
Witnessed violence				
Yes	2.00	1.207	3.332	0.007*
No	Ref	-	-	-

Note: OR = odds ratio, CI = confidence interval

* statistically significant at 0.05

As seen in Table 4 attaining primary education was significantly associated with the perpetration of violence. This was also the case for tertiary education (p=0.014 and 0.046 respectively). Table 5 showed that being raised by a single parent and having witnessed violence while growing up as child was significantly associated with the perpetration of violence. (p = 0.005).

In Table 6, age, attaining primary education and witnessing violence while growing up were seen to be significantly associated with the perpetuation of violence. Those within the age of 18 – 24 were 0.3 times less likely to perpetuate violence than those in the age group of 31-35 (OR=0.296; CI= 0.155-0.571). Study participants whose highest level of education was primary education were more likely to perpetuate violence than those who had attained tertiary education. Participants with primary education had three times the odds of perpetuating violence than those with

underreporting of emotional and sexual abuse/neglect especially in the sociocultural environment this study was conducted in order to avoid stigmatization or fear of been referred to as less masculine.²⁴

Due to cultural practices and beliefs surrounding child rearing, childhood trauma is frequently perceived as normal. Corporal punishment is also seemingly acceptable and relatively typical practice when correcting an erring child and it is seen as normal disciplinary action or punishment in the Nigerian context; In many instances it is presumed to cause no harm but rather thought to be as a means of instilling good behavior in children.²⁵ This support the assertion that some forms of abuse are underreported or have been normalized in our society.

This study ensured response bias was assessed using the minimization/denial scale, and this study showed that one-third of the respondents who have positive

minimization/deniability score had committed violent offences. There has been more campaign over the last decade to ensure researchers using the Childhood Trauma Questionnaire, utilize the minimization scale.^{22,26}

The proportion of violence is higher in this study than in other studies that were reviewed, which might perhaps be as a result of other underlying factors that could affect the perpetuation of violence such as; high unemployment rate and widespread poverty etc.^{27,28}. The prevalence of violence perpetration in this study was 46.1% compared to 27.9% reported among prison inmates in the USA.²⁹

Other factors that were associated with perpetuation of violence among young adults from this study include; age group of the perpetrator between 18 – 24 years, low or no educational attainment and having witnessed violence while growing up. The age group with the highest proportion of violent offenders in this study, was 31 – 35 years. Out of 135 participants who were violent offenders, almost half of those (45.2%) were in the age group of 31–35. The increased likelihood of perpetration of violent offences with age has been corroborated by other studies as was seen in this study.^{30,5,12}

There are studies that have been conducted to shed insight on the trajectory of violent behavior amongst youth.^{31,32} While the studies point to the tendency of progressive increase in severity of violence from adolescence to early adulthood and a steady decline later in adult life, the age group for its peak and decline differ considerably.^{31,32,33} The factors that could be the reason for the variation in the trend is not fully understood, however, the age at which individuals begin to fend for themselves, take up responsibilities, influence of peer pressure, level of development of the environment, employment rate etc. are presumed to play a pivotal role in determining the type of crime and rate at which these crimes occur.³³

This study showed that individuals with higher level of educational attainment were less likely to perpetuate violence among young adults. This was corroborated by a study conducted in South Africa, where the odds of committing violent crimes decreased with years of education.³⁰ Studies support the positive impact education has in preventing the perpetuation of violence. This is due to the tendency of the individual to want to evaluate events, and make decisions based on logic, using his/her problem-solving skills while considering the outcome of the course of action chosen. Education influences the behavior of an individual positively greatly reducing the likelihood of violent behavior or the need to resort to violent

behavior in seemingly difficult situations that ordinarily would spark a violent reaction.^{2,34,35}

Witnessing violence as a child was found to be significantly associated with the perpetuation of violence among young adults in this study. The tendency of being violent increases with the amount of violence witnessed as a child while growing up. Thus, a child who has witnessed violence is more likely to be violent.³⁶ Other studies conducted have shown that witnessing violence has been linked to poor anger management, anti-social behaviour, and the perpetuation of violence.^{37,39,40,41,42}

Limitation of the study

The poor documentation in the prisons could have effect on the validity of information gathered. In order to address this, prison wardens were trained as research assistants for this study. This was done to improve the authenticity of information obtained from the study participants. Also, it is possible that the study instrument was not culturally sensitive enough to identify trauma in the African setting.

Conclusion and recommendations

Age group, level of education attained and witnessing violence while growing up were factors that were associated with the perpetuation of violence. None of the domains of childhood trauma was associated with violence perpetration and there is the need for a more sensitive instrument to better capture forms of adverse childhood experiences.

Government and caregivers should ensure that they continually provide the necessary support to encourage and enable young people to strive to attain the highest level of education, either formal education or informal education, so that they will be productive members of the society and positively impact their immediate surrounding.

Public enlightenment by the relevant government authorities, civil society organizations, non-governmental organizations, public health practitioners, psychiatrists and other relevant health personnel are to be embarked on to educate the public on the importance of mental wellbeing. This is to encourage help-seeking behaviours amongst the general public to promote prevention practices that will help reduce violence perpetuation among young people.

Also, it is possible that the study instrument was not culturally sensitive enough to identify trauma in the African setting, there is the need for researchers and relevant professionals to develop preventive strategies and measures for childhood trauma that are applicable

to our sociocultural context so that researchers can be more precise in measuring childhood trauma.

Acknowledgement

Funding

This study was self-funded

Conflict of interest

There is no conflict of interest regarding this study.

Ethical approval and consent to participate

Written Informed consent was obtained from all respondents and ethical approval was obtained from the Delta State ethics review board, under the Ministry of Health (HM/596/T/238).

Informed written consent

The participants were informed about the purpose, procedures and implications of the research. Written informed consent was obtained from consenting respondents. They were informed that participation is voluntary, and they are free to withdraw from the study at any time without reprisal.

Confidentiality

All information from the study will be kept confidential. Anonymity was maintained as no names were written on the questionnaires. Participants were identified by serial numbers only. Data has been used for research purposes and is kept confidential.

Non-maleficence

The study had the potential to cause minimal or no risk to the participants and this was clearly stated.

Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

REFERENCES

1. **Torjesen I.** Childhood trauma doubles risk of mental health conditions. *BMJ*, Volume 364, 2019, 1854.
2. **Wilkins N. et al.** Connecting the dots; An overview of the links among multiple forms of violence, Atlanta, GA: National Center for injury prevention and control, 2014.
3. **Magruder KM, McLaughlin KA, Borbon DLE.** Trauma is a Public Health Issue. *European Journal of Psychotraumatology*, 2017, 8(1).
4. **Dong M. et al.** The relationship of exposure to childhood sexual abuse to other forms of abuse, neglect, and household dysfunction during childhood. *Child Abuse and Neglect*, June, 27(6), 2003, 625-639.
5. **Webb RT. et al.** Self-harm and violent criminality among young people who experienced trauma-related admission during childhood: a Danish national cohort study. *Lancet Public Health*, 1 June, Volume 2, 2017, 314-322.
6. **Rebecca HB.** Getting to why: Adverse Childhood Experiences' Impact on Adult Health. *The Journal for Nurse Practitioners*, February, 15(2), 2019, 153-157.
7. **Azad A, Crawford E, Kaila H.** Conflicts and Violence in Nigeria: Results from the North-East, North-Central, and South-South zones, Nigeria: National Bureau of Statistics, Nigeria. 2018
8. **Duhig M. et al.** The Prevalence and Correlates of Childhood Trauma in Patients with Early Psychosis. *Australian and New Zealand Journal of Psychiatry*, 49(7), 2015, 651-659.
9. **Choe D, Zimmerman M, Devnarain B.** Youth violence in South Africa: exposure, attitudes, and resilience in Zulu adolescents.. *Violence and Victims*, 27(2), 2012, 166-181.
10. **Loeber R, Pardini D.** Neurobiology and the development of violence: common assumptions and controversies. *Philosophical Transactions of The Royal Society B*, Volume 363, 2008, 2491-2503.
11. WHO 2016. Youth Violence. [Online] Available at: www.who.int/news-room/fact-sheets/detail/youth-violence [Accessed 21 October 2018].
12. **Altintas M, Bilici M.** Evaluation of childhood trauma with respect to criminal behavior, dissociative experiences, adverse family experiences and psychiatric backgrounds among prison inmates. *Comprehensive Psychiatry*, Volume 82, 2018, 100-107.
13. **De Bellis M, Zisk A.** The Biological Effects of Childhood Trauma. *Child Adolesc Psychiatr Clin N Am*, 23(2), 2014, 185-222.
14. **Oladeji BD, Makanjuola VA, Gureje O.** Family-related adverse childhood experiences as risk factors for psychiatric disorders in Nigeris. *Br J Psychiatry*, Mar, 196(3), 2010, 186-191.
15. **Lawal OT, Abdulmalik JO.** Adverse childhood experiences and psychosocial wellbeing among pre-clinical medical students in a Nigerian University. *African Journal of Biomedical Research*, Volume 23, 2020, 47-52.
16. **Onu DU, Ifeagwazi CM, Orjiakor CT. et al.** Adverse childhood experiences and tramadol use in Nigeria: The mediating role of sociosexuality in a predominantly male student sample. *Journal of Substance Use*. 2020.
17. National Bureau of Statistics. Annual Abstract of Statistics, Nigeria: National bureau of statistics. 2011.

18. **Grace AR.** An assessment of prison overcrowding in Nigeria: Implications for Rehabilitation, Reformation and Reintegration of Inmates. *Journal of Humanities and Social Science*, March, 19(3), 2014, 21-26.
19. National Bureau of Statistics, 2016. Prison Statistics: Prison Population by Total Detainees, Prison Capacity and Number of Un-sentenced Detainees by State and Year and Prison Inmate Population by Gender, Nigeria: National Bureau of Statistics.
20. National Youth Policy, 2009. Second National Youth Policy Document of the Federal Republic of Nigeria, Nigeria: National Youth Policy.
21. **Kish L.** Survey Sampling. New York: Wiley. 1965
22. **MacDonald K. et al.** Minimization of Childhood Maltreatment Is Common and Consequential: Results from a Large, Multinational Sample Using the Childhood Trauma Questionnaire. *PLoS ONE*, 11(1), 2016, 1-16.
23. **Chinwoku EC.** Trends and Pattern of Violent Crimes in Nigeria: An analysis of the Boko Haram Terrorist Outrage. *Journal of Culture, Society and Development*, Volume 3, 2014, 8-16.
24. **Murray LK,** Nguyen A, Cohen JA. Child Sexual Abuse. *Child Adolesc Psychiatr Clin N Am*, 23(2), 2015, 321-337.
25. **Tunde-Ayinmode MF,** Adegunloye OA. Parenting style and conduct problems in children: A report of deliberate self-poisoning in a Nigerian child. *South African Journal of Psychiatry*, June, 17(2), 2011, 60-63.
26. **Church C.,** Andreassen OA., Lorentzen S. *et al.* Childhood Trauma and Minimization/Denial in People with and without a Severe Mental Disorder. *Frontiers in Psychology*, Volume 8, 2017, 1-7.
27. **Abdullahi AA.** A review of youth violence theories: Developing interventions to promote sustainable peace in Ilorin, Nigeria. *African Sociological review*, 20(2), 2016, 40-60.
28. **Idris I.** Youth unemployment and violence: Rapid literature review., Birmingham, UK: GSDRC, University of Birmingham. 2016.
29. **Muftic LR,** Smith M. Sex, Parental Incarceration, and violence perpetration Among a Sample of Young Adults. *Journal of Interpersonal Violence*, 2015, 1-23.
30. **Jonck P.,** Goujon A., Testa MR. *et al.* Education and Crime engagement in South Africa: A national provincial perspective. *International Journal of Educational Development*, Volume 45, 2015, 141-151.
31. **Shukia R.** Risk of Violence. Available at: web.archive.urban.org/publications/900403.html [Accessed 11 September 2020]. 2001.
32. **Lui J.,** Lewis G. Evans L. Understanding Aggressive Behaviour Across Life Span. *J Psychiatr Ment Health Nurs.*, 20(2), 2013, 156-168.
33. **Ulmer JT,** Steffensmeier D. The Age and Crime Relationship: Social Variation, Social Explanation. In: K. Beaver, B. Boutwell & J. Barnes, eds. *The Nurture Versus Biosocial Debate in Criminology: On the Origins of Criminal Behavior and Criminality.* s.l.:SAGE Publications Inc, 2014, 377-396.
34. WHO 2002. *Youth Violence*, Geneva: World Health Organization.
35. CDC 2019. *Preventing youth violence, USA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.*
36. **Brookmeyer KA,** Henrich CC, Schwab-Stone. Adolescents who witness community violence: Can parent support and prosocial cognitions protect them from committing violence? *Child Development*, 76(4), 2005, 917-929.
37. **Cohen MA,** Miller TR, Rossman SB. The Cost and Consequences of Violent Behavior in the United States. In: J. Albert J. Reiss & J. A. Roth, eds. *Understanding and Preventing Violence: Consequences and Control.* Washington, DC: The National Academic Press, 1994, 67-166.
38. **Kimonis ER,** Ray JV, Branch JR, *et al.* Anger Mediates the Relation Between Violence Exposure and Violence Perpetration in Incarcerated Boys. *Child Youth Care Forum*, Volume 40, 2011, 381-400.
39. **Weaver CM,** Borkoski JG, Whitman TL. Violence Breeds Violence: Childhood Exposure and Adolescent Conduct Problems. *Journal of Community Psychology*, 36(1), 2011, 96-112.
40. **Reckdenwald A,** Mancini C. Beauregard E. The Cycle of Violence: Examining the Impact of Maltreatment Early in Life on Adult Offending. *Violence and victims*, June, Volume 28, 2013, 466-482.
41. CFCA 2014. Effects of child abuse and neglect for adult survivors. [Online] Available at: aifs.gov.au/cfca/publications/effects-child-abuse-and-neglect-adult-survivors [Accessed 10 September 2020].
42. **Bush M.** Childhood adversity and trauma: an introduction. In: M. Bush, ed. *Addressing adversity: Prioritising adversity and trauma-informed care for children and young people in England.* London: YoungMinds Trust, 2018, 26-56.