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Economics and violence against children, findings from the Violence Against Children Survey in Nigeria

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Abstract

This study seeks to assess the impact of economic factors on sexual, emotional, and physical violence on Nigerian children and adolescents aged 13–24 years. Data collected from the Nigerian Violence Against Children Survey (VACS), a national, cross-sectional household survey of females and males aged 13–24 years were used to examine sexual, emotional, and physical violence victimization. Data were collected on household economic status, e.g., flooring and roofing materials, transportation. A poverty index was developed using the Simple Poverty ScorecardTM for Nigeria to determine the impact that economic factors have on these violence measures. Children aged 13–17 years in households with high economic status (ES) were 1.81, 1.78, and 4.91 times, more likely to experience sexual, emotional, and physical violence, respectively, within the last 12 months than those in the lowest ES. Individuals aged 18–24 years in households with high ES were 1.62 and 1.41 times more likely to experience emotional and physical violence, respectively, prior to age 18 than those in the lowest ES. Individuals aged 18–24 years in households with middle or high ES were 1.65 and 1.96, respectively, times more likely to experience physical violence prior to age 18 than those in the lowest ES. Highest tertile ES was significantly associated with sexual, emotional, and physical violence among Nigerians aged 13–24 years. Further research is needed to determine the cause of increased violence amongst high ES households. Targeted interventions towards this ES class are recommended to reduce violence against children in Nigeria.

Keywords

Child abuse; Nigeria; Violence against children; Poverty

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Conflict of interest

The authors have indicated that they have no potential conflicts of interest to disclose.

Disclaimer

The findings and conclusions in this report are those of the authors and do not necessarily reflect the official position of the Centers for Disease Control and Prevention.

1. Introduction

Violence against children is a global problem; recent estimates indicate that 1 billion children are exposed to violence annually (Hillis, Mercy, Amobi, & Kress, 2016). Research across varying contexts has established a strong association between violence that occurs during childhood and poor health outcomes across the lifespan- including sexual and reproductive health, mental health, and chronic disease outcomes (Arias, 2004; Brown et al., 2009; Felitti et al., 1998; Hillis, Anda, Felitti, Nordenberg, & Marchbanks, 2000; Maniglio, 2013; Molnar, Berkman, & Buka, 2001; Sigurdardottir, Halldorsdottir, & Bender, 2013; Sousa et al., 2011). While the evidence for the link between income and violence victimization of children in the United States is more limited, there is evidence for the link between child abuse and income when the perpetrator is a parent or caregiver (Freisthler, Merritt, & LaScala, 2006). Further, the Adverse Childhood Experiences literature has shown a link between adverse experiences in childhood (violence being one) and low economic status (ES) (Child Trends, 2013). There is a lack of evidence on the relationship between violence against children and ES in low- and middle-income countries, particularly in Africa.

Violence against children is a serious public health problem in Nigeria. A 1991 situational analysis sampled 300 Nigerian children from schools in three cities and found that 53% reported severe punishment from parents and 9% reported receiving medical care after physical violence by a teacher (Ebigbo, 1993). Additionally, a 1991–1996 study of 5482 children in Nigeria found high levels of physical violence with 21% of participants reporting injury as a result of physical punishment (Ebigbo, 2003). The 2014 Nigeria Violence against Children Survey (VACS) found that 25% of females and 11% of males experienced sexual violence in childhood. The same survey found that 50% of females and 52% of males experienced physical violence in childhood and that 17% of females and 20% of males experienced emotional violence from a parent, care-giver or adult relative during childhood, thus demonstrating high levels of violence against children at a population level (National Population Commission of Nigeria, 2016). The Child's Rights Act was passed in Nigeria in 2003 at the federal level and provides a legislative framework for eliminating violence against children. In response to the release of the VACS data in 2015, the Government of Nigeria launched two campaigns, (1) The Year of Action to End Violence Against Children and (2) The End of Violence Against Children by 2030, which provide both a framework and funding. While this law and the campaigns represent considerable progress, much work remains to be done to prevent and respond to violence against children in Nigeria (UNICEF, 2007, 2016). A better understanding of the risk and protective factors associated with violence against children, including the role of ES, will help stakeholders in the prioritization of limited resources for prevention and response efforts. This research examines the link between violence victimization in childhood and ES in Nigeria.

In high-income countries, there has been considerable research to establish the association between ES and experiencing certain types of childhood violence (Berger, 2005; Cancian, Shook Slack, & Yang, 2010; Dubow, Huesmann, Boxer, & Smith, 2016; Kohler, Rosvall, & Emmelin, 2016; Lee and Goerge, 1999). As discussed above, child abuse is associated with ES. The fourth National Incidence Study of Child Abuse and Neglect conducted in the

United States in 2005–2006 found that children in the lowest ES households were four times more likely to experience abuse and neglect than those who were not in low ES households (Sedlak et al., 2010). Another U.S. study found a similar association between poverty and childhood physical abuse (Chiu et al., 2013). Likewise, a study conducted in Japan showed a link between poverty and increased child abuse victimization rates (Horikawa et al., 2016). A 2006 review of the literature similarly established that there is a well-documented relationship between poverty and higher levels of child abuse and neglect in the U.S. context (Freisthler et al., 2006). Similarly, the adolescent dating violence literature demonstrates a link to ES (Earnest & Brady, 2016; Fagan, 2005; Herrenkohl & Herrenkohl, 2007; Maas, Fleming, Herrenkohl, & Catalano, 2010). For example, one study of students in Minnesota found increased odds of dating violence victimization among those with reported lower ES. One study from the Northwest US found that poverty was predictive of adolescent teen dating violence victimization for boys, but not for girls (Maas et al., 2010). There is also evidence of a link between bullying and ES (Elgar, Craig, Boyce, Morgan, & Vella-Zarb, 2009), though the literature is limited. Though it is valuable to understand the research on ES and different types of violence in the U.S. and other high-income countries, these contexts vary markedly from Nigeria and any comparisons should be made with caution.

Research on the association between ES and child abuse and neglect in low- and middle-income countries (LMIC) is more varied. One review article noted a clear association between violence against children and poverty, but most of the studies were focused on child abuse and maltreatment indicating that the relationship between the child and perpetrator (i.e. parent or caregiver) may be an important factor when seeking to understand this association (Peterman, Neijhoft, Cook, & Palermo, 2017). Another study of six African countries found no significant relationship between childhood sexual abuse and either individual or community ES (Yahaya, de Leon, Uthman, Soares, & Macassa, 2014). In contrast, a study that focused on parental use of harsh punishment in China found significant differences among ES groups. Parents in low ES groups were significantly more likely to use severe physical abuse (based on the Chinese version of Parent-Child Conflicts Tactics Scale) than parents in high ES groups. However, parents in high ES groups were significantly more likely to use corporal punishment, which is inconsistent with prior research in high income countries (Wang & Liu, 2014).

To our knowledge, there is no prior research on the specific link between violence against children and ES in Nigeria and there is limited research on this link in sub-Saharan Africa. This study fills an important gap in understanding the context of violence against children to better inform policy, prevention and response efforts.

2. Methods

2.1. Study setting

Nigeria is a country in Western Africa that is approximately twice the size of California and has the highest population (190.6 million) on the continent. Nigeria has over 250 ethnic groups and over 500 indigenous languages with about 50% of the population Muslim, 40% Christian and 10% subscribing to indigenous beliefs (Central Intelligence Agency, 2017). Nigeria is experiencing rapid urban growth with cities like Lagos that has an annual growth

rate of over 5%. This rapid growth is stressing the urban infrastructure systems such as safe water, sanitation and solid waste, affecting the urban poor most significantly (Aliyu & Amadu, 2017).

2.2. Study procedures

The 2014 VACS was a national, cross-sectional household survey of females and males aged 13 to 24 years old. This survey uses a multistage cluster sample survey design to produce nationally representative estimates. The primary sampling units were the enumeration areas (EA) from the Nigeria 2006 census, excluding 24 local government areas (about 2% of the population) due to political unrest. Each EA samples a single sex to limit having both perpetrators and their victims interviewed. The sex of the interviewers matched the sex of survey respondent for the sampled community. All interviewers received extensive training prior to fieldwork, including training on safety and ethical procedures. There were no mandatory reporting laws at the time the study was implemented. However, participants with past or ongoing experiences of violence were offered a direct referral for counseling and other services through social workers from the Child Development Department within the Ministry of Women Affairs. The global VACS tools were adapted to the Nigerian context through the leadership and direction of the Nigerian Steering Committee on Violence Against Children and the Technical Working Group on Violence Against Children. The protocol was reviewed and approved by the CDC Institutional Review Board and the Nigeria Health Ethics Research Committee and no adverse events were reported during fieldwork.

The VACS is designed so that a head of household first answers a short demographic survey, which is where the questions related to household ES are asked. A 13–24 year old respondent is then asked to answer the respondent questionnaire separately and privately. The respondent questionnaire contains the childhood violence questions that were used for this analysis. It is possible that a respondent is also the head of household and answers both questionnaires, but more often they are different respondents for these two different questionnaires. The survey was administered electronically on netbooks via face-to-face interviews and all survey answers were recorded with CSPro software.

2.3. Measures/variables

For this analysis the sample population was broken into two age sub-groups: 13–17 and 18–24 years. The survey collected retrospective reports of sexual, emotional and physical violence. In this analysis, we focused on the 12-month prevalence among the 13–17 year old age-group as this age group represents those within the sample who were currently children and provides current prevalence data. For those in the 18–24 year old age-group we focus on prevalence of violence that occurred prior to the age of 18 as this group had completed childhood and allows assessment of the overall prevalence of violence against children in Nigeria. Sexual violence was defined as experiencing one of the following: 1) unwanted sexual touching 2) attempted unwanted sexual intercourse 3) pressured intercourse or 4) physically forced sex. Physical violence was defined as experiencing a physical act, such as kicking, hitting with an object, whipping, threatening with or using a weapon, suffocating or choking, intentionally burning, or attempting to drown. Questions about physical violence were asked in reference to four types of perpetrators: romantic partners, parents, peers, or

other adults in the community. Emotional violence was defined as verbal behaviors that are not conducive to support of a child's mental or physical health. These behaviors could include: being told that they were not loved; that they were wished dead; or being put down through use of words, only as it relates to caregiver/parent perpetration.

In addition to collecting information on violence, household economic information was collected from the head of each sampled household. The head of household could be a person other than the parent of the respondent, including the respondent. The economic information for this survey consisted of information on the physical characteristics of the dwelling (e.g., roof structure, wall type, number of toilets), electricity, and belongings.

A household ES was created using the Simple Poverty Scorecard™ Nigeria (Schreiner, 2015) which uses 10 poverty indicators to estimate the likelihood of a household being in a poverty. The VACS did not include all ten indicators included in the scorecard, therefore this paper uses a modified version of the scorecard. In total eight indicators were included: (1) number of members in household, (2) number of rooms that are occupied in household, (3) roof type, (4) type of toilet facility, (5) TV ownership, (6) number of mobile phones, (7) motorbike or car ownership, and (8) whether the household farms. Information about mattresses and cook type were not available in the survey, and were thus excluded from the analysis. Every question had responses which had points associated from the Simple Poverty Scorecard™ (e.g., The roof of the main dwelling is predominantly made of what material? Response options: A. Grass, clay tiles, asbestos or plastic sheets, or others- 0 points; B. Concrete, zinc, or iron sheets- 4 points). The points from the 8 questions were totaled up, and each household was given an overall score. ES was assigned as highest tertile, middle tertile, or lowest tertile for each analytical age range (i.e. 13–17 and 18–24) based on the overall score distribution.

2.4. Statistical analysis

The outcomes of interest were the three violence measures, which were given a value of 0 when the respondent indicated no violence and 1 when the respondent indicated that violence had occurred prior to age 18. Each of the three violence measures (physical, emotional, and sexual) were estimated independently using a logistic regression model. Based on the literature the following variables were included in the models: age of the respondent, sex of the respondent, information on the location of the household (urban or rural), ES of the household, age of the head of household, and sex of the head of household (Nguyen et al., 2018; Sedlak et al., 2010; Vanderende et al., 2016). Other information that was included in the model comprised information about the respondent: whether the respondent was an orphan (maternal orphan, paternal orphan, or double orphan prior to the age of 18), if the respondent was married, if the respondent has had to go hungry (food insecure), if any adults are chronically ill in the household in which the respondent resides, and if the respondent has witnessed violence in the home. Food insecurity was defined through the household survey and was given a value of 1 if the household indicated that they ever cut the size of meals for children living in the household due to a lack of money or food, and 0 otherwise.

3. Results

In total, 4203 observations are included in the sample, which represents all males and females surveyed. The household response rate for this survey was 97.5% for females and 97.0% for males. Once a census of the household determined that there was an eligible respondent in the household, the response rate was 96.2% for females and 96.7% for males. The data used in this analysis had no missing observations.

The overall weighted sample was approximately 51% female (Table 1). Overall 19.4% of the weighted sample reported having lost one or both parents, with 23.6% of individuals aged 18–24 becoming orphans before the age of 18. Overall, 34.4% of the population was food insecure, with 39.0% of children aged 13–17 living in households with food insecurity. The proportion of the overall population that lived in urban areas was 41.5%. Approximately 50% of the overall population experienced physical violence, while 17.6% experienced emotional violence. Sexual violence was experienced by 18.5% of the population, with 10.0% of individuals aged 13–17 experiencing it in the last 12 months and 24.4% of individuals aged 18–24 experiencing it prior to age 18.

The odds of children in households with the highest tertile ES experiencing sexual violence within the last 12 months were 4.91 (Table 2; CI: 2.46–9.81) higher than those in the lowest tertile ES. Females aged 13–17 years had higher odds of experiencing sexual violence in the last 12 months than males (AOR: 2.91; CI: 1.63–5.17). Individuals aged 18–24 years in households with the middle or high tertiles ES were 1.65 (1.16–2.35) and 1.96 (1.33–2.88), respectively, times more likely to experience sexual violence during their childhood than those in the lowest tertile ES. Similarly to children aged 13–17 years, females aged 18–24 years had higher odds of experiencing sexual violence in their childhood than males (AOR: 2.84; CI: 2.05–3.93).

The odds of children aged 13–17 years in households with high ES experiencing emotional violence within the last 12 months were 1.78 (Table 3; CI: 1.23–2.57) higher than those in the lowest ES. Females aged 13–17 years had lower odds of experiencing emotional violence than males (AOR: 0.56; CI: 0.40–0.78). Individuals aged 18–24 years in households with the highest tertile ES were 1.46 (CI: 1.05–2.04) times more likely to experience emotional violence in childhood than those in the lowest tertile ES.

Children aged 13–17 years in households with the highest tertile ES had higher odds of experiencing physical violence within the last 12 months than those in the lowest tertile ES (Table 4; Adjusted Odds Ratio (AOR): 1.81, CI: 1.33–2.46). Additionally, females in this age group had lower odds of experiencing physical violence than males (AOR: 0.74; CI: 0.56–0.97). The odds of 18–24 year olds in households with the highest tertile ES of experiencing physical violence in childhood were 1.62 (CI: 1.22–2.16) times that of those in the lowest ES. Individuals who were aged 18–24 years and were married or had witnessed violence were more likely to experience physical violence than those who did not have these characteristics (AOR: 1.94, CI: 1.54–2.44; AOR: 1.68, CI: 1.31–2.16 respectively).

4. Discussion

This research adds to the literature regarding the contexts in which children experience violence in LMIC, in particular the ecology of violence against children in Nigeria. Research in LMIC has shown varied results on the association between ES and violence (Chiu et al., 2013; Dubow et al., 2016; Sedlak et al., 2010).

The findings that higher ES was associated with higher risk of violence parallels some studies on intimate partner violence in LMICs (Wilkins, Tsao, Hertz, Davis, & Klevens, 2014). A six-country study found that in Zambia and Mozambique, IPV victimization was significantly higher for women in the wealthiest group; in Kenya and Zimbabwe, IPV was highest among women in poor households; and in Nigeria IPV was highest among women in the middle income group (Bamiwuye & Odimegwu, 2014). The 2013 Nigeria Demographic and Health Survey (conducted among 15–49 year olds) found a varied relationship between wealth and IPV against women. Women and girls in the lowest wealth quintile reported the lowest rates of emotional violence and physical violence while the rates of sexual violence showed no clear association with ES (National Population Commission [Nigeria] & ICF International, 2013). There is not any conclusive explanation for why the relationship between ES and IPV varies considerably from one context to another in these studies. The literature on both childhood violence and ES as well as IPV and ES in Africa indicates stark variability by country, suggesting that violence prevention activities may need to be tailored to the specific cultural and geographic context. Additional research is needed in the region and in Nigeria.

Using a novel approach to assess ES in VACS, this study found that in Nigeria individuals in high ES have an increased risk for all types of violence among both age groups, but the highest risk is among the 13–17 year olds in the past 12 months. These results are consistent with the 2013 Nigeria Demographic and Health Survey (DHS) that found physical violence to be most prevalent in the two highest wealth quintiles among females 15–19 (National Population Commission [Nigeria] & ICF International, 2013).

In this study, education is positively associated with wealth; higher education equates to potentially higher economic stability (data not shown). In Nigeria, attainment of education is fairly high, with more men attaining higher education than women; 62% of men compared with 45% of women have at least a secondary level of education or higher (National Population Commission [Nigeria] & ICF International, 2013). It is possible that boys and girls in upper ES households have acquired more years of education and thus have greater self-efficacy. More years of school attendance may expose children to a broader range of potential perpetrators, including boy/girlfriends, classmates, and friends who commit about 70% of SV against females and 60% against males prior to age 18, as well as teachers and other school staff (National Population Commission of Nigeria, 2016). Nigeria could benefit from prevention efforts aimed at improving safety within schools such as UNICEF Croatia's "Safe and Enabling School Environment Programme". This initiative worked to directly address violence happening within the school environment and successfully halved the incidence of violence taking place in schools between 2003 and 2011 (Brajša-Žganec et al., 2012).

This study provides evidence that programs and policy are needed to prevent and respond to violence against children in Nigeria. Children are likely at greater risk of experiencing violence in the highest tertile ES group for several reasons that are complex and may be unique to the Nigerian context. We posit that the relationship between ES, urbanicity and education are critically important and warrant further research.

This analysis has demonstrated that in Nigeria, living in households with higher economic status is associated with increased risk for violence among children and youth. Given that high ES is most prevalent in urban areas, if resources are limited to address the violence against children, starting with interventions in urban areas may provide the greatest initial impact. It may also be valuable for future studies to examine the phenomenon of the interplay between ES and violence through an ecological lens. Understanding the impact of cultural norms that may facilitate violence (e.g., male entitlement, peer associations, attitudes of aggression) may further help explain the association between the highest tertile ES and violence in order to develop more targeted interventions. The current study identifies the highest tertile ES as a risk factor for violence and provides basis as to the importance of future studies to further examine the environment to which the individual lives.

This study is subject to several limitations. This survey is a retrospective study, which may lead to recall bias. Further, given the sensitive subject matter, we expect some level of under-reporting due to stigma, social desirability, and the trauma of victimization. Given that the study is cross-sectional, future research on this topic could benefit from examining the issue longitudinally. The Simple Poverty Scorecard™ Nigeria (Schreiner, 2015), which was used to develop the ES variable used in this analysis, uses 8 of the 10 poverty indicators to estimate the likelihood of a household being in poverty. The additional 2 indicators would aid in better identifying households economic status. In LMICs, it is difficult to determine ES using monetary indicators, therefore the use of the scorecard is a unique contribution to the field. Additionally, the ES that is measured is the current ES of the household, while the childhood violence could have occurred in a different ES state. Finally, these results are not generalizable to other countries outside of Nigeria, the results would need to be replicated in other countries.

Ultimately, the results in this study demonstrate that in the unique cultural and geographic setting of Nigeria that higher ES is associated with a higher prevalence of childhood violence. While understanding our results will require greater investigation into the nature of violence against children in Nigeria, these data are still important for consideration in current prevention and intervention efforts being undertaken in Nigeria. Perhaps the relationship between the highest tertile ES and urbanicity indicate that limited resources should focus on urban centers and seek to serve children from a variety of economic backgrounds. Future studies may benefit from a mixed methods approach in order to tease apart the subtle issues around disclosure, normative behaviors, and ES.

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Abbreviations:

VACS	Violence Against Children Survey
ES	economic status
DHS	Demographic and Health Survey

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Table 1

Characteristics of respondents by age group – Violence against Children Survey, Nigeria 2014.

Characteristic	Overall Respondents (%) ^{a,b}	Age Group (years)	
		Aged 13–17 (%) ^{a,b}	Aged 18–24 (%) ^{a,b}
Observations	4203 (100)		
Age 13–17 years	1847 (40.8)		
Age 18–24 years	2356 (59.2)		
Sex			
Female	1766 (50.8)	797 (48.1)	969 (52.8)
Male	2437 (49.2)	1050 (51.9)	1387 (47.2)
Orphan	807 (19.4)	245 (13.3)	562 (23.6)
Married	1300 (31.3)	371 (25.5)	929 (35.3)
Food insecure	1379 (34.4)	754 (39.0)	625 (31.2)
Chronic illness	1067 (24.5)	581 (30.8)	486 (20.3)
Witnessed violence	1196 (33.1)	505 (35.3)	691 (31.6)
Urban	1659 (41.5)	708 (39.7)	951 (42.8)
Economic status			
Low	1491 (37.0)	665 (37.6)	826 (36.6)
Middle	1374 (30.0)	597 (28.1)	777 (31.4)
High	1338 (33.0)	585 (34.3)	753 (32.0)
Sexual violence ^c	508 (18.5)	109 (10.0)	399 (24.4)
Emotional violence ^c	858 (17.6)	359 (15.4)	499 (19.2)
Physical violence ^c	2136 (47.8)	962 (48.7)	1174 (47.2)

^aUnweighted sample sizes and weighted percentages are presented. Weighted percentages may not total due to rounding.

^bColumn percentages are presented.

^cIn 13–17 year old age group the violence occurred in the last 12-months and the violence occurred prior to 18 among the 18–24 year old age-group.

Table 2

Adjusted odds ratio (AOR) of individual level characteristics on sexual violence in childhood in respondents by age group - Violence Against Children Survey, Nigeria 2014.^a

Characteristic	AOR (95% CI) by Age Group (years)	
	Aged 13–17 (95% CI)	Aged 18–24 (95% CI)
Age of respondent	1.02 (0.88–1.19)	0.92 (0.85–0.99)*
Sex		
Male	Referent	Referent
Female	2.91 (1.63–5.17)***	2.84 (2.05–3.93)***
Respondent is orphan	1.74 (0.99–3.07)	1.24 (0.91–1.68)
Respondent married	2.70 (1.62–4.52)***	1.58 (1.13–2.21)**
Respondent food insecure	1.50 (0.90–2.51)	1.49 (1.01–2.18)*
Chronic illness in house	1.33 (0.73–2.40)	1.00 (0.68–1.46)
Respondent witnessed violence	1.26 (0.73–2.19)	1.57 (1.14–2.16)**
Rural	Referent	Referent
Urban	0.74 (0.40–1.36)	0.92 (0.63–1.36)
Economic status		
Low	Referent	Referent
Middle	2.06 (0.99–4.31)	1.65 (1.16–2.35)**
High	4.91 (2.46–9.81)***	1.96 (1.33–2.88)***
Head of household age	1.01 (1.00–1.02)	1.01 (1.00–1.01)
Head of household sex	1.25 (0.69–2.27)	1.31 (0.97–1.76)
Constant	0.00 (0.00–0.04)***	0.21 (0.04–1.10)

Note: Asterisk (*), double asterisk (**), and triple asterisk (***) denote 5%, 1%, and 0.01% significance levels, respectively.

^aIn 13–17 year old age group the violence occurred in the last 12-months and the violence occurred prior to 18 among the 18–24 year old age-group.

Table 3

Adjusted odds ratio (AOR) of individual level characteristics on emotional violence in childhood in respondents by age group – Violence Against Children Survey, Nigeria 2014.^a

Characteristic	AOR (95% CI) by Age Group (years)	
	Aged 13–17 (95% CI)	Aged 18–24 (95% CI)
Age of respondent	0.98 (0.87–1.08)	1.00 (0.94–1.06)
Sex		
Male	Referent	Referent
Female	0.56 (0.40–0.78)***	0.84 (0.62–1.15)
Respondent is orphan	1.33 (0.84–2.10)	1.00 (0.73–1.36)
Respondent married	1.46 (1.05–2.04)*	1.51 (1.15–1.99)**
Respondent food insecure	1.55 (1.16–2.07)**	1.25 (0.86–1.80)
Chronic illness in house	1.19 (0.87–1.64)	1.05 (0.73–1.53)
Respondent witnessed violence	1.95 (1.45–2.63)***	1.93 (1.44–2.60)***
Rural	Referent	Referent
Urban	0.99 (0.71–1.38)	1.06 (0.77–1.44)
Economic status		
Low	Referent	Referent
Middle	1.16 (0.80–1.68)	1.08 (0.77–1.51)
High	1.78 (1.23–2.57)**	1.46 (1.05–2.04)*
Head of household age	1.00 (1.00–1.02)	1.01 (1.00–1.01)
Head of household sex	1.17 (0.80–1.69)	1.30 (0.93–1.81)
Constant	0.16 (0.03–0.93)*	0.11 (0.03–0.42)***

Note: Asterisk (*), double asterisk (**), and triple asterisk (***) denote 5%, 1%, and 0.01% significance levels, respectively.

^aIn 13–17 year old age group the violence occurred in the last 12-months and the violence occurred prior to 18 among the 18–24 year old age-group.

Table 4

Adjusted odds ratio (AOR) of individual level characteristics on physical violence in childhood in respondents by age group - Violence Against Children Survey, Nigeria 2014.^a

Characteristic	AOR (95% CI) by Age Group (years)	
	Aged 13–17 (95% CI)	Aged 18–24 (95% CI)
Age of respondent	0.97 (0.88–1.06)	1.02 (0.97–1.07)
Sex		
Male	Referent	Referent
Female	0.74 (0.56–0.97)*	0.85 (0.63–1.13)
Respondent is orphan	1.41 (0.98–2.03)	1.01 (0.78–1.30)
Respondent married	0.92 (0.69–1.24)	1.94 (1.54–2.44)***
Respondent food insecure	1.32 (1.03–1.70)*	1.25 (0.95–1.65)
Chronic illness in house	0.89 (0.70–1.15)	0.73 (0.55–0.97)*
Respondent witnessed violence	1.50 (1.13–1.98)**	1.68 (1.31–2.16)***
Rural	Referent	Referent
Urban	0.94 (0.70–1.27)	1.07 (0.81–1.42)
Economic Status		
Low	Referent	Referent
Middle	1.33 (1.00–1.77)	1.10 (0.85–1.44)
High	1.81 (1.33–2.46)***	1.62 (1.22–2.16)***
Head of household age	1.01 (1.00–1.02)	1.01 (1.00–1.01)
Head of household sex	0.97 (0.70–1.35)	1.37 (1.02–1.84)*
Constant	0.84 (0.21–3.47)	0.27 (0.08–0.92)*

* Note: Asterisk (*), double asterisk (**), and triple asterisk (***) denote 5%, 1%, and 0.01% significance levels, respectively.

^aIn 13–17 year old age group the violence occurred in the last 12-months and the violence occurred prior to 18 among the 18–24 year old age-group.