Research article

Cycle of violence among young Kenyan women: The link between childhood violence and adult physical intimate partner violence in a population-based survey

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Abstract

The aim of the current analysis is to elucidate the link between childhood experiences of violence and physical intimate partner violence in young adulthood in a national survey of young Kenyan women. In 2010, we conducted the Violence against Children Survey in Kenya, collecting retrospective reports from 13 to 24 year old males and females (N = 2928). The analysis presented here focused on females aged 18–24 who ever had an intimate partner (n = 566). Young Kenyan women had statistically higher odds of experiencing physical intimate partner violence (IPV) in young adulthood if they had experienced any childhood violence (including sexual, emotional, or physical) [adjusted odds ratio (AOR) = 3.1 CI: 1.2–7.9, p = 0.02], any childhood sexual violence (AOR = 2.5, CI 1.3–4.9, p = 0.006), or unwanted completed sex (including pressured or forced sex prior to age 18) (AOR = 4.3, CI: 2.3–8.3, p < 0.0001). Exposure to two (AOR = 3.9, CI: 1.2–12.2, p = 0.02) or three (AOR = 5.0, CI: 1.4–18.1, p = 0.01) types of violence in childhood was also associated with a significantly higher odds of experiencing adult physical IPV. Childhood violence is associated with increased odds of adult physical IPV among young women; efforts to prevent violence against children and provide appropriate care and support to adult survivors are critical to interrupt this cycle of violence.

1. Introduction

Violence against children (VAC) is a public health and human rights crisis throughout the world. A UN study on VAC estimates that 133 to 275 million children are exposed to violence in the home each year (UNICEF, 2006). Scientists from the US Centers for Disease Control and Prevention (CDC) recently estimated that 1 billion children experience violence annually (Hillis, Mercy, Amobi, & Kress, 2016). VAC has been associated with a host of short- and long-term negative outcomes related to mental health, sexual
health and chronic health issues across various studies and contexts (Beitchman, Zucker, Hood & d'Costa, 1992; Coles, Lee, Taft, Mazza & Loxton, 2015; Felitti et al., 1998; Hillis, Anda, Felitti, Nordenberg, & Marchbanks, 2000).

Researchers have become increasingly interested in the links between VAC and adult violence victimization, especially by an intimate partner (Arias, 2004; Barnes, Noel, Putnam, & Trickett, 2009; Capaldi, Knoble, Shortt, & Hyoun, 2012; Coid, Petrucevitch, Feder, Chung, Richardson & Moorey, 2001; Daigneault, Hebert, & McDuff, 2009; Ports, Ford, & Merrick, 2016; Whitfield, Anda, Dube, & Felitti, 2003). Global rates of intimate partner violence (IPV) against women vary widely. In a multi-country study on IPV, the prevalence of physical or sexual violence for women of reproductive age ranged from 15 to 71% across country sites, with only two countries reporting less than 25% (Garcia-Moreno, Jansen, Ellsor, Heise, & Watts, 2006).

While there are large bodies of research on VAC and on IPV, the available evidence on the association between the two is varied and difficult to compare given the complexity of pathways, different types of child violence studied separately, and a focus on high income settings (Guedes, Bott, Garcia-Moreno, & Colombini, 2016). In this high income context, studies have found links between physical and sexual VAC and experiencing IPV. However, these findings are not consistent. One study found that US women who had experienced childhood violence or witnessed inter-parental violence in childhood had six times increased odds of experiencing physical IPV as adults (Bensley, Van Eenwyk, Wynkoop & Simmons, 2003). Coid et al. (2001) found that among UK women unwanted childhood sex and severe physical punishment by a parent were each independently associated with nearly four times increased odds of experiencing IPV in adulthood. Another study in the US used a prospective cohort design to study the relationship between VAC and adult revictimization and found that children experiencing physical and sexual violence as well as neglect were significantly more likely to experience IPV in adulthood compared to the control group. This study also found significant differences when disaggregating results by sex and ethnicity (Widom, Czaja, & Dutton, 2008). Conversely, Jennings, Richards, Tomsich, Gover, and Powers, (2013) found differences between victims and non-victims of VAC in a study of US college students were rendered non-significant when they used a methodology to statistically match across a host of confounders, suggesting that the issue is highly complex. In one of the few studies to look at emotional and IPV, Richards, Tillyer, and Wright, (2017) found that among a US national sample, IPV was associated with physical and emotional VAC for females and with physical, emotional and sexual VAC for males.

There are fewer studies examining linkages between childhood VAC and IPV in low and middle income settings, and often these are looking at perpetration rather than revictimization and are not comparable across settings (Abramsky, Watts, & Garcia-Moreno, 2011; Child Protection Monitoring & Evaluation Reference Group, 2014). There is some evidence from Latin America that physical VAC is linked with later experience of IPV (Bott, Guedes, Goodwin, & Mendoza, 2012.) A study of Ecuadorian women found emotional and physical VAC to be highly predictive of adult IPV victimization (Gomez & Speizer, 2009; Speizer, Goodwin, Whittle, Clyde, & Rogers, 2008). Using DHS data for Colombia, Friedmann-Sanchez and Lovaton (2012) found that a history of VAC was associated with increased risk of both emotional IPV and physical IPV in adulthood for women. A multi-country study in Asia and the Pacific found an association between all forms of VAC (emotional, physical, sexual) and experiencing physical or sexual IPV (Ful et al., 2017). A study in Vietnam found that VAC was a risk factor for adult IPV for young women (Hong, Tran, Nguyen & Fisher, 2014). In a global review examining the intersection of VAC and IPV in low and middle income countries, the authors found that both types of violence share many common risk factors and that consequences of such violence are ‘common and compounding’ and urge better coordination among programs and research (Guedes et al., 2016).

There are several theories to explain the relationship between VAC and IPV in adulthood. Risser, Hetzel-Riggin, Thomsen, and McCanne, (2006) found that posttraumatic stress disorder (PTSD) and specifically hyper-arousal symptoms may be the primary causal factor in the relationship between sexual VAC and adult IPV, positing that an adult woman with PTSD related to VAC may have an impaired ability to detect and respond to danger. Messman and Long (1996) have theorized that children who are sexually abused may have diminished self-efficacy and learned helplessness. In contrast, Bensley, Van Eenwyk, and Wynkoop Simmons, (2003) argue that since VAC affects self-esteem and relationships, then the direct link to IPV is obscured. Namy et al. (2017) have applied a feminist analysis to understanding the link and concluded that gender norms and power dynamics coalesce to perpetuate a cycle of violence, particularly within traditional patriarchal contexts.

Both VAC and IPV against women are significant public health issues in Kenya. The Kenya VACS showed that boys and girls experience violence at high rates. The prevalence of childhood physical violence among boys was 73.1% and among girls was 66.0%; the prevalence of childhood emotional violence among boys was 31.9% and among girls was 25.8%; and the prevalence of childhood sexual violence among boys was 17.5% and among girls was 31.9% (UNICEF, Centers for Disease Control and Prevention and Kenya National Bureau of Statistics, 2012). The 2014 Kenya Demographic and Health Survey (DHS) found 15–49 year-old women in the Kenya experienced high rates of physical violence (37%), emotional violence (32%) and sexual violence (13%) by an intimate partner. Further, DHS measures negative gender norms by asking if men are justified in beating their wives in any of four situations. Forty-one percent of women and 36.2% of men agree that husbands are justified in beating their wives in one or more scenarios (Kenya National Bureau of Statistics, 2015). An extensive body of literature has demonstrated that gender norms are a root cause of gender inequities in a host of public health issues, including experiences of violence (Chandra-Mouli et al., 2017).

In this paper we examine the association between emotional, physical and sexual VAC (violence occurring prior to age 18 years) with physical IPV in young adulthood (18–24 years) in Kenya using the 2010 VACS data. We focused on females because of the global epidemiologic pattern that females experience IPV differently than males and most often at higher levels and with greater negative consequences across the social ecology (Fang & Corso, 2007).
2. Methods

2.1. Study procedures

The 2010 Kenya VACS was a cross-sectional household survey of 13–24 year old females and males designed to produce national estimates of physical, emotional and sexual VAC as well as risk and protective factors, health outcomes and service knowledge and uptake. The Kenya National Bureau of Statistics' (KNBS) household survey sampling frame, the National Sample Survey and Evaluation Programme (NASSEP IV), is based on the 1999 population and housing census and represented the most reliable and recent population sampling frame at the time of the study. Of the 1800 enumeration areas (EAs) in the NASSEP IV, 238 were randomly selected using population proportional to size and then randomly assigned as either female (n = 104) or male (n = 134) EAs. The survey was administered in thirteen commonly spoken languages used in national surveys and the Census in Kenya: Borana, English, Kalenjin, Kamba, Kikuyu, Kisii, Luo, Luhya, Maasai, Meru, Mijikenda, Swahili and Somali.

In total, a nationally-representative sample of 2683 interviews were completed, with 1227 completed female interviews and 1456 completed male interviews. The overall response rate for females was 84.8% and the individual response rate was 94.0%. The overall response rate for males was 80.4% and the individual response rate for males was 89.8%. In this analysis, we focused on females aged 18–24 who reported ever having an intimate partner (n = 566).

The study was reviewed and approved by the Ethical Review Committee of the Kenya Medical Research Institute (KEMRI) and by the CDC Institutional Review Board. Prior to the administration of the national household survey, a pilot study was conducted. Findings from the pilot study were used to refine the survey instrument and protocols. The study followed documented ethical and safety procedures to ensure the rights and safety of each respondent. KNBS recruited interviewers from their pool of experienced survey researchers. A preference was given towards those with prior engagement on surveys with sensitive subject matter, such as the DHS. Applicants were also screened to ensure appropriate recruitment by language skills and cultural context based on the sampled areas. CDC, UNICEF and KNBS led a thirteen-day training that covered methods, ethics, study procedures and considerable time to practice the questionnaires and the study protocols.

Every respondent provided verbal assent/consent. Parental consent was waived for the Kenya VACS due to safety concerns for the child respondents in the case that parents were the perpetrators or knew the perpetrators. Instead, we sought permission from parents or guardians for 13–17 year olds to speak with their child about the study and gain the child’s assent for participation. In order to protect the confidentiality and safety of respondents, the study was described to other household members (including parents/guardians) as a general health and education survey for Kenyan youth. This study procedure was adapted from the recommended protections outlined in the World Health Organization’s (2001) Putting Women First: Ethical and Safety Recommendations for Research on Domestic Violence against Women. In addition, all interviews were conducted in private spaces in the respondent’s language of choice to ensure confidentiality and increase the likelihood of disclosure. Finally, any respondent who wanted help for past experiences of violence or who experienced any negative emotional impact from answering the survey questions was offered a direct referral with a trained counselor.

2.2. Measures/Variables

Childhood Violence. Any childhood violence was defined as any experience of physical, emotional and/or sexual violence that occurred prior to 18 years of age. Childhood physical violence includes any experiences of being hit with a fist, kicked, beaten with an object, or threatened with or attacked with a knife or other weapon, prior to age 18 years. Childhood emotional violence includes any experiences of an adult making a child feel unwanted or humiliated or threatening abandonment, prior to 18 years. Childhood sexual violence includes any unwanted sexual touching, unwanted attempted sex, physically-forced sex, or pressured sex, prior to age 18. To examine the impact of non-consensual penetrative sex, we combined pressured sex and physically-forced sex for a measure of overall ‘unwanted sex’. Adult physical IPV is defined as being slapped, pushed, hit with a fist, kicked, beaten with an object, or threatened with or attacked with a knife or other weapon, at or after the age of 18 by a romantic partner or husband.

Covariates. Socioeconomic status (SES) was estimated using a method developed for the DHS (Rutstein & Johnson, 2004). Using SES variables from the household questionnaire, we conducted a primary components analysis to create an SES variable that informed categorization of the sample into wealth quintiles, with quintile one the least wealthy and quintile five the wealthiest. Orphanhood was defined as having lost one or both biological parents prior to turning 18 years old (Joint United Nations Programme on HIV/AIDS (UNAIDS) (2004)) and ever married included ever married or lived with someone as if married.

Intimate Partner Violence in Young Adulthood. The analyses used data from 18 to 24 year olds to assess the association between exposure to violence in childhood and later risk for intimate partner violence in young adulthood. Females younger than 18 were excluded in order to temporally separate measures of IPV in young adulthood (aged 18 to 24) from violence experienced in childhood (younger than age 18). The questionnaire included two questions related to the age of the respondent at the time of a violent experience: 1) her age at the first experience of sexual, physical or emotional violence, and b) whether she experienced that type of violence in the past 12 months. A variable for adult physical IPV was created based on whether a respondent met one of the following criteria: 1) the respondent was age 18 or older and reported that her first experience of physical violence by an intimate partner occurred at age 18 or after, or 2) the respondent was age 19 or older and reported any physical violence by an intimate partner in the last 12 months, even if the first experience was prior to age 18.

If we could not determine that a respondent was age 18 at the time of an experience of physical IPV (because she had a first experience of physical abuse prior to age 18 and it is unclear whether she was age 17 or 18 at the time of a subsequent experience of
abuse in the past 12 months) then the respondent was excluded from the analysis (n = 11).

2.3. Statistical analysis

We used SAS version 9.3 to analyze the survey data, accounting for the assigned weights. Weights were created using a 3-stage process and applied to each individual record to adjust for the probability of selection, non-response and calibration.

We conducted bivariate analyses to test whether experiences of childhood violence were associated with physical violence by an intimate partner in adulthood. We then performed multivariate logistic regression to control for potential confounding variables including ever married, ever pregnant, SES, and orphan status.

3. Results

The demographics of the survey sample analyzed for the research discussed in this study are reported in Table 1. Approximately 61% of ever partnered 18–24 year old females had ever been married, and nearly one in four were orphaned. Overall, 78% of ever partnered 18–24 year olds experienced any type of violence in childhood (Table 2).

Bivariate logistic regression analyses demonstrated that sexual VAC, unwanted penetrative sex in childhood, emotional VAC, the composite indicator of any VAC (emotional, sexual, or physical), and the experience of multiple types (no violence, one type of violence, two types of violence or three types of violence) of VAC were each associated with physical IPV after the age of 18. Ever married and ever pregnant were also significant predictors of physical IPV. Young women who were ever married had a 4.6 times increased odds of reporting experiences of adult physical IPV (95% Confidence Interval [CI]: 2.0–10.7; p = 0.0003). Those who were ever pregnant had a 4.7 times increased odds of experiencing adult physical IPV (95% CI: 2.4–9.1; p < 0.0001). Orphan status was not a significant predictor of adult physical IPV. SES quintile one (least wealthy), two, and four were also significantly associated with adult physical IPV when compared with quintile five (most wealthy).

We conducted multivariate logistic regression to assess the association between sexual, physical, and emotional VAC and adult physical IPV, controlling for potential confounding variables including ever married, ever pregnant, SES, and orphan status.

### Table 1


<table>
<thead>
<tr>
<th>Age</th>
<th>Unweighted Frequency</th>
<th>Weighted % (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20 years</td>
<td>219</td>
<td>40.9 [34.8-47.0]</td>
</tr>
<tr>
<td>21-22 years</td>
<td>181</td>
<td>32.9 [26.2-39.6]</td>
</tr>
<tr>
<td>23-24 years</td>
<td>166</td>
<td>26.2 [20.4-32.0]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Socioeconomic Status</th>
<th>Unweighted Frequency</th>
<th>Weighted % (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quintile 1 (least wealthy)</td>
<td>116</td>
<td>16.9 [10.2-23.6]</td>
</tr>
<tr>
<td>Quintile 2</td>
<td>130</td>
<td>20.3 [14.8-25.8]</td>
</tr>
<tr>
<td>Quintile 3</td>
<td>123</td>
<td>20.7 [15.9-25.4]</td>
</tr>
<tr>
<td>Quintile 4</td>
<td>111</td>
<td>21.4 [15.4-27.4]</td>
</tr>
<tr>
<td>Quintile 5 (wealthiest)</td>
<td>86</td>
<td>20.7 [13.3-28.1]</td>
</tr>
<tr>
<td>Orphaned</td>
<td>141</td>
<td>23.7 [18.2-29.3]</td>
</tr>
<tr>
<td>Ever-Married</td>
<td>385</td>
<td>61.3 [55.3-67.3]</td>
</tr>
<tr>
<td>Ever-Pregnant</td>
<td>393</td>
<td>82.5 [78.0-87.0]</td>
</tr>
</tbody>
</table>

*Orphaned is defined as having lost one or both parents prior to age 18.
**Demographic data may differ from the Kenya VACS final report because our analytic sub-group is ever-partnered 18–24 year olds and thus a different analytic sub-group than the report.

### Table 2


<table>
<thead>
<tr>
<th>Exposure</th>
<th>Unweighted Frequency</th>
<th>Weighted % (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Violence in Childhood</td>
<td>438</td>
<td>78.4 [73.2-83.6]</td>
</tr>
<tr>
<td>Physical Violence in Childhood</td>
<td>383</td>
<td>67.0 [60.3-73.6]</td>
</tr>
<tr>
<td>Sexual Violence in Childhood</td>
<td>182</td>
<td>33.0 [27.5-38.5]</td>
</tr>
<tr>
<td>Emotional Violence in Childhood</td>
<td>149</td>
<td>26.1 [20.3-32.0]</td>
</tr>
<tr>
<td>One type of childhood violence</td>
<td>234</td>
<td>43.4 [39.3-48.4]</td>
</tr>
<tr>
<td>Two types of childhood violence</td>
<td>132</td>
<td>22.4 [18.2-26.6]</td>
</tr>
<tr>
<td>Three types of childhood violence</td>
<td>72</td>
<td>12.6 [8.9-16.3]</td>
</tr>
<tr>
<td>Intimate Partner Violence in Early Adulthood</td>
<td>132</td>
<td>21.6 [16.8-26.5]</td>
</tr>
</tbody>
</table>
In this paper, we examined the relationship between experiences of VAC and later experiences of physical IPV among young Kenyan women who had ever had a partner. Prior research has demonstrated a link between child victimization and risk for later victimization in adulthood (Desai, Arias, Thompson, & Basile, 2002). However, the majority of these studies have been conducted in high-income settings (Coid, Petrucevitch, Feder, Chung, Richardson & Moorey, 2001; Maker, Kemmelmeir, & Peterson, 2001; Widom et al., 2008). We are not aware of any other studies in Kenya that have looked at the association between VAC and adult IPV.

The results discussed in this study expand our understanding of the cyclic nature of violence victimization, demonstrating links between different types of VAC and adult IPV as well as the compounded impact of experiencing multiple types of VAC and adult physical IPV victimization. Results show that young Kenyan women are more likely to experience physical IPV if they experienced any VAC, particularly sexual VAC. This paper also demonstrates that the relationship between childhood victimization and adult victimization is nuanced and must be interpreted carefully. While any sexual VAC—including unwanted sexual touching, attempted forced sex, forced sex, and pressured sex—was associated with a 2.5 times increased odds of physical IPV, unwanted penetrative sex—including forced sex and pressured sex—was associated with a 4.3 times increased odds of physical IPV. This finding builds on prior research such as a study by Fleming, Mullen, Sibthorpe, and Bammer, (1999) that found child sexual abuse involving penetrative sex tripled the risk of sexual violence victimization in adulthood. Exposure to two (AOR: 3.9) or three (AOR: 5.0) types of violence in childhood was also associated with a significant increased odds of adult physical IPV, providing further evidence of linkages between VAC, including a possible dosage relationship, and violence later in the lifespan.

That physical VAC on its own was not associated with adult physical IPV may be an indication of the normalization and cultural acceptance of physical violence against children in the population. As previously discussed, the Kenya VACS found a high prevalence of VAC often co-occur, we included all types of VAC in the model when evaluating the association with adult physical IPV (Table 3).
of childhood physical violence (66.0%), indicating a normative experience (UNICEF, 2012).

Although it was not the aim of this paper, it is also important to acknowledge that in addition to VAC exposures, the analyses highlighted ever being married or pregnant as significant predictors of physical IPV. Causal pathways towards and risk factors for IPV are highly complex and the field would benefit from further research to better understand nuances across contexts.

The data presented here underscore the link between VAC and the risk of IPV in young adulthood. While further research needs to be done to understand the mechanisms that underlie the association between VAC and young adult IPV, these data increase the understanding of violence in childhood as a risk factor for future experiences of violence. Additionally, the association between the recurrence of violence and the number and severity of negative outcomes (Felitti et al., 1998) is a critical consideration for focused on preventing childhood violence. Due to the high burden and impact of violence against children, key global partners developed the INSPIRE technical package of evidence-based interventions for preventing and responding to violence against children (World Health Organization, 2016). The INSPIRE strategies and approaches include implementation and enforcement of laws, norms and values, safe environments, parent and caregiver support, income and economic strengthening, response and support services, and education and life skills. Critical stakeholders in Kenya can consider this package for adaptation, evaluation and scale up. In terms of applying the research discussed in this paper and related research to public health prevention and clinical response services, it is vital for specialists and practitioners to understand the inter-connectedness of violence experiences across the lifespan. It is important for intervention programming in Kenya for child violence victims to take into account future vulnerability to victimization, and for programming for adult survivors to take into account past experiences to better understand and mitigate the impact of recent/current violence experiences.

As discussed above, some of the dominant theories explaining the linkage between VAC and IPV argue the physiological impacts of stress from sexual VAC may at least partially explain adult sexual violence victimization. We suggest that these physiological and psychological impacts may be similar for other types of VAC (e.g. emotional and physical VAC) and adult IPV. Moreover, we would further hypothesize that it is possible there may be some persistent environmental factors- such as gender norms- that could place girls and young women at risk for one or more types of violence in childhood and victimization in adulthood. For example, research has shown that women who believe that wife beating is acceptable are also more likely to believe that corporal punishment for children is necessary, and children of these women are in turn more likely to experience childhood violence (Lansford, Deater-Deckard, Bornstein & Putnick, 2014). Harmful gender norms and their impact on cycles of violence likely vary from one cultural context to another. It is also possible that in some circumstances the perpetrator for the childhood and adult victimization are the same, representing protracted exposure to the same perpetrator rather than childhood violence predisposing victims to other and different types of violence later in life.

Although the Kenya VACS was conducted in 2010, we believe that this analysis is still highly relevant for several reasons. First, we did not find any similar studies in Kenya or in the region, suggesting these data to be a useful contribution to the literature. Second, while the Government of Kenya and stakeholders responded robustly to the VACS data, most of the prevention and intervention programming occurred at the local level rather than the national level and we anticipate that the prevalence of both VAC and adult IPV remain a significant problem in Kenya. Third, the Government of Kenya is in the planning stages to conduct a second VACS and the current study could be relevant to planning efforts in addition to the continued response efforts to the initial VACS.

It is important to acknowledge the limitations of the VACS in Kenya. First, VACS is a cross-sectional survey reliant on retrospective self-reports of violence and therefore causality cannot be inferred from correlational analysis (Briere, 1992). Particularly in the case of violence research and especially when looking at the relationship between past and current violence, it is possible that “current distress or symptomology” may impact the way that earlier experiences are processed and recounted (Cashmore & Shackel, 2013). Therefore, since the findings in this current study are reliant on self-reports, it is possible that the more recent adult physical IPV experiences influence the recall of childhood violence experiences. Relatedly, while we used considerable care in selecting and training interviewers to gain trust and maximize rapport with respondents, we acknowledge the potential for social desirability, stigma and recall bias. These biases may introduce some error when data accuracy is reliant on retrospective reports and the willingness of respondents to disclose sensitive information about events that may have taken place several years in the past.

5. Conclusion

While the current analyses identified concerning associations between violence in childhood and young adult experiences of physical IPV, future research should explore the specific pathways through which childhood experiences of violence may shape risk of IPV in Kenya and beyond. Additional research may also look at the impact of exposure to childhood violence beyond young adulthood as well as on other forms of gender-based violence in Kenya. Such research could lead to effective interventions to break the cycle of childhood and young adult violence.

6. Disclaimer

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

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