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Childrearing Violence and Child Adjustment Following Exposure to Kenyan Post-election Violence

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Abstract

Objective—This study examines parents' and children's exposure to short-term political violence and the relation between childrearing violence and child adjustment following widespread violence that erupted in Kisumu, Kenya after the disputed presidential election in December 2007.

Method—Mothers of 100 Luo children (mean age = 8.46 years, 61% female) reported on their own use of childrearing violence at Time 1, approximately 4 months after the disputed election, and again at Times 2 ($n = 95$) and 3 ($n = 95$), approximately 12 and 24 months later, respectively. At Time 2, mothers reported about post-election violence directed at them and about their children's exposure to post-election violence. Children reported about their own externalizing behaviors at Times 1, 2, and 3.

Results—Children's exposure to post-election violence was related to Time 2 externalizing behavior, and childrearing violence at Time 1 predicted child externalizing behavior at Time 2. Exposure to post-election violence was not directly related to either childrearing violence or children's externalizing behavior by Time 3, although children's externalizing at Time 2 predicted more childrearing violence at Time 3.

Conclusion—These results support earlier work that links childrearing violence and children's exposure to political violence with increases in child externalizing behavior, but examined these links in the under-studied area of short-term political violence. Even though sudden and severe political violence may subside significantly in weeks or months, increased attention to long-term effects on parenting and child adjustment is warranted.

Keywords

child adjustment; child externalizing behavior; corporal punishment; political violence; parenting; parenting violence; sectarian violence

In recent years, more than 20 million children have been displaced and more than 2 million children have either been seriously injured or died worldwide as a result of exposure to armed conflicts and other forms of human rights violations (UNICEF, 2011). Research about children's exposure to community and political violence has documented a strong link from exposure to violence, death, threats, intimidation, arrest, and interpersonal conflicts to child adjustment problems but a majority of this research has examined either effects of chronic community violence or effects of long-standing political violence on children's

adjustment (Cummings et al., 2010; Qouta, Punamki, & El Sarraj, 2008). Comparatively little attention has been given to short-lived political violence that erupts in previous conditions of relative peace. The current study helps to fill this gap in the literature by examining relations among exposure to short-lived politically-instigated violence, childrearing violence, and children's adjustment in the two years that followed the disputed 2007 presidential elections in Kenya.

2007 Post-election Violence in Kenya

Kenya's economy, political map, and social fabric were drastically altered by outbreaks of post-election violence (PEV) that followed the declaration of the highly contested election results on December 27, 2007 and the revenge attacks that occurred between January 25–30, 2008 in several parts of Kenya. The conflicts instigated by the December 2007 elections resulted in more than 1200 lives lost, internal displacements of hundreds of thousands of persons, and destruction of tens of thousands of homes, properties, and businesses (OHCHR, 2008). Children and families who had recently interacted peacefully with schoolmates, friends, and neighbors from different ethnic backgrounds suddenly found themselves thrust into conflict that permeated most of their relationships and during which they had little choice but to align along ethnic lines. At the economic level, PEV also disrupted supply chains of necessary commodities in most parts of the country and consequently shattered Kenya's long standing reputation as an island of relative peace in contrast with more unstable neighbors, including Uganda, Ethiopia, Somalia, and the Sudan. Consequently, the violence threatened the very existence of Kenya's statehood through the loss of lives and internal displacements of thousands of persons from areas that they had considered home and heavily invested in for many years.

Political Violence

Much of the research linking political violence to various aspects of child adjustment is predicated on research with children following exposure to community violence more broadly (see Lynch, 2003), but there is now also a growing body of research that examines the link specifically between political violence and child adjustment. Often-studied effects of political violence on children include psychological difficulties, the presence of PTSD symptoms, an increase in aggressive behaviors, and a decrease in prosocial behaviors that may persist over time (e.g., Cummings et al., 2010; Haj-Yahia, 2008; Kerestes, 2006). For example, in a study with Palestinian youth, Qouta, Punamaki, and El Sarraj (2003) found that more than half of the children were experiencing severe levels of PTSD symptoms. Although this number seems quite high, the authors suggest that the sudden onset of the acts of military violence and its unpredictable nature contributed to this result. Because the authors did not measure exposure to other forms of violence, however, it is unknown whether or not other forms of violence contributed to this effect.

Other researchers, however, have found that exposure to political violence makes a unique contribution to child adjustment problems. Dubow et al (2012) found that even when controlling for the effects of school, family, and community violence, exposure to political violence made a unique contribution to post-traumatic stress symptoms in the 3 years following the exposure. This unique contribution also points to the important role that sectarian violence (which is directed toward a particular religious or ethnic group) plays as compared to non-sectarian violence. Religious and ethnic identity are powerful forces in the development of social cognitions (Phinney & Ong, 2007), and in the case of sectarian violence this influence cannot be ignored. In a study of mother-child dyads in Northern Ireland, Cummings et al. (2010) found that when compared to nonsectarian violence, sectarian violence uniquely contributed to child adjustment problems through the pathways

of heightened family conflict and mothers' perceptions about children's emotional security about their community. An important link was also found between sectarian violence and lower levels of children's prosocial behavior, including pathways through family conflict and children's perceptions about security in the community, the family, and the parent-child relationship. Dubow et al. (2010) theorized that the negative effects of political violence on children's adjustment are greater than might result from exposure to other forms of violence because the violence is perpetrated and sanctioned by influential members of the community and is associated with long-standing ethnic identity. These authors also found that exposure to political violence was a unique predictor of PTSD symptoms, even when controlling for exposure to other forms of violence, suggesting a unique effect of political violence. With regards to sectarian violence in these most oft-studied geographical locations (Northern Ireland, Palestine, in particular), the violence occurred over many months and years. In contrast, less is known about the effects of sectarian violence that is of relatively shorter duration, but still involves influential members of the community. There is danger in assuming that child behavior may be unaffected when the intense violence is no longer of primary concern.

Community Violence, Child Adjustment, and Parents' Violence toward Children

Exposure to community violence is a far too common experience for many children. A large body of research, well summarized in some reviews (Lynch, 2003; Margolin & Gordis, 2000; Salzinger, Feldman, Stockhammer, & Hood, 2002), has shown that a high level of exposure to community violence during childhood has short and long term negative effects on child adjustment. For example, exposure to community violence is associated with a wide range of negative psychosocial outcomes including symptoms of posttraumatic stress disorder (PTSD) and internalizing disorders (Ho, 2008; Kliewer, Lepore, Oskin, & Johnson, 1998), academic failure (Henrich, Schwab-Stone, Fanti, Jones, & Ruchkin, 2004), socio-cognitive biases in processing social information (Shahinfar, Kupersmidt, & Matza, 2001), and above all, aggressive behaviors and externalizing problems (Barkin, Kreiter, & DuRant, 2001; Gorman-Smith & Tolan, 1998; Miller, Wasserman, Neugebauer, Gorman-Smith, & Kamboukos, 1999; Scarpa, 2001). These studies share a common emphasis of focusing on communities that have an established history of violence, affecting children throughout multiple stages of childhood. Less is known about the effects of violence that erupts suddenly and returns to a relatively lower level of violence within a short period of time, as was the situation in Kisumu in early 2008.

Exposure to violence may directly affect child externalizing behaviors, but exposure to violence could also affect child externalizing behaviors indirectly by affecting parents' treatment of children. Parenting factors may help explain the link between exposure to community violence and child adjustment problems. For example, community violence negatively influences the capability of parents to interact positively with their children, decreasing parental monitoring, warmth, and communication, and increasing parents' use of harsh and punitive discipline; these aspects of negative parenting are in turn related to worse child adjustment (Aisenberg & Ell, 2005; Galambos, Barker, & Almeida, 2003; Laird, Pettit, Bates, & Dodge, 2003; Lynch & Cicchetti, 1998, 2002; Zhang & Anderson, 2010). In a study of children from low-income urban neighborhoods, Anderson (1999) found that exposure to community violence was associated with higher levels of child-rated traumatic stress and that children who were maltreated in addition to being exposed to community violence were significantly more likely to display internalizing and externalizing symptoms as compared to their peers who were not maltreated. Likewise, Gorman-Smith, Henry, and Tolan (2004) found that exceptional family functioning (characterized by high levels of positive parenting behaviors over time, structure, family cohesion, and strong beliefs about

the importance of family) reduced the risk of 5th to 7th grade boys' violence perpetration that was otherwise associated with exposure to community violence.

There is a particular risk that exposure to community violence will increase parents' use of childrearing violence. For example, Lansford and Dodge (2008) found using data from 186 cultural groups that parents were more likely to use corporal punishment with their children in societies in which other forms of violence (such as warfare and interpersonal violence between adults) were prevalent (see also Ember & Ember, 2005). The cultural spillover theory of violence posits that violence in one domain generalizes, or spills over, into other domains (Baron & Straus, 1989). According to Straus's (2004) criminogenic theory of corporal punishment, corporal punishment specifically is more frequent in contexts in which other forms of violence also are more widely accepted. Previous research suggests that there are reciprocal relations between parents' use of corporal punishment and children's behavior problems (Lansford et al., 2011). That is, children who frequently misbehave elicit more of all forms of discipline from their parents and elicit harsher, physical forms of discipline specifically (Larzelere, 2000; Lytton, 1990). In addition, parents' use of corporal punishment increases children's future behavioral and psychological problems (Gershoff, 2002). The result is a coercive, transactional process in which parents influence children and children influence parents over time (Patterson, Reid, & Dishion, 1992).

The Present Study

It is clear from previous research that both chronic community violence and long-standing political violence are related to more problematic parenting and child adjustment problems. What is less clear is to what extent exposure to short-lived political violence such as the post-election violence in Kenya would have similar implications for parenting and child adjustment. On one hand, because long-standing political violence can increase problematic parenting and child adjustment problems, exposure to post-election violence in Kenya may have similar relations to increases in parenting and child adjustment problems. Alternately, unlike exposure to chronic community violence in which there would be extended periods of exposure for social learning mechanisms to operate and for social cognitive patterns predictive of behavior problems to develop, exposure to a brief period of post-election violence may not provide these same kinds of experiences, and parenting and child adjustment may therefore remain relatively unaffected.

We examined exposure to Kenyan post-election violence in relation to childrearing violence and child externalizing problems in a sample of children ages 7–10. Previous research suggests that exposure to violence during middle childhood may have more long-lasting effects than exposure to violence either in early childhood or in adolescence (Guerra, Huesmann, & Spindler, 2003). In direct comparisons, childrearing violence has been found to be more culturally normative in Kenya compared to five other nations: China, India, Italy, Philippines, and Thailand (Gershoff et al., 2010, Lansford et al., 2005). Other studies have documented the prevalence of childrearing violence in other sub-Saharan African nations that have been likened to Kenya (e.g., Lansford & Deater-Deckard, 2012; Monyooe, 1996). Our study includes a focus on childrearing violence as an indicator of problematic parenting not only because of the frequency with which it is used in Kenya compared to other nations but also because childrearing violence is often closely linked to community violence exposure (Zhang & Anderson, 2010). Furthermore, in a study with mother-child dyads in six countries (including Kenya), Lansford et al. (2005) found that even though the cultural normativeness of corporal punishment moderated the link between corporal punishment and child adjustment, there was a clear association across all countries between more frequent use of corporal punishment and child aggression and anxiety.

We addressed three research questions: First, was children's exposure to political violence following the disputed 2007 Kenyan elections associated with more child externalizing problems? We hypothesized that greater exposure to post-election violence would be related to greater child externalizing problems. Second, was mothers' exposure to post-election violence associated with more violence directed from the mother to the child? We hypothesized that mothers who were exposed to more post-election violence would themselves behave more violently in disciplining their child. Third, was mothers' or children's exposure to post-election violence associated with more child externalizing problems after taking into account childrearing violence and with more childrearing violence after taking into account child externalizing problems? We hypothesized that child externalizing problems in one year would predict childrearing violence in the next year and that childrearing violence in one year would predict child externalizing problems in the next year but that exposure to post-election violence would independently contribute to child externalizing and childrearing violence.

Method

Participants

One hundred Luo youth and their mothers were recruited from schools in Kisumu, Kenya as part of a larger cross-national study of parent behavior and child adjustment (see [author citation], 2011; [author citation], 2011). Kisumu city, which is the political center of the Luo, who are Kenya's third largest ethnic group, bore the brunt of PEV due to its perceived support for the opposition party. The disputed December 2007 election pitted one of the notable Luo political leaders against an incumbent president. Densely populated and impoverished parts of Kisumu were especially affected by PEV, as were women and children. A large number of children were displaced, separated from parents, or orphaned (OHCHR, 2008).

After obtaining IRB approval from Maseno University in Kisumu and Duke University in Durham, NC, USA, which oversees the larger cross-national study, the Kisumu Municipal Education office was contacted to request a list of schools within the city. The Municipality's area of educational jurisdiction covered six zones, including some found in the rural parts of the town. The obtained information was used to determine whether the schools located within the urban areas were public or private and to categorize the socioeconomic status of the schools' neighborhoods (slums, middle SES, and high SES). Four schools from each SES category were selected, for a total of 12 schools. The participants who were selected were representative of the public and private schools and also the population of Kisumu. After receiving permission from school principals, classroom teachers in grades 2 and 3 distributed letters describing the project to the children in their classes. Parents who were willing to learn more about the study returned contact forms to the classroom teacher. Letters were sent home with 250 children in schools where the neighborhoods most closely matched the socioeconomic distribution of Kisumu, with the majority of residents in the lower social strata. Two hundred forms were returned giving permission for the research team to contact the family, and 100 families were contacted by telephone or home visit and interviewed. Because the sample was part of a larger study in which 100 families from each of 13 cultural groups across 9 countries were interviewed, funding was only available to include 100 families in the study. Once the target number of families was reached and interviews were scheduled, no additional families were contacted. The resulting sample of children included 61% girls. The mean age of the sample was 8.46 years ($SD = .64$). Children's mothers had an average age of 32.45 years ($SD = 6.21$) and had completed an average of 10.69 years of school ($SD = 3.65$). Income questions were not asked at time 1, but at time 2, 77% of the families had an annual household income of less

than the equivalent of \$5,000 US dollars, representing the lowest social strata, 15% had an income of \$5,000–\$9,999 representing the middle social strata, and 7% had an income of \$10,000 or higher, representing the highest social strata. At time 2 and time 3, 95 of the original 100 families were re-interviewed. These 95 families did not differ from the 5 families that did not provide time 2 data on child gender, $\chi^2(1) = .00$, child age, $F(1, 98) = 3.83$, maternal age, $F(1, 98) = .69$, or maternal education, $F(1, 98) = 1.41$, all $p > .05$.

Procedures and Measures

At Time 1 (beginning approximately 4 months following the disputed elections and the onset of violence) and again at Time 2 and Time 3 (approximately 12 and 24 months later, respectively), interviews were conducted one-on-one in places deemed by participants as convenient. These included the target children's schools, parents' work places, residences, and public places such as churches and community halls. Mother interviews included additional measures that were part of the larger study and lasted approximately 1.5 hours. Child interviews lasted approximately 45 minutes. Children were given redeemable text book vouchers worth 1,000 Kenyan shillings (approximately \$11 USD), and mothers were given a modest honorarium of 1,000 Kenyan shillings to thank them for their time and reimburse their transportation expenses.

Post-election violence—At Time 2, mothers completed a measure of post-election violence exposure (PEV), initially used by Schwartz & Proctor (2000) to measure exposure to community violence. Because the PEV erupted just before Time 1 interviews began, arrangements were already underway to conduct the Time 1 interviews, and no new measures could be added at that point. Instead, the PEV measure was added to the Time 2 interviews. This measure included two parts. First, the mothers were asked to identify which of 14 violent acts they personally experienced, and indicate the time frame during which they experienced that act using a scale from 1 to 5, with 1=within the last month and 5=more than two years ago. Next, as an adaptation of the measure, mothers were asked to go through the list again and indicate which of those 14 acts “specifically describe your experiences during the post-election violence in late 2007 and early 2008?” (see Table 1). In this way, we were able to include only those items that were interpreted by parents to be directly related to the violence that followed the disputed election. The directions further indicated that the ratings should be “experiences that you've had with other people who don't live at home with you.” The 14 statements that followed included items such as the following: How many times has somebody threatened to hurt you really badly? How many times has somebody hit, punched, or slapped you? How many times has somebody thrown a bottle, rock, or other hard object at you? Items were summed to create a scale reflecting mothers' exposure to post-election violence ($\alpha = .71$). In the second part, mothers were asked which of these same items their children witnessed as a direct result of the elections; items were summed to create a scale reflecting children's witnessing of post-election violence ($\alpha = .81$). It is important to note that in the first part, mothers directly experienced the event (e.g., mothers had gunshots fired at them), whereas in the second part, mothers indicated whether children had seen this happen to anyone in the community, not just mothers. While there is likely some overlap in children's and mothers' experiences (if the mother was threatened and the child witnessed the threat, the experience will be included in both scores), each scale also potentially represents two different pathways to affecting child adjustment: one through the mother's direct experiences and one through the child's witnessing of violent events. The timing of the interviews was such that this measure was administered, on average, 1 year and 4 months after the disputed election. Mothers were asked to reflect about what occurred in the months immediately following the election, which immediately preceded data collection at Time 1.

Childrearing violence—Mothers completed a measure of childrearing violence developed for UNICEF's Multiple Indicator Cluster Survey (UNICEF Division of Policy and Planning, 2006). The items for this measure were developed by first convening an international panel of 25 experts to identify candidate items from existing validated measures of caregiving (e.g., the WorldSAFE survey questionnaire, Sadowski, Hunter, Bangdiwala, & Munoz, 2004; the Parent-Child Conflict Tactics Scale, Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). Candidate items were then field tested in North and South America, South Asia, and Africa. A second international panel of 27 experts then evaluated the items' performance within and across diverse cultures and settings to settle on the final items to be included in the MICS (Kariger et al., in press). Mothers were asked if they or anyone in their household had engaged in any of the following 6 behaviors with the child in the last 30 days: shook him/her; spanked, hit or slapped him/her on the bottom with bare hand; hit him/her on the bottom or elsewhere on the body with something like a belt, hairbrush, stick or other hard object; hit or slapped him/her on the face, head or ears; hit or slapped him/her on the hand, arm, or leg; beat him/her up with an implement (hit over and over as hard as one could). Items were summed to create a childrearing violence scale at Time 1 ($\alpha = .76$), Time 2 ($\alpha = .77$), and Time 3 ($\alpha = .75$).

Child externalizing behaviors—At Times 1, 2, and 3, children completed 30 items from the externalizing scale of the Youth Self-Report of the Achenbach Child Behavior Checklist (Achenbach, 1991). The Achenbach measures have been translated into at least 69 languages, and over 5,000 published studies have used this well-validated and psychometrically sound measure with at least 60 cultural groups (Achenbach, 2004; Crijnen, Achenbach, & Verhulst, 1997). Children indicated whether each behavior was “not true” (coded as 0), “somewhat or sometimes true” (coded as 1), or “very true or often true” (coded as 2). Items included, “I disobey at school,” “I get in many fights,” “I am mean to others,” “I lie or cheat,” and “I have a hot temper.” Items were summed to compute an externalizing behavior scale at Time 1 ($\alpha = .72$), Time 2 ($\alpha = .88$), and Time 3 ($\alpha = .75$).

Analysis Plan

We first present descriptive and correlational analyses. We then test the primary hypotheses using structural equation modeling because this analysis approach enables us to test simultaneously the hypothesized relations among exposure to post-election violence, childrearing violence, and children's externalizing problems, taking into account continuity in childrearing violence and children's externalizing problems over time. Our hypothesis that greater exposure to post-election violence would be related to greater child externalizing problems would be supported by positive and significant paths between these two constructs in the model. Likewise, our hypothesis that mothers who were exposed to more post-election violence would themselves behave more violently in disciplining their child would be supported by positive and significant paths in the model between mothers' exposure to PEV and subsequent childrearing violence. Finally, our hypothesis that child externalizing problems in one year would predict childrearing violence in the next year and that childrearing violence in one year would predict child externalizing problems in the next year but that exposure to post-election violence would independently contribute to child externalizing and childrearing violence would be supported by significant cross-lagged paths in the model between childrearing violence and child externalizing problems as well as significant paths between exposure to PEV and each of the other two constructs (i.e., childrearing violence and children's externalizing problems).

These analyses were conducted using Amos 17 (Arbuckle, 2008). Missing data were handled using full information maximum likelihood, which results in parameter estimates that are generally superior to those obtained with listwise deletion or other *ad hoc* methods

(Schafer & Graham, 2002). To assess model fit, we examined the χ^2/df ratio, the Comparative Fit Index (CFI; Bentler, 1990), the non-normed fit index (NNFI; Bentler & Bonnet, 1980), and the Root Mean Square Error of Approximation (RMSEA; Steiger, 1990). Good model fit is reflected in χ^2/df ratios < 3 (Kline, 1998), CFI values $> .90$ (Bentler, 1990; Bollen, 1990; Kline, 1998), NNFI values $> .95$ (Hu & Bentler, 1999), and RMSEA values $< .08$ (Browne & Cudeck, 1993).

Results

Preliminary Analyses

Table 1 displays the percentage of mothers who reported that they experienced and that their children witnessed each form of violence following the election. As shown, some forms of violence were witnessed by the majority of participants; 80% of mothers and 97% of children were reported to have some exposure to at least one act of violence. For example, 54% of mothers saw a dead body in the aftermath of the election, and 95% of children heard gunshots. We created composite variables reflecting the number of forms of violence mothers and children witnessed. Eighty percent of mothers experienced and 97% of children witnessed at least one form of PEV. The percentage is lower for mothers than children because 11 of the items asked about violence directed specifically at the mother, whereas these items asked about violence that the child witnessed, regardless of whom the violence targeted.

Descriptive statistics and correlations among the key constructs are shown in Table 2. As shown, there was significant stability in child-reported externalizing behavior from Time 2 to Time 3 and in mother-reported childrearing violence at all three time points. Child externalizing at Time 1 and Time 2 were significantly correlated with childrearing violence at Time 3. Time 2 child-reported externalizing behavior was significantly correlated with more mother-reported childrearing violence at Time 1 and with mothers' reports of children's witnessing more PEV. Mothers' exposure to PEV was related to less mother-reported Time 2 childrearing violence. Mothers' reports of their own exposure to PEV were significantly correlated with their reports of their children's witnessing of PEV.

Structural Equation Model Testing Hypothesized Relations

We analyzed a structural equation model that included autoregressive and cross-lagged paths for Time 1, Time 2, and Time 3 child self-reported externalizing behavior and Time 1, Time 2, and Time 3 mother-reported childrearing violence. The model also included mother-reported exposure to post-election violence and mother-reported child witnessing of post-election violence (see Figure 1). We initially tested multi-group models to test for possible gender and SES differences in the hypothesized paths. The model in which structural paths were constrained to be equal for boys and girls did not fit significantly worse than the model in which all paths were free to vary by gender, $\Delta\chi^2(20) = 17.76$. Similarly, the model in which paths were constrained to be equal for families in which the mothers' education was above the median (greater than 11 years) did not fit significantly worse than the model in which paths were free to vary across maternal education groups, $\Delta\chi^2(20) = 30.61$. In preliminary models, we also controlled for length of time between the disputed election and the Time 2 interview when questions regarding exposure to PEV were asked. The inclusion of this control variable did not substantively change any of the results. Additionally, household income (which was only collected at time 2) and maternal education were not significantly correlated with mothers' reports of their own experience of PEV or their child's exposure to PEV. Therefore, the results reported below include the entire sample and do not control for length of time since the election or SES.

The main model fit the data well, $\chi^2(6) = 3.75$, *ns*, $\chi^2/df = .62$, CFI = 1.00, NNFI = 1.00, RMSEA = .00. As shown in Figure 1, there was significant stability in children's reports of externalizing from Time 2 to Time 3 and in mothers' reports of childrearing violence from Time 1 to Time 2 and from Time 2 to Time 3 (the autoregressive paths in Figure 1). Our first hypothesis, that children's exposure to PEV would be related to more child externalizing problems, was supported, as indicated by the significant and positive path between mothers' reports of children's witnessing of PEV and child-reported externalizing behavior at Time 2. Our second hypothesis, that mothers who were exposed to more PEV would use more childrearing violence, was not supported. Instead, the path between mothers' exposure to PEV and mother-reported Time 2 childrearing violence was negative, indicating that mothers who were exposed to more PEV reported using less childrearing violence. Our third hypothesis had three components. The aspect of the hypothesis positing that child externalizing problems in one year would predict childrearing violence in the next year was supported by the significant paths between child externalizing at Time 1 and childrearing violence at Time 3 and between child externalizing at Time 2 and childrearing violence at Time 3. The aspect of the hypothesis positing the reciprocal relation, that childrearing violence in one year would predict child externalizing problems in the next year, was supported by the significant path between mother-reported childrearing violence at Time 1 and child-reported externalizing behavior at Time 2. Finally, the aspect of the hypothesis that exposure to PEV would independently contribute to child externalizing and childrearing violence was supported with respect to the link between children's witnessing of PEV and their externalizing problems at Time 2 but not with respect to any significant links between mothers' exposure to PEV and childrearing violence.

Discussion

This study was designed to examine the relation of exposure to Kenyan post-election violence to childrearing violence and child externalizing problems. Most previous research linking political violence exposure with child adjustment problems examines long-term violence that occurs over many developmental stages in a child's life, but this paper is unique in that it looks at a short period of political violence that lasted weeks rather than years. In doing so, we found that even though the intense violence subsided relatively quickly, it remained related to child externalizing behavior more than one year later.

Shortly after the disputed 2007 elections during which widespread political violence occurred, we asked mothers to report on their use of childrearing violence and children to report on their own externalizing behaviors. Our first hypothesis, that exposure to post-election violence would be related to externalizing behaviors, was supported in that children's exposure to post-election violence was related to externalizing behavior at Time 2. Considerable research on children's exposure to chronic community violence and long-standing political violence also has found associations between children's exposure to violence and externalizing behaviors (Barbarin, Richter, & deWet, 2001; Cummings, Goeke-Morey, Schermerhorn, Merrilees, & Cairns, 2009; Lynch, 2003; Qouta et al., 2003). Our findings suggest that exposure to short-lived political violence is related to children's externalizing problems in the year immediately after the violence but was not related to a change in externalizing problems from Time 2 to Time 3, after taking into account prior externalizing.

Our second hypothesis, that mothers' experience of post-election violence would be related to more childrearing violence, was not supported. We found no relation between mothers' experience of PEV and their childrearing violence in the structural equation model. The most straightforward explanation for the lack of a significant path between mothers' experience of post-election violence and their use of childrearing violence is that this

relation simply does not exist. Theories that have posited relations between parents' exposure to societal violence and their use of childrearing violence (e.g., Baron & Straus, 1989; Straus, 2004) have focused on long-term societal norms regarding violence and long-standing community violence rather than on short-lived political violence. It is possible that intense but short-lived political violence, as was the case with the PEV examined here, is not sufficient to alter parents' use of violence with their children.

Our third hypothesis had several components. The first of these components, that child externalizing behavior would predict subsequent childrearing violence, was supported: Child externalizing behavior at Times 1 and 2 predicted childrearing violence at Time 3. This finding makes sense in the context of previous research that has demonstrated that more difficult children elicit more corporal punishment (Lansford et al., 2011; Patterson, 2002). The second component of the third hypothesis, that childrearing violence would predict subsequent child externalizing, was supported in that Time 1 childrearing violence predicted Time 2 child externalizing behavior. This finding is consistent with a large body of research demonstrating links between harsh corporal punishment and children's adjustment problems across many cultures (Bender et al., 2007; Gershoff et al., 2010; Lansford et al., 2005). Additionally, children's exposure to PEV was related to increases in externalizing behavior, suggesting that exposure to even short-lived political violence may have a traumatic impact that requires additional intervention.

Limitations

The main limitation of our study was that it did not include measures of childrearing violence or child externalizing behavior prior to the outbreak of political violence. Because the questions were retrospective (we asked parents to report about what happened 1 year earlier), our data may be further limited by exact recall of the events. In addition, our study did not distinguish between different types of political violence and their effect. Kerestes (2006), for example, in his study with Croatian children exposed to political violence, found that events that were more proximal to the child (witnessing a killing or torture, having a family member wounded, being displaced) were associated with higher teacher- and self-reported aggression, and lower levels of teacher-reported prosocial skills three years after the war had ended, documenting a long-term effect. Although only 5 families were lost to attrition, the sample size of 100 at Time 1 and 95 at Times 2 and 3 is still small. Finally, because prior research illustrates the important role dosage plays in the relation between violence exposure and child adjustment, our research was limited in that the dosages of childrearing violence and exposure to political violence were not measured; each measure only asked parents to respond "yes" or "no" regarding these variables.

Implications

Clinical and policy implications—Although research that focuses on sudden and relatively short-lived political violence is similar in many ways to research on chronic community violence and long-standing political violence, PEV also presents unique challenges. Sudden political violence interrupts and often eliminates access to health services, community support, employment, and food. Perhaps most traumatically, access is limited at the very time it is most needed (Baingana, Fannon, & Thomas, 2005). Even when the sudden violence diminishes considerably after a few weeks or months, effects can be long-lived. After more than 1,000 deaths and hundreds of thousands of lives disrupted, sectarian tensions can run deep; danger lurks in assuming that parent-child relationships and child adjustment problems disappear when the life-threatening events subside. To the contrary, the violent history and resulting fragility of inter-ethnic relations could give rise to increased levels of child adjustment problems that could be assessed and addressed as necessary in the clinical setting, even after the initial period of violence subsides. Our

findings point to a need to continue to explore and monitor parenting behavior and child adjustment across multiple domains and time points in order to minimize negative effects of PEV.

Research implications—Although we were not able to establish harsh parenting as a mediator between short-term political violence exposure and child adjustment, other measures of family functioning should be researched, including the parenting behavior of fathers, and other parenting characteristics and responses. Further research is also needed to determine what protective factors within the individual, family, and community may make children more resilient. Factors other than parenting, such as children's sense of emotional insecurity or social information processing, may also mediate the relation between exposure to political violence and child adjustment. Future research measuring the efficacy of interventions that follow periods of political violence is also warranted and should distinguish between proximal acts and more distant acts, so that results can better inform the practice of providing needed recovery services to those most affected.

Conclusion

Sudden and relatively short-lived politically-motivated violence has a unique and complex association with parenting and children's adjustment. The well-established relation between child externalizing behavior in one year and childrearing violence in another was supported by this research, and child externalizing behaviors persisted more than 1 year after the exposure to PEV even after controlling for previous levels of child externalizing behavior. These results point to a long term approach to rehabilitation and family resilience that should include a focus on within-family response to violence as well as ways to reintroduce community stability in the form of health services, food supplies, employment, and education. Future research should examine the individual child and parent characteristics that lead to greater resilience and reduced externalizing behaviors in the face of any kind of political violence.

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References

- Achenbach, TM. Integrative guide for the 1991 CBCL 14–18, YSR and TRF Profiles. University of Vermont, Department of Psychiatry; Burlington, VT: 1991.
- Achenbach, TM. Cross-cultural perspectives on developmental psychopathology. In: Gielen, UP.; Roopnarine, J., editors. *Childhood and adolescence: Cross-cultural perspectives and applications*. Prager; Westport, CT: 2004. p. 411-429.
- Aisenberg E, Ell K. Contextualizing community violence and its effects - An ecological model of parent-child interdependent coping. *Journal of Interpersonal Violence*. 2005; 20:855–871. doi: 10.1177/0886260505276833. [PubMed: 15914706]
- Anderson, E. *Code of the street: Decency, violence, and the moral life of the inner-city*. Norton; New York: 1999.
- Arbuckle, JL. AMOS 17.0 [Computer Software]. Small Waters Corp; Chicago: 2008.
- Baingana, F.; Fannon, I.; Thomas, R. *Mental health and conflicts: Conceptual framework and approaches*. World Bank; Washington: 2005.
- Barbarin OA, Richter L, deWet T. Exposure to violence, coping resources, and psychological adjustment of South African children. *American Journal of Orthopsychiatry*. 2001; 71:16–25. [PubMed: 11271713]

- Barkin S, Kreiter S, DuRant RH. Exposure to violence and intentions to engage in moralistic violence during early adolescence. *Journal of Adolescence*. 2001; 24:777–789. doi: 10.1006/jado.2001.0431. [PubMed: 11790057]
- Baron, L.; Straus, MA. *Four theories of rape in American society: A state-level analysis*. Yale University Press; New Haven, CT: 1989.
- Bender HL, Allen JP, McElhaney KB, Antonishak J, Moore CM, Kelly HO, Davis SM. Use of harsh physical discipline and developmental outcomes in adolescence. *Development and Psychopathology*. 2007; 19:227–242. doi: 10.1017/S0954579407070125. [PubMed: 17241492]
- Bentler PM. Comparative fit indexes in structural models. *Psychological Bulletin*. 1990; 107:238–246. [PubMed: 2320703]
- Bentler PM, Bonnet DG. Significance tests and goodness-of-fit in the analysis of covariance structures. *Psychological Bulletin*. 1980; 88:588–606.
- Bollen KA. Overall fit in covariance structure models: Two types of sample size effects. *Psychological Bulletin*. 1990; 107:256–259.
- Browne, MW.; Cudeck, R. Alternative ways of assessing model fit. In: Bollen, KA.; Long, JS., editors. *Testing structural equation models*. Sage Publications; New York, NY: 1993. p. 136-162.
- Crijnen AAM, Achenbach TM, Verhulst FC. Comparisons of problems reported by parents of children in 12 cultures: Total problems, externalizing, and internalizing. *Journal of the American Academy of Child and Adolescent Psychiatry*. 1997; 36:1269–1277. [PubMed: 9291729]
- Cummings EM, Goeke-Morey MC, Schermerhorn AC, Merrilees CE, Cairns E. Children and political violence from a social ecological perspective: Implications from research on children and families in Northern Ireland. *Clinical Child and Family Psychology Review*. 2009; 12:16–38. doi:10.1007/s10567-009-0041-8. [PubMed: 19229611]
- Cummings EM, Schermerhorn AC, Merrilees CE, Goeke-Morey MC, Shirlow P, Cairns E. Political violence and child adjustment in Northern Ireland: Testing pathways in a social-ecological model including single- and two-parent families. *Developmental Psychology*. 2010; 46:827–841. doi: 10.1037/A0019668. [PubMed: 20604605]
- Dubow E, Boxer P, Huesmann LL, Landau S, Dvir S, Shikaki K, Ginges J. Cumulative effects of exposure to violence on posttraumatic stress in Palestinian and Israeli youth. *Journal of Clinical Child and Adolescent Psychology*. 2012; 41(6):837–844. [PubMed: 22540411]
- Dubow EF, Boxer P, Huesmann LR, Shikaki K, Landau S, Gvirsman SD, Ginges J. Exposure to conflict and violence across contexts: Relations to adjustment among Palestinian children. *Journal of Clinical Child and Adolescent Psychology*. 2010; 39:103–116. doi: 10.1080/15374410903401153. [PubMed: 20390802]
- Ember CR, Ember M. Explaining corporal punishment of children: A crosscultural study. *American Anthropologist*. 2005; 107:609–619.
- Galambos NL, Barker ET, Almeida DM. Parents do matter: Trajectories of change in externalizing and internalizing problems in early adolescence. *Child Development*. 2003; 74:578–594. [PubMed: 12705574]
- Gershoff ET. Corporal punishment by parents and associated child behaviors and experiences: A meta-analytic and theoretical review. *Psychological Bulletin*. 2002; 128:539–579. [PubMed: 12081081]
- Gershoff ET, Grogan-Kaylor A, Lansford JE, Chang L, Zelli A, Deater-Deckard K, Dodge KA. Parent discipline practices in an international sample: Associations with child behaviors and moderation by perceived normativeness. *Child Development*. 2010; 81:487–502. [PubMed: 20438455]
- Gorman-Smith D, Henry DB, Tolan PH. Exposure to community violence and violence perpetration: The protective effects of family functioning. *Journal of Clinical Child and Adolescent Psychology*. 2004; 33:439–449. [PubMed: 15271602]
- Gorman-Smith D, Tolan P. The role of exposure to community violence and developmental problems among inner-city youth. *Development and Psychopathology*. 1998; 10:101–116. [PubMed: 9524810]
- Guerra NG, Huesmann LR, Spindler A. Community violence exposure, social cognition, and aggression among urban elementary school children. *Child Development*. 2003; 74:1561–1576. [PubMed: 14552414]

- Haj-Yahia MM. Political violence in retrospect: Its effect on the mental health of Palestinian adolescents. *International Journal of Behavioral Development*. 2008; 32:283–289. doi: 10.1177/0165025408090971.
- Henrich CC, Schwab-Stone M, Fanti K, Jones SM, Ruchkin V. The association of community violence exposure with middle-school achievement: A prospective study. *Journal of Applied Developmental Psychology*. 2004; 25:327–348. doi: 10.1016/j.appdev.2004.04.004.
- Ho J. Community violence exposure of Southeast Asian American adolescents. *Journal of Interpersonal Violence*. 2008; 23:136–146. doi: 10.1177/0886260507307653. [PubMed: 18087036]
- Hu L, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*. 1999; 6:1–55.
- Kariger P, Frongillo EA, Engle P, Britoo PMR, Sywulka SM, Menon P. Indicators of family care for development for use with multi-country surveys. *Journal of Health Population and Nutrition*. in press.
- Kerestes G. Children's aggressive and prosocial behavior in relation to war exposure: Testing the role of perceived parenting and child's gender. *International Journal of Behavioral Development*. 2006; 30:227–239. doi: 10.1177/0165025406066756.
- Kliwer W, Lepore SJ, Oskin D, Johnson PD. The role of social and cognitive processes in children's adjustment to community violence. *Journal of Consulting and Clinical Psychology*. 1998; 66:199–209. [PubMed: 9489275]
- Kline, RB. *Principles and practice of structural equation modeling*. Guilford; New York, NY: 1998.
- Laird RD, Pettit GS, Bates JE, Dodge KA. Parents' monitoring-relevant knowledge and adolescents' delinquent behavior: Evidence of correlated developmental changes and reciprocal influences. *Child Development*. 2003; 74:752–768. [PubMed: 12795388]
- Lansford JE, Bornstein MH. Parenting attributions and attitudes in diverse cultural contexts: Introduction to the Special Issue. *Parenting: Science and Practice*. 2011; 11(2–3):87–101. doi: 10.1080/15295192.2011.585552.
- Lansford JE, Chang L, Dodge KA, Malone PS, Oburu P, Palmerus K, Quinn N. Physical discipline and children's adjustment: Cultural normativeness as a moderator. *Child Development*. 2005; 76:1234–1246. [PubMed: 16274437]
- Lansford JE, Criss MM, Laird RD, Shaw DS, Pettit GS, Bates JE, Dodge KA. Reciprocal relations between parents' physical discipline and children's externalizing behavior during middle childhood and adolescence. *Development and Psychopathology*. 2011; 23:225–238. doi: 10.1017/S0954579410000751. [PubMed: 21262050]
- Lansford JE, Deater-Deckard K. Childrearing discipline and violence in developing countries. *Child Development*. 2012; 83:62–75. [PubMed: 22277007]
- Lansford JE, Dodge KA. Cultural norms for adult corporal punishment of children and societal rates of endorsement and use of violence. *Parenting: Science and Practice*. 2008; 8:257–270.
- Larzelere RE. Child outcomes of nonabusive and customary physical punishment by parents: An updated literature review. *Clinical Child and Family Psychology Review*. 2000; 3:199–221. [PubMed: 11225737]
- Lynch M. Consequences of children's exposure to community violence. *Clinical Child and Family Psychology Review*. 2003; 6:265–274. [PubMed: 14719638]
- Lynch M, Cicchetti D. An ecological-transactional analysis of children and contexts: The longitudinal interplay among child maltreatment, community violence, and children's symptomatology. *Development and Psychopathology*. 1998; 10:235–257. [PubMed: 9635223]
- Lynch M, Cicchetti D. Links between community violence and the family system: Evidence from children's feelings of relatedness and perceptions of parent behavior. *Family Process*. 2002; 41:519–532. [PubMed: 12395572]
- Lytton H. Child and parent effects in boys' conduct disorder: A reinterpretation. *Developmental Psychology*. 1990; 26:683–697.
- Margolin G, Gordis EB. The effects of family and community violence on children. *Annual Review of Psychology*. 2000; 51:445–479.

- Miller LS, Wasserman GA, Neugebauer R, Gorman-Smith D, Kamboukos D. Witnessed community violence and antisocial behavior in high-risk, urban boys. *Journal of Clinical Child Psychology*. 1999; 28:2–11. [PubMed: 10070603]
- Monyooe LA. Teachers' views towards corporal punishment in Lesotho schools. *Psychological Reports*. 1996; 79:121–122.
- Oburu P. Attributions and attitudes of mothers and fathers in Kenya. *Parenting: Science and Practice*. 2011; 11(2–3):152–162. doi: 10.1080/15295192.2011.585561.
- Patterson, GR. The early development of coercive family process. In: Reid, JB.; Patterson, GR.; Snyder, J., editors. *Antisocial behavior in children and adolescents: A developmental analysis and model for intervention*. American Psychological Association; Washington, D.C: 2002. p. 22–44.
- Patterson, GR.; Reid, JB.; Dishion, TJ. *Antisocial boys*. Vol. 4. Castalia Pub Co; 1992.
- Phinney JS, Ong AD. Conceptualization and measurement of ethnic identity: Current status and future directions. *Journal of Counseling Psychology*. 2007; 54:271–281. doi: 10.1037/0022-0167.54.3.271.
- Qouta S, Punamaki RL, El Sarraj E. Prevalence and determinants of PTSD among Palestinian children exposed to military violence. *European Child & Adolescent Psychiatry*. 2003; 12:265–272. doi: 10.1007/s00787-003-0328-0. [PubMed: 14689258]
- Qouta S, Punamaki RL, El Sarraj E. Child development and family mental health in war and military violence: The Palestinian experience. *International Journal of Behavioral Development*. 2008; 32:310–321. doi: 10.1177/0165025408090973.
- Sadowski LS, Hunter WM, Bangdiwala SE, Munoz SR. The World Studies of Abuse in the Family Environment: A model of multi-national study of family violence. *Injury Control and Safety Promotion*. 2004; 11:81–90. [PubMed: 15370344]
- Salzinger S, Feldman RS, Stockhammer T, Hood J. An ecological framework for understanding risk for exposure to community violence and the effects of exposure on children and adolescents. *Aggression and Violent Behavior*. 2002; 7:423–451. doi: 10.1016/s1359-1789(01)00078-7.
- Scarpa A. Community violence exposure in a young adult sample: Lifetime prevalence and socioemotional effects. *Journal of Interpersonal Violence*. 2001; 16:36–53.
- Schafer JL, Graham JW. Missing data: Our view of the state of the art. *Psychological Methods*. 2002; 7:147–177. [PubMed: 12090408]
- Schwartz D, Proctor LJ. Community violence exposure and children's social adjustment in the school peer group: The mediating roles of emotion regulation and social cognition. *Journal of Consulting and Clinical Psychology*. 2000; 68:670–683. [PubMed: 10965642]
- Shahinfar A, Kupersmidt JB, Matza LS. The relation between exposure to violence and social information processing among incarcerated adolescents. *Journal of Abnormal Psychology*. 2001; 110:136–141. [PubMed: 11261387]
- Steiger JH. Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research*. 1990; 25:173–180.
- Straus, MA. *The primordial violence: Corporal punishment by parents, cognitive development, and crime*. Alta Mira Press; Walnut Creek, CA: 2004.
- Straus MA, Hamby SL, Finkelhor D, Moore DW, Runyan D. Identification of child maltreatment with the parent-child Conflict Tactics Scales: Development and psychometric data for a national sample of American parents. *Child Abuse & Neglect*. 1998; 22:249–270. [PubMed: 9589178]
- UNICEF. Children in conflict and emergencies. 2011. Retrieved from <http://www.unicef.org/protection/armedconflict.html>
- UNICEF Division of Policy and Planning. *Multiple Indicator Cluster Survey manual 2005: Monitoring the situation of children and women*. UNICEF; New York, NY: 2006.
- United Nations High Commissioner for Human Rights. Report from OHCHR Fact-finding mission to Kenya 6–28 February 2008. United Nations; Geneva, Switzerland: 2008. p. 1–19.
- Zhang SJ, Anderson SG. Low-income single mothers' community violence exposure and aggressive parenting practices. *Children and Youth Services Review*. 2010; 32:889–895. doi: 10.1016/j.childyouth.2010.02.010.

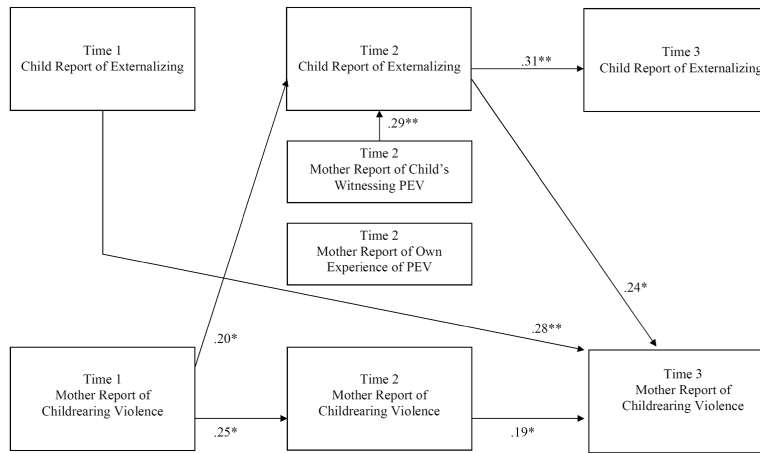


Figure 1. Standardized path coefficients in structural equation models examining links among child externalizing behavior, childrearing violence, mothers' exposure to post-election violence, and children's witnessing post-election violence. All structural paths were included in the models, but only significant paths are shown in the figure for ease of reading. $\chi^2(6) = 3.75$, *ns*, $\chi^2/df = .62$, CFI = 1.00, RMSEA = .00. * $p < .05$. ** $p < .01$.

Table 1

Percent of Mothers Who Experienced and Children Who Witnessed Post-Election Violence in Kenya (n=95)

Form of Violence	Percent of Mothers	Percent of Children
1. Breaking into home	15	16
2. Threatening to hurt	20	39
3. Chased by gangs	15	31
4. Hit, punched, or slapped	7	35
5. Stole something using violence	12	22
6. Gunshots	16	95
7. Tried to hurt with knife	7	12
8. Tried to hurt with stick	9	25
9. Threw a hard object	11	26
10. Used violence to get something	21	12
11. Arrested or taken away by police	8	44
12. Saw someone killed	25	2
13. Saw dead body	54	13
14. Saw someone carry weapons	25	14
Any exposure	80	97

Note. Items 1–11 referred to violence experienced directly by mothers (e.g., the mother was chased by gangs, someone threw a hard object at the mother) and witnessed by children (e.g., the child saw someone being chased by gangs, the child saw someone throwing a hard object).

Table 2

Means, Standard Deviations, and Correlations Among Variables

	1	2	3	4	5	6	7	8
1. T1 externalizing	--							
2. T2 externalizing	.20	--						
3. T3 externalizing	.18	.35**	--					
4. T1 childrearing violence	.14	.21*	-.03	--				
5. T2 childrearing violence	.08	.01	-.01	.29**	--			
6. T3 childrearing violence	.37***	.33**	.10	.29**	.27*	--		
7. Parent exposure to PEV	.05	-.02	.05	-.14	-.25*	-.05	--	
8. Child witnessing of PEV	.04	.22*	.19	-.14	-.18	.00	.42***	--
<i>N</i>	100	95	95	100	95	95	95	95
<i>M</i>	6.71	8.48	9.20	2.32	1.88	2.78	2.43	3.82
<i>SD</i>	4.63	7.15	5.09	1.87	1.71	1.92	2.30	2.94

Note. T1 = Time 1. T2 = Time 2. T3 = Time 3. PEV = post-election violence.

* $p < .05$.

** $p < .01$.

*** $p < .001$.