# Domestic Violence and Childhood Exposure to Armed Conflict: Attitudes and Experiences

Giulia La Mattina[†]
University of South Florida
Department of Economics
Email: glamattina@usf.edu

Olga N. Shemyakina[‡]
Georgia Institute of Technology
School of Economics
Email: olga.shemyakina@econ.gatech.edu

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## Abstract

We examine the effect of exposure to armed conflict in childhood and youth on women and men's attitudes toward domestic violence in Sub-Saharan Africa. More specifically, our study identifies age periods during childhood that are most critical for the formation of beliefs on domestic violence as well as mechanisms underlying these effects.

We merge individual data on the attitudes of 438,000 women and 172,000 men who were interviewed between 2001 and 2015 in 20 Sub-Saharan African countries with geo-coded data on all armed conflicts in the region between 1946 and 2006. Our identification strategy exploits geographic variation in conflict intensity across sub-national regions and temporal variation in exposure to conflict events across birth cohorts.

Men and women who were exposed to conflict between ages 6 and 10 appear to be the most vulnerable to internalizing surrounding violence and expressing more acceptance of domestic violence. Women who experienced conflict during this age were also more likely to report being a victim of domestic violence. We explore several mechanisms and observe that reduced educational attainment is one plausible channel through which childhood exposure to conflict affected women's acceptance of domestic violence later in life.

**JEL Codes:** J16, J12, O12
**Keywords:** Domestic violence, Attitude formation, Conflict

# 1. Introduction

Do experiences early in life affect attitudes in adulthood? If so, what is the mechanism through which early life experiences contribute to the formation of later life attitudes and preferences? A growing body of literature has addressed these questions in a variety of contexts, including the impact of macroeconomic conditions on attitudes toward redistribution and the effect of conflict on political attitudes (Adhvaryu and Fenske 2014, Giuliano and Spilimbergo 2014). Our paper contributes to this area of inquiry by examining how early life experiences affect tolerance of domestic violence. Identifying factors that contribute to the acceptance of domestic violence is important since domestic violence is widespread: Recent estimates show that 30 percent of women become victims of domestic violence at some point in their lives. The incidence is greater in developing countries. Sub-Saharan Africa is the region with the highest prevalence, with 37 percent of women affected (e.g. Bamiwuye and Odimegwu 2014; WHO 2005, 2009, 2013). Moreover, domestic violence is harmful for the health of women and children (Campbell 2002, Aizer 2011), and greater acceptance of domestic violence as a social norm may encourage actual abuse (WHO 2005).

We posit whether growing up during an armed conflict affects one's future attitudes toward domestic violence and the probability of becoming a victim or perpetrator of domestic violence. We combine individual survey data from 20 countries in sub-Saharan Africa with geo-coded data on all armed conflict that occurred in the region between 1946 and 2006. Our matched data set includes 438,000 women and 172,000 men from 38 surveys covering the period between 2001 and 2015. To estimate the effect of childhood exposure to armed conflict on the acceptance and experience of domestic violence, we employ a difference-in-differences strategy that exploits geographic variation in conflict intensity across sub-national regions and variation in exposure to conflict events across birth cohorts.

Our results indicate that individuals who live in a region where there was an armed conflict when they were 6 to 10 years old are more tolerant toward domestic violence than individuals who were not exposed to conflict by age 20. We do not observe similar effects for individuals who were exposed to conflict at ages 0 to 5 or 11 to 20. The estimated effects are sizable. Exposure to conflict increases tolerance of domestic violence by 2 percent for women and 3.8 percent for men, and increases chances that an individual woman experiences domestic violence by 5 percent. Endogenous migration does not seem to drive the results.

We explore potential mechanisms though which conflict may affect men and women's attitudes and women's experiences, including female educational attainment, female age at first marriage, differences in age and education between spouses, male educational attainment and husbands' exposure to conflict during childhood. We find that loss of education during conflict is one of the potential channels that facilitate a higher acceptance of domestic violence by women, but it is not a plausible mechanism behind the effect of conflict on women's experience of domestic violence and men's attitudes toward domestic violence. We explore a partner's exposure to conflict in childhood as a potential channel that may drive female exposure to domestic violence. The estimation results for a matched sample of women and their husbands reveal that husbands' exposure to conflict before age 5 increases the probability that women report domestic violence by 7.6 percent.

This paper contributes to two strands of literature. First, it adds to research that studies the long-term effects of early life exposure to armed conflict on adults' attitudes with a focus on civilians.[1, 2] Adhvaryu and Fenske (2014), for example, show that being exposed to armed

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[1] See Blattman and Miguel (2010) for a broader review of the microeconomic consequences of civil wars. See Buvinic et al. (2013) and Buvinic et al. (2014) for broad reviews on the gendered impacts of conflict.
[2] Several studies examine the impact of direct participation in armed conflict during adulthood – military service - on later life violent behavior, including domestic violence (Cesur and Sabia (2016), Rohlfs (2010) and Lindo and Stoecker (2014)). Miguel et al. (2011) analyze the impact of soccer players' indirect exposure to conflict in their country of origin on violent behavior in the soccer field.

conflict between ages 0 and 14 had no effect on political engagement and attitudes in adulthood. Of special interest is the study by Gutierrez and Gallegos (2016), who show that girls' exposure to conflict between ages 0 and 16 increased their probability of becoming victims of domestic violence later in life, and identify changes in attitudes as a potential channel.[3] Second, our study is related to previous research on the impact of historical factors on current gender attitudes (Alesina et al. (2011), Alesina et al. (2016)).[4]

We extend previous work in several significant ways. First, the scope of our analysis is broader in that we consider the impact of early life exposure to armed conflict on both men and women's attitudes toward domestic violence later in life. In addition, the present study covers a broad population based on pooled data from 20 countries across sub-Saharan Africa, improving the external validity of our results compared with the previous literature that often focused on single country studies. Second, we investigate a novel mechanism, conflict-induced reductions in education levels during childhood, through which childhood exposure to armed conflict may contribute to later life attitudes and behavior concerning domestic violence. The presence of this mechanism is in addition to the commonly accepted notion that early life exposure to armed conflict normalizes other types of violence throughout one's life. Third, we provide more precise evidence than earlier work as to the range of ages during childhood that are most susceptible to the long-term effects of exposure to conflict.[5] The latter two contributions provide insight into polices that might be employed to mitigate the

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[3] Calderón et al. (2011) and La Mattina (2017) also studied the effect of civil conflict on domestic violence.

[4] Multiple studies show that attitudes toward gender roles are often transmitted between generations with children adopting the attitudes of their parents (Fernández et al. (2004), Thornton et al. (1983), Dhar et al. (2014)).

[5] Previous studies on the impact of childhood exposure to conflict on gender and political attitudes defined childhood as a broad period from birth to adolescence and did not attempt to identify specific age periods that are critical for attitudes formation. More specifically, Adhvaryu and Fenske (2014) examined the impact of exposure during age 0-14 and Gutierrez and Gallegos and Gutierrez (2016) studied the effect of exposure during age 0-16. Turning to a broader literature on formation of attitudes, Giuliano and Spilimbergo estimated the impact of exposure to recessions during age 18-25.

negative long-term effects of conflict exposure. Finally, we add to the literature on the historical determinants of gender attitudes by examining the effect of historical events that happened during childhood.

The remainder of the paper is organized as follows. Section 2 describes data used in this paper. Section 3 presents the estimation strategy. Sections 4 and 5 present our empirical results and robustness checks. Section 6 discusses potential channels through which conflict affects attitudes toward and experiences of domestic violence. Section 7 concludes.

## 2. Data and Summary Statistics

The analysis in this paper combines data on the time and location of armed conflict with individual data on attitudes toward and experiences of domestic violence.

### 2.1 Data on Conflict

Our source of conflict data is the Version 4-2006 of the Uppsala Conflict Data Program (UCDP)/International Peace Research Institute (PRIO) Armed Conflict Dataset (Gleditsch et al. 2002). This dataset contains information on armed conflicts that happened between 1946 and 2006 globally. An armed conflict is defined as: "a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths." (Harbom and Högbladh (2006), p. 4). The unit of observation is a conflict-year event. Conflicts are classified according to their intensity: minor armed conflicts, which led to less than 1,000 deaths, and wars, which led to at least 1,000 deaths. We examine the effect of exposure to

any conflict event in the main analysis and we analyze heterogeneous impacts by conflict intensity as a robustness check.[6]

We use a geocoded version of the 2006 UCDP/PRIO data, which provides information on the latitude, longitude and radius of the conflict-year event. We refer to Adhvaryu and Fenske (2014), Raleigh et al. (2012) and Hallberg (2012) for the detailed descriptions of the data set. The geographic location of the conflict-event as indicated by its latitude and longitude captures the mid-point of all battles associated with the conflict-event. The area affected by the battles is measured by the radius, which is given in 50 km intervals. We create circles ("buffers") in ArcGIS with center given by the latitude and longitude of the conflict event, setting the radius of the buffer equal to the radius of the conflict event. We merge the buffers with administrative boundaries of sub-national regions in Sub-Saharan countries using a spatial join in ArcGIS.[7] We then merge the measure of conflict exposure at the region level with information on respondents' region of residence in the DHS survey.

We define a region in a country as being affected by a conflict in a certain year if the region contains the whole buffer of the conflict-year event or a part of it, and the country is listed in the "conflict territory" variable.[8] Figure 1 shows the locations of all conflict events in Sub-Saharan Africa.

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[6] Conflicts are also classified according to their type - extra systemic, interstate, internal and internationalized internal (UCDP/PRIO Armed Conflict Dataset Codebook 2006). Since we are interested in how exposure to armed conflict in general affects attitudes toward and experiences of domestic violence, in this paper we do not distinguish between different types of conflicts.

[7] Shape files for countries and sub-national regions were downloaded from the GADM website (http://www.gadm.org/).

[8] Alternatively, one could measure conflict exposure at the level of the survey cluster: given geographic coordinates of a cluster, the cluster would be affected by conflict if it is contained in the buffer. Adhvaryu and Fenske (2014) use a similar method to identify clusters affected by conflict in the third round of Afrobarometer surveys. In this paper, we use data from multiple rounds of the DHS and include locality fixed effects in the difference-in-differences regression. When the administrative boundaries of regions changed between one DHS survey and the subsequent one, we followed the method used in Wilde et al. (2016) to create regions that are consistent over time.

## 2.2 Data on Attitudes Toward and Experience of Domestic Violence

Individual data on men's and women's *attitudes* toward domestic violence and women's *experience* of spousal abuse are obtained from the Demographic and Health Surveys (henceforth DHS), which is a set of nationally representative household surveys. We utilize only data from waves IV, V and VI as earlier waves do not contain information on both attitudes toward and experiences of domestic violence.[9] Eligible men and women living in the selected households were asked questions on attitudes toward spousal violence in the core DHS questionnaire.[10] One randomly selected woman in each household was administered a separate module on experiences of domestic violence (see Kishor 2005 for details).

Our primary measure of spousal abuse is a dummy variable that takes the value of one if the woman was ever beaten by her current husband or partner in case she is currently married or by her most recent partner in case she is divorced, separated or widowed.[11] This variable includes experiences of severe physical violence, mild physical violence and sexual violence. As a robustness check, we analyze these various forms of domestic violence separately.

Our primary measure of attitudes towards domestic violence is based on questions asking men and women whether they think wife-beating is justified in various situations, such as when a woman neglects the children, burns the food, goes out without telling her husband, argues with him or refuses having sex. We construct a set of indicator variables that take the

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[9] Waves prior to wave IV did not include questions on attitudes toward wife-beating. For domestic violence, most countries started to include a module on domestic violence with wave IV. Exceptions are Colombia (1990 and 1995), Dominican Republic (1999), Egypt (1995), India (1998/1999), Nicaragua (1998), Philippines (1993), South Africa (1998) and Uganda (1995/1996).

[10] Typically, all women aged 15 to 49 were interviewed, but eligibility criteria for men were survey-specific. For instance, all men aged 15 to 59 in 50% of the households were interviewed in the 2005 Rwanda DHS, and all men aged 15 to 49 were interviewed in the 2007 Liberia DHS. See the DHS website for information on eligibility criteria for each survey (http://dhsprogram.com/data/available-datasets.cfm).

[11] The questions on domestic violence refer to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women. See Appendix Table A1 for details.

value of one if the respondent says that spousal violence is justified in each situation. We also create a count variable for the number of situations in which domestic violence is justified and an indicator that is equal to one if a respondent said that domestic violence is justified in at least one situation.

Table 1 reports summary statistics for the main dependent variables. Over 438,000 women and almost 172,000 men responded to all questions on attitudes toward wife beating. More than 118,000 women answered all questions on domestic violence. On average, women reported that wife beating is justified in 1.7 situations and 55% of women in the sample affirmed that it is justified in at least one situation. Interestingly, men's attitudes appear to be less permissive of spousal abuse. On average men responded that it is justified in 0.9 situations and 36% of men responded that spousal abuse is justified in at least one situation. For men and women, neglecting the children, going out without telling her husband and arguing are the main incidents for which domestic violence is justified. Among women who were surveyed: 28.2% of women say that they ever experienced at least one type of domestic violence including "less severe", "sexual violence", and "severe" types. 25.2% of women reported being victims of "less severe" domestic violence. 8.9% of women experienced any severe violence from husband/partner. 8.9% of women said that they experienced sexual violence.[12]

We match individual information on attitudes and experience of spousal abuse with conflict in respondents' region of residence. In the main analysis, we include only DHS surveys from

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[12] Less severe violence includes the following violence types perpetrated by husband/partner: *ever been pushed, shook or had something thrown*; *ever been slapped*; *ever been punched with fist* or *hit by something harmful*; and/or *ever had arm twisted* or *hair pulled by husband/partner*. Severe violence includes the following behaviors by husband/partner: *ever been kicked or dragged by husband/partner*; *ever been strangled or burnt by husband/partner*; and/ or *ever been threatened with knife/gun or other weapon by husband/partner*. Finally, sexual violence includes the following types of aggressive behavior by husband/partner: *ever been physically forced into unwanted sex by husband/partner*; *ever been forced into other*; and/or *ever been physically forced to perform sexual acts respondent didn't want to*.

countries that experienced a conflict during the period 1946-2006.[13] We later include DHS surveys from countries that did not experience a conflict during the period 1946-2006 as a robustness check. All individuals in the sample were born in 1946 or later, as data on conflict are not available before this date.[14] Appendix Table A2 provides a list of the surveys included in the sample for the main analysis. Appendix Table A3 reports summary statistics for the main explanatory variables.

Rates of conflict exposure are roughly similar for men and women. Table 2 shows the proportion of women exposed to conflict during childhood by country and by cohort. Burundi, Democratic Republic of Congo, Ethiopia and Mozambique are the countries with the highest percentage of individuals exposed to conflict during childhood. Over 60 percent of cohorts born in the 1980s were affected by conflict.

Appendix Table A4 displays the correlation matrix between childhood exposure to conflict, domestic violence and attitudes toward spousal abuse. For both men and women, exposure to conflict during childhood is positively correlated with the number of situations in which they report domestic violence is justified and with the probability of saying that wife beating is justified in at least one situation. For women, exposure to conflict is also positively correlated with the probability of having been victim of domestic violence by the current or most recent husband/partner.

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[13] Since everyone was exposed to conflict by age 20 in Chad, we exclude this country from the analysis, as there is not enough within-country variation. We also exclude Congo-Brazzaville because it does not contain all the variables on attitudes toward domestic violence.

[14] Since the earliest survey is from 2001 and women who were older than 49 were not interviewed, the oldest women were born in 1952 and we did not have to exclude any woman from the sample. Because in some surveys men older than 49 were interviewed, 886 men were born before 1946. We excluded these observations, which came from the following surveys: Burkina Faso 2003, Cameroon 2004, Chad 2004, Congo Brazzaville 2005, Ethiopia 2011, Ghana 2003, Lesotho/2004-, Madagascar 2003-04, Mali 2001, Mozambique 2003-04, Nigeria 2003, Rwanda 2000, Rwanda 2005 and Senegal 2005.

## 3. Empirical Methods

To examine the impact of exposure to conflict at young age on formation of attitudes toward domestic violence and experiences of domestic violence later in life, we start with an estimation of the following baseline regression equation:

$$Y_{irkt} = \alpha + \sum_{a=1}^{4} \beta_a Conflict_{rka} + \delta_k + \gamma_r + \xi_t + \theta' X_i + \varepsilon_{irkt}$$

$Y_{irkt}$ is an outcome (attitudes toward domestic violence or the experience of spousal abuse) for an individual $i$ who was born in year $k$ and was living in region $r$ at the time of the survey ($t$). $Conflict_{rka}$ is a binary indicator that takes the value of 1 if region $r$ was affected by conflict when individuals born in year $k$ were of age $a$. We consider exposure during four age periods (five years intervals): age 0 to 5, age 6 to 10, age 11 to 15 and age 16 to 20. These intervals are conventional 5-year cohort terms. Each individual dummy controls for a specific period during which an individual was exposed to armed conflict. Potentially an individual could be exposed to conflict in all four periods. The control groups include those who were not exposed to conflict by age 20, which includes individuals who were aged older than 20 at the time of the conflict as well as those who were never exposed to conflict. Individuals who were born after the end of the conflict would also be in the control group.

$\delta_k$ is a year of birth fixed effect, which accounts for unobservable shocks affecting outcomes in the same way for all individuals born in the same year. It helps to control for changes in gender roles across birth cohorts that may result, for instance, in younger cohorts being less likely to accept wife-beating than older cohorts (Arestoff and Djemai 2016). $\gamma_r$ is a region fixed effect, controlling for unobservable factors common to all individuals living in the same region. $\xi_{ct}$ are survey year dummies, which measure period effects and account for changes in attitudes toward domestic violence, spousal abuse and reporting behavior that occur over

time within one country.[15] $X_i$ is a vector of individual characteristics including an indicator for urban residence, dummies for religion and a quadratic age term, which accounts for changes in attitudes over the life cycle (Arestoff and Djemai 2016). We estimate the regressions using ordinary least squares (OLS) and cluster the standard errors at the region level to account for serial correlation within regions (Bertrand et al. 2004).

$\beta_a$ is the difference-in-differences (DiD) estimator. It is identified under the assumption that trends in domestic violence and attitudes across birth cohorts would have followed the same trends in regions that were affected by the conflict and regions that were not affected by the conflict, had the conflict not occurred. To control for differential trends in domestic violence and acceptance of wife beating at the region level that may confound the results, we include region-specific linear trends. Thus, in some specifications we augment the model of equation 1 (Model 1) with a country-specific linear birth cohort trend ($\pi_c \cdot year\ of\ birth$, Model 2) or a region-specific linear birth cohort trend ($\gamma_r \cdot year\ of\ birth$, Model 3) to account for unobservable cohort and country/region specific common trends.[16]

## 4. Results

### 4.1 Empirical Results: Women

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[15] Survey year fixed effects are identified only for countries for which at least two waves of the survey are available. See Appendix Table A2 for a list. We do not control for age since it would introduce collinearity in the regression. Because the data is not longitudinal, we cannot identify age, birth cohort and period fixed effects separately.

[16] Due to lack of pre-conflict comparable data, we cannot examine trends in attitudes and experiences of domestic violence across regions before the conflicts.

Table 3 reports the first set of estimation results from our regression analysis based on Equation 1. Exposure to conflict during ages 6 to 10 increases the number of situations in which wife-beating is justified by 0.04 situations, and the coefficient is statistically significant at the one percent level. The results are largely consistent across specifications. The coefficient is the largest at 0.045 in the most conservative model (Model 3), which includes a full set of controls and region-specific cohort trends (Column 3). The estimates of the regression coefficients on "exposure to conflict at age 6-10" are largely stable across regression models. In terms of magnitude, the estimated effects range from 2.4 percent of the sample mean of the dependent variable (Column 1) to 2.7 percent (Column 3). Across all models, we find that the variables for exposure to conflict at various ages are jointly significant.

Columns 4-6 report results for the same set of specifications with a new dependent variable: an indicator variable that is equal to one if an individual said that wife beating is justified in at least one situation. Results indicate that "exposure to conflict at age 6-10" raises acceptance of domestic violence by one percentage point, which is equivalent to two percent of the sample mean of the dependent variable. The estimates are stable across models and statistically significant at least at the five percent level. An F-test reveals that the variables for conflict exposure are jointly significant.

In Table 4, we estimate the impact of conflict exposure on the acceptances of different types of domestic violence, or indicators that are equal to one if an individual responded affirmatively to one of the five statements: "wife beating is justified if she…". We only report results of Model 3. Again, individuals exposed to conflict during age 6-10 appear to be the most vulnerable to internalizing surrounding violence. The estimated coefficients on a dummy variable for experienced conflict during 6-10 years of age are positive and statistically significant for the following statements: "wife beating is justified if she…":

"…neglects children" (0.008), "…argues with him" (0.012), and "…refuses to have sex with him" (0.010). For these statements, the estimated coefficients on the explanatory variables that measure exposure to conflict at different ages are jointly statistically significant. The estimated coefficients in Col. 3 and 4 are statistically significant at the one percent level. The estimated effects are equivalent to 1.9 percent of the sample mean for "neglects children", 3.4 percent for "argues with him" and 3.2 percent for "refuses to have sex with him".

Table 5 examines childhood exposure to conflict and women's experiences of domestic violence. Columns 1-3 report results from regressions where the dependent variable is "ever experienced any violence". Exposure to conflict between ages 0-5, 6-10 and 11-15 is statistically significantly associated with "ever experienced any violence" in Models 1 and 2, with the estimated coefficients on exposed at age 6-10 being the largest in size and having a highest significance level at least at the 5 percent level. According to the most conservative estimate (Model 3), exposure to conflict between age 6 and 10 increases the probability of experiencing domestic violence by 1.4 percentage points, or 5 percent of the sample mean. In columns 4-6 of Table 5 we disaggregate the dependent variable and report results for a woman that experienced less severe, severe or sexual domestic violence (Model 3). Once again, the estimated coefficient is statistically significant at the one percent level for the 6-10 age group, but only for "less severe violence" experience. The coefficient indicates that if a woman lived in a conflict region between age 6 and 10, then she was 1.7 percentage points more likely to report an experience of domestic violence, which is equivalent to 6.7 percent of the sample mean. The only other coefficient estimate that is statistically significant (at the 5% level) is the coefficient on "exposure to conflict at age 11-15". The chances of experiencing "sexual violence" in a relationship increase by one percentage point for women in this category (11 percent of the sample average). In results not reported, we find that childhood exposure to conflict does not have a significant effect on the probability that

women were victims of domestic violence in the past year. The coefficient estimates are positive but not statistically significant.[17]

## 4.2 Empirical Results: Men

In this section, we report results of the estimations of baseline models for the sample of men (Tables 6 and 7). Again, exposure to conflict at age 6-10 increases the number of situations in which wife-beating is justified by 0.031 situations, and the coefficient is statistically significant at the ten percent level in the most conservative model (Column 3). The estimate indicates that exposure to conflict between age 6 to 10 raises men's acceptance of wife beating by 3.6 percent relative to the sample mean. Interestingly, we find that exposure to conflict during age 16 to 20 significantly *reduces* men's acceptance of wife-beating, and the effect is sizeable. This effect is consistent with previous findings that civil conflict increases prosocial behavior (Bauer et al. 2016).

In columns, 4-6, where the dependent variable is "wife beating is justified in at least one situation", the coefficient on "exposed at age 6-10" is very stable and statistically significant at the one percent level. The most conservative estimate suggests that being exposed to conflict between age 6-10 increases chances that a man will respond affirmatively to one of the "attitudes" questions by 1.3 percentage points, or 3.7 percent of the sample mean. The estimated effect for the sample of men is roughly twice the estimated effect for the sample of women in Table 3.

Table 7 reports regressions estimates for the individual responses to the set of questions on attitudes toward domestic violence. We only report results for Model 3 for the space

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[17] These results are available upon request.

constraints. The coefficient estimates are positive and statistically significant for conflict exposure between age 6 and 10, for the following two statements: "wife beating is justified if she neglects the children" and "argues with him". This result is consistent with the significance of the estimates for the sample of women in Table 4, columns 2 and 3. On the contrary, exposure to conflict during age 16 to 20 reduces the likelihood that men say that wife beating is justified only when the wife burns the food, suggesting that this specific statement drives the negative coefficient estimate for this age category in Table 6.

## 5. Additional Specifications and Robustness Checks

### 5.1 Robustness: Placebo Test

Following Gutierrez and Gallegos (2016), as a placebo test, we include in the regressions a term for women' exposure to armed conflict before she was born, namely exposure 1- 5 years before her birth. We expect a woman's conflict exposure prior to her birth to have a small or no impact on her attitudes toward and experiences of domestic violence later in life. Appendix Table A6 reports the results. Reassuringly, exposure to conflict before birth has no impact on women's and men's acceptance of wife-beating later in life or on the probability that women become victims of domestic violence.  The results are similar when we restrict the sample to women who are matched with their husbands (see section 6.2 for more details on this sample).

### 5.2 Robustness Tests: Migration

The DHS surveys contain information on the sub-national region of residence, but they do not provide information on region of residence during childhood and region of birth. This

data feature raises concerns regarding measurement error in conflict exposure as well as selection bias due to endogenous migration. Classical measurement error is of a lesser concern since we expect it to bias our estimates against finding an effect (attenuation bias). On the other hand, endogenous migration could affect the composition of the population in conflict and non-conflict regions along dimensions that are not observable in the data and may be correlated with domestic violence, which may lead to selection bias. For instance, if individuals with fewer social connections lacked the means to migrate out of conflict-affected regions, and social connections were negatively correlated with acceptance of domestic violence, then our estimates may be biased toward finding an effect. Alternatively, if persons that are more vulnerable were more likely to migrate out of conflict-affected regions, and vulnerability was positively associated with acceptance of domestic violence, then our estimates would be biased against finding an effect.

We next turn to the data to learn more about the size and the direction of the bias.[18] We exploit information on the number of years the respondent has lived in the current place of residence and estimate the results separately for those who have lived there since birth ("non-migrants") and those who have moved after birth ("migrants").[19] Table 8 reports the results. Since the variable on years lived in the current place is not available for all surveys, we first re-run estimates for the restricted sub-sample of data (Columns 1 and 4) and then further restrict our analytical sample to the non-migrant and migrant sub-samples (Columns 2, 5 and Columns 3, 6 respectively).[20] For women' and men's attitudes (Panels A and C), the effect of

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[18] The analysis in this section follows Leon (2012).

[19] More specifically, we define an individual as never migrated if he/she responded that he/she always lived in the current place of residence or if he/she has lived in the current place of residence for a number of years equal to or greater than his/her age.

[20] Appendix Table A8 presents information on the availability of data on the number of years lived in the current place of residence across DHS surveys. It shows that for most recent survey, Wave VI, these data are not available. For women, these limited data availability reduces the sample size for the set of regressions that make use of data on attitudes toward and experiences of domestic violence as a dependent variable to roughly 224,000 (attitudes) and 51,000 (experiences) observations (Table 8).

conflict exposure at ages 6 to 10 appears to be driven by non-migrants: for them, the coefficient is larger and more statistically significant than for migrants. However, for men's attitudes the difference in the coefficients is not statistically significant from zero, suggesting that endogenous migration is not driving the results. For women's attitudes, the difference in the coefficients is marginally insignificant for the number of situations in which domestic violence is justified (columns 2 and 3, p-value=0.101). This result may be explained by measurement error in our measure of childhood exposure to conflict biasing the coefficients toward zero for men and women who migrated (attenuation bias). However, since the difference in coefficients is marginally insignificant, the bias due to selective migration is not likely to be large. On the contrary, for women's experiences of domestic violence (Panel B), the effect of conflict exposure between age 6 and 10 seems to be driven by those who migrated, but again the coefficients are not statistically different from each other (p-value=0.186).[21]

Since individuals who ever migrated may be different from the stayers, we estimate the means and differences in observable characteristics between these sub-samples. Individuals who never migrated appear to be different from those that migrated. For example, migrants tend to be older, have more schooling, live in wealthier households and are more likely to be married than those who never moved (Table 9). These results suggest that migrants and non-migrants may also differ in terms of non-observable characteristics.

In sum, the results in Tables 8 and 9 provide some weak evidence that that endogenous migration may lead to downward bias in the estimates for women's acceptance of wife

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Restricting the sample to women who never migrated further decreases the sample size to about 104,000 observations for attitudes and 19,000 observations for experiences. For men, excluding surveys that do not contain information on years lived in the current place of residence reduces the sample to roughly 71,000 observations. Excluding migrants further reduces the sample to about 41,000 observations.

[21] This result is consistent with findings by Gulesci (2017).

beating, and it should not affect the estimates for men's acceptance and women's experience of domestic violence.

**5.3 Robustness Tests: Adding Countries with No Armed Conflict**

Next, we enlarge our control group by including data for countries in sub-Saharan Africa that did not experience armed conflict between 1946 and 2006 as documented in our main source of conflict data (see notes to Appendix Table A8 for a list of surveys included in the analysis). Appendix Table A8 shows that the main results are robust to including surveys from these countries.

**5.4 Heterogeneity by Conflict Intensity: Wars vs. Minor Conflict**

In Appendix Table A5, we examine whether the impact of exposure to conflict varies with conflict intensity. Panels A and B report the estimates of the effect of exposure to wars and minor conflict respectively. Wars are defined as conflict events with "at least 1000 battle-related deaths in a given year" (Harbom and Högbladh (2006), p. 10). Minor armed conflicts are defines as events with "between 25 and 999 battle-related deaths in a given year"(ibid).[22]

The results confirm that exposure between age 6 and 10 has the largest and most significant effect. For women's acceptance of wife-beating, the estimated effect does not vary with conflict intensity. For women's experience of domestic violence, the estimated coefficient of exposure to war during age 6-10 is 2.5 times the coefficient of exposure to minor conflict, but the two coefficients are not statistically different from each other. For men's acceptance of domestic violence, the coefficients of exposure to war during age 6-10 are twice as large as

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[22] Exposure to these two types of conflict is not mutually exclusive.

the coefficient of exposure to minor conflict during age 6-10, and the difference between the coefficients is statistically significant. In sum, the results suggest that the effect of wars tends to be larger than the effect of minor conflicts for women's experience of domestic violence and men's acceptance of wife-beating. For women's tolerance of domestic violence, the effects of wars and minor conflict are very similar.

## 6. Mechanisms

### 6.1 Impact of Conflict on Education, Female Age at First Marriage and Characteristics of Marital Match

The evidence in this paper so far indicates that men and women who grew up during armed conflict have a more tolerant attitude toward domestic violence and women are also more likely to become victims of domestic violence themselves. In this section, we explore potential mechanisms that may explain why men and women are more accepting of and women experience more domestic violence. Namely, we explore whether women and men who grew up during the war received less education, whether women got married at an earlier age or whether exposure to conflict affected the education gap or age gap between spouses in a systematic way.[23] We also examine how growing up during a conflict affected male education. The results are reported in Panel A of Table 10.

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[23] There are other mechanisms through which conflict exposure may affect attitudes and experience of domestic violence, for example changes in health and labor market outcomes. Testing for these mechanisms is more challenging because domestic violence could have a direct effect on health and labor market outcomes. Therefore, we restrict our empirical investigation of mechanisms to changes in outcomes that were plausibly determined before domestic violence could occur: during childhood in the case of education and before marriage in the case of age at marriage and other marital outcomes.

These pathways were found to be among important factors affecting women's acceptance and experience of domestic violence, and women's bargaining power more broadly. With respect to female education, Mocan and Cannonier (2012), Chicoine (2016) and Friedman et al. (2016) found that women's educational attainment reduced their acceptance of wife-beating. In contrast, Erten and Keskin (2016) found that women's educational attainment increased their likelihood of being victim of psychological violence by their partner, but had no effect on physical violence, sexual violence and acceptance of domestic violence. Regarding age at marriage, previous research has shown that age at first marriage can serve as a predictor of lower bargaining power in marriage by women. Field and Ambrus (2008) found some evidence that early marriage reduces women's decision-making power within the household and restricts their mobility; while Chari et al. (2017) used a broader set of outcomes and found that the effect of age at marriage on women's decision-making power within the household is mixed. Turning to differences between partners, a few recent studies have suggested that differences in education and earnings between partners are associated with abuse and marital instability. Bertrand et al. (2015) showed that couples where the wife earns more than the husband are less satisfied with their marriage and are more likely to divorce. Cools and Kotsadam (2016) found that the incidence of domestic violence is higher in couples where one partner has more education than the other one. The literature on the determinants of men's attitudes toward domestic violence is scant and provides mixed results. Zhu and Dalal (2010) found a negative correlation between men's educational attainment and acceptance of domestic violence in a sample of Indian men who were exposed to domestic violence in their youth. On another hand, Mocan and Connonier (2012) find that education does not affect men's attitudes toward domestic violence.

Column 1 of Table 10 indicates that a woman's years of education decrease by 0.313 years (3.8 months) if a woman experienced conflict between ages 6-10 and by 0.277 years (3.3

months) if between ages 11-15 (both effects are statistically significant at the one percent level). As women in the sample on average achieved 4.4 years of education, conflict exposure during schooling years reduced women's schooling by a sizable 6.4 to 7.2 percent relative to the sample mean. Column 2 shows that a woman's exposure to conflict between ages 11 and 20 reduces her age at first marriage by 0.1 years, or about 37 days. On average, women got married at 17.9 years of age so this is a small effect. Column 3 shows that a woman's exposure between ages 11 and 15 raises the difference in years of education between partners by 6.4 percent of the sample mean, and the estimate is significant at the 10 percent level. Column 4 indicates that women's exposure to conflict between ages 16 and 20 married men who were about 2 months older than partners of women who were not exposed to conflict by age 20. This effect is equivalent to 1.7 percent of the sample mean.

Turning to male education, column 5 shows that exposure to conflict between ages 6 and 10 decreased men's years of education by 0.137 years (statistically significant at the ten percent level), exposure between ages 11 and 15 reduced years of education by 0.196 years (statistically significant at the one percent level) and exposure between ages 16 and 20 reduced years of education by 0.146 years (statistically significant at the one percent level).

In sum, the results suggest that education may be a plausible mechanism behind the estimated effect of conflict exposure between ages 6 and 10 on women's and men's attitudes toward domestic violence and women's experience of domestic violence. To investigate this channel further, we compare the estimates with and without controlling for education (Panels B and C of Table 10). For regressions that use women's attitudes as dependent variables, including years of education reduces the coefficient estimate on conflict exposure between ages 6 and 10 by about a half. For regressions that use women's experience of domestic violence or men's attitudes as dependent variables, controlling for years of education does not alter the magnitude of the coefficient estimate on exposure during ages 6 to 10.

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Additionally, since conflict exposure affects education and thus controlling for education may lead to biased estimates, in Panel D of Table 10 we estimate the "*direct effect*" of conflict exposure between ages 6 and 10 on our outcomes of interest, which is defined as the effect of conflict exposure holding years of education constant (Acharya et al. 2016). For women's attitudes, the *direct effect* is about half the size of the baseline estimate and still statistically significant at the one percent level. This result confirms that education is a substantial factor driving the effect of conflict exposure on women's attitudes, but also suggests that we cannot rule out other mechanisms that also contribute to the estimated effect. For women's experience of domestic violence and men's attitudes, the direct effect is very close to the baseline estimate, suggesting that education is not a plausible mechanism behind the effect of conflict on the experiences of domestic violence.

**6.2 Matching: Does Partner's Exposure Affect Experiences of Domestic Violence?**

Next, using a matched sample of partners, we explore whether exposure to conflict by male partners explains women's experiences of domestic violence. We create a matched data set by linking women's reporting of domestic violence with measures of conflict exposure of their current partners who were interviewed in the men's module. Note that the questions on domestic violence ask specifically about current partner for women who are currently in a union (see Appendix Table A1 for details). Since only currently married women can be matched to their husbands, and in many surveys husbands in a sub-sample of households are interviewed, the sample size is reduced to 31,168 couples (see footnote 8 for details). The prevalence of domestic violence is slightly lower than in the main sample (25 percent versus 28.2 percent).

We re-estimate the same set of regressions as in Table 3 and report results in Table 11. First, we estimate specifications with women's age-specific exposure to violence as a set of independent variables. Next, we re-estimate regressions with men's age-specific exposure used as independent variables. Last, we estimate regressions where we control for both - women's and men's age-specific exposures to violence during his/ her childhood.

We find that male exposure to armed conflict during age 0-5 is statistically significantly associated with his partner's report that she was ever a victim of domestic violence (Columns 2 and 3). The estimated effect is equivalent to 7.6 percent of the sample mean. Wife's exposure to conflict is positively associated with her being "ever a victim of DV", but the coefficients are not statistically significant for this smaller sample (Columns 1 and 3). This result suggests that matching in the marriage market is another potential mechanism through which exposure to conflict during childhood may affect domestic violence later in life. With respect to the type of violence experienced, less severe violence still seems to drive the results, while the results are less conclusive for other categories of violence.[24]

## 7. Discussion and Conclusion

Sub-Saharan Africa is the region with highest prevalence of domestic violence: recent estimates suggest that 37 percent of women experience domestic violence at least once in their lives. Understanding the factors that contribute to the acceptance and experience of domestic violence is imperative to help countries in the region reduce gender-based violence and achieve the sustainable development goal of gender equality by 2030.

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[24] These results are not reported and are available upon request.

This paper examines the effect of conflict exposure during childhood on attitudes toward and experience of domestic violence. Our findings suggest that women who were exposed to armed conflict during childhood are more likely to accept domestic violence and report having been victim of domestic violence than women who did not experience conflict by age 20. Women who were exposed to conflict during age 6-10 appear to be the most vulnerable to internalizing surrounding violence. Men who experienced conflict during their childhood – especially during age 6-10 – also report to be more accepting of "wife beating." Thus, experiencing violence early on in one's life may lead to a long-term change in attitudes and behaviors perpetuating the vicious cycle. We also find some evidence that men's experiences of conflict in early childhood increases women's experiences of domestic violence in marriage. This result is consistent with previous findings that exposure to combat and conflict increases violent behavior (Cesur and Sabia (2016), Rohlfs (2010), Lindo and Stoecker (2014), and Miguel et al. (2011)).

Our results point to age 6-10 being a vulnerable age for absorbing and internalizing observed behaviors. Since age 6-10 is the age when many children start their elementary schooling, we investigate whether changes in educational attainment are a plausible channel. We find that education losses during conflict are a significant factor behind the increase in women's acceptance of domestic violence, yet we cannot rule out that other mechanisms operated along a reduction in schooling. On the contrary, reduced educational attainment is not a plausible mechanism for men's acceptance of wife beating and women's experience of domestic violence. More research is needed to shed light on the mechanisms behind these results.

Our analysis has some limitations. First, as in other studies of catastrophic events such as famine and epidemics, our estimates are based on a sample of individuals who survived the conflict, which may lead to bias if the probability of survival is correlated with attitudes

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toward domestic violence. Second, measurement error in the conflict data may bias the estimates against finding an effect. However, the UCDP/PRIO data set is the only data set that allows us to estimate the effect of conflict in childhood on adult outcomes.

To conclude, our results bridge previous findings that higher levels of education reduce tolerance of domestic violence (e.g. Chicoine 2016; Friedman et al. 2016; Mocan and Cannonier 2012) and findings that armed violence lowers women's educational attainment (Shemyakina 2011, Singh and Shemyakina 2016). Our findings suggest that, as a preventative measure to reduce domestic violence, the world community may devote available resources to education in post conflict settings (in addition to making efforts to end the conflict itself). In addition, relevant organizations and governments may choose to target their efforts toward the age groups most likely to incur the greatest negative long-tern effects of exposure to armed conflicts.

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**Table 1: Summary Statistics for Outcome Variables**

*Attitudes toward wife beating*

| Variable | Women | | | | | Men | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Obs. | Mean | Std. Dev. | Min | Max | Obs. | Mean | Std. Dev. | Min | Max |
| N. of situations in which wife beating is justified | 438,926 | 1.655 | 1.844 | 0 | 5 | 172,095 | 0.872 | 1.422 | 0 | 5 |
| Wife beating justified in at least one situation | 438,926 | 0.546 | 0.498 | 0 | 1 | 172,095 | 0.356 | 0.479 | 0 | 1 |
| Beating is justified if she goes out without telling him | 472,944 | 0.386 | 0.487 | 0 | 1 | 182,533 | 0.204 | 0.403 | 0 | 1 |
| Beating is justified if she neglects the children | 473,517 | 0.420 | 0.494 | 0 | 1 | 183,200 | 0.247 | 0.431 | 0 | 1 |
| Beating is justified if she argues with him | 454,454 | 0.353 | 0.478 | 0 | 1 | 177,466 | 0.204 | 0.403 | 0 | 1 |
| Beating is justified if she refuses to have sex with him | 465,557 | 0.313 | 0.464 | 0 | 1 | 181,254 | 0.142 | 0.349 | 0 | 1 |
| Beating is justified if she burns the food | 455,181 | 0.201 | 0.401 | 0 | 1 | 178,231 | 0.094 | 0.292 | 0 | 1 |

*Women's experience of domestic violence*

| Variable: Ever experiences any… | Obs. | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| .. violence by current or most recent husband/partner | 118,641 | 0.282 | 0.450 | 0 | 1 |
| … less severe physical violence by current or most recent husband/partner | 118,839 | 0.252 | 0.434 | 0 | 1 |
| … severe physical violence by current or most recent husband/partner | 118,779 | 0.088 | 0.284 | 0 | 1 |
| … sexual violence by current or most recent husband/partner | 118,802 | 0.088 | 0.283 | 0 | 1 |

*Mechanisms*

| Variable | Women | | | | | Men | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Obs. | Mean | Std. Dev. | Min | Max | Obs. | Mean | Std. Dev. | Min | Max |
| Years of education | 483,080 | 4.347 | 4.545 | 0 | 26 | 210,866 | 5.941 | 4.872 | 0 | 25 |
| Woman's age at first marriage | 364,104 | 17.904 | 4.215 | 2 | 49 | | | | | |
| Difference in years of education between husband and wife | 350,408 | 1.119 | 3.781 | -20 | 21 | | | | | |
| Difference in age between husband and wife | 320,306 | 9.102 | 7.989 | -34 | 80 | | | | | |

*Notes:* The questions on women's experience of domestic violence refer to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women. See Appendix Table A2 for details.

**Table 2: Mean of Childhood Exposure to Conflict by Country and by Birth Cohort**

Mean of exposure to conflict at age 0 to 20

| Country of residence | Women | Men | Year of birth | Women | Men |
|---|---|---|---|---|---|
| Burkina Faso | 0.165 | 0.149 | 1946-1949 | na | 0.416 |
| Burundi | 0.764 | 0.714 | 1950-1954 | 0.512 | 0.383 |
| Cameroon | 0.276 | 0.290 | 1955-1959 | 0.378 | 0.347 |
| Comoros | 0.368 | 0.293 | 1960-1964 | 0.372 | 0.361 |
| Congo Dem Rep | 0.775 | 0.774 | 1965-1969 | 0.342 | 0.333 |
| Cote d'Ivoire | 0.454 | 0.361 | 1970-1974 | 0.468 | 0.457 |
| Ethiopia | 0.762 | 0.742 | 1975-1979 | 0.551 | 0.544 |
| Gabon | 0.013 | 0.030 | 1980-1984 | 0.601 | 0.589 |
| Ghana | 0.531 | 0.543 | 1985-1989 | 0.602 | 0.599 |
| Kenya | 0.323 | 0.357 | 1990-1994 | 0.542 | 0.544 |
| Lesotho | 0.222 | 0.171 | 1995-1998 | 0.543 | 0.544 |
| Liberia | 0.702 | 0.705 | | | |
| Madagascar | 0.161 | 0.175 | | | |
| Mali | 0.399 | 0.362 | | | |
| Mozambique | 0.815 | 0.812 | | | |
| Niger | 0.384 | 0.317 | | | |
| Nigeria | 0.515 | 0.553 | | | |
| Rwanda | 0.540 | 0.491 | | | |
| Senegal | 0.485 | 0.397 | | | |
| Sierra Leone | 0.648 | 0.531 | | | |

*Notes:* Summary statistics for the largest samples in Tables 3 and 6.

**Table 3: Childhood Exposure to Conflict and Women's Attitudes Toward Domestic Violence**

| Dependent variable: | N. of situations in which wife beating is justified (mean=1.655) | | | Wife beating justified in at least one situation (mean=0.546) | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Exposure to conflict at age 0-5 | -0.017 | 0.008 | 0.015 | -0.004 | 0.002 | 0.004 |
| | (0.015) | (0.015) | (0.016) | (0.004) | (0.004) | (0.004) |
| Exposure to conflict at age 6-10 | 0.040*** | 0.040*** | 0.045*** | 0.008** | 0.009*** | 0.010*** |
| | (0.014) | (0.014) | (0.014) | (0.003) | (0.003) | (0.003) |
| Exposure to conflict at age 11-15 | -0.014 | -0.009 | -0.006 | -0.000 | 0.002 | 0.002 |
| | (0.011) | (0.012) | (0.012) | (0.003) | (0.003) | (0.003) |
| Exposure to conflict at age 16-20 | 0.003 | 0.002 | 0.002 | 0.001 | 0.002 | 0.002 |
| | (0.015) | (0.014) | (0.014) | (0.004) | (0.003) | (0.004) |
| Country-specific cohort trends | No | Yes | No | No | Yes | No |
| Region-specific cohort trends | No | No | Yes | No | No | Yes |
| Observations | 438,926 | 438,926 | 438,926 | 438,926 | 438,926 | 438,926 |
| R-squared | 0.196 | 0.198 | 0.200 | 0.162 | 0.163 | 0.165 |
| F test p-value | 0.0102 | 0.0284 | 0.0121 | 0.112 | 0.131 | 0.0575 |

Notes: Underlying data from IR recode of the DHS. The results are estimated using OLS. Regressions are weighted using survey weights. Robust standard errors are clustered at the subnational region level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$ Controls included in the regressions: age, age squared, an indicator for urban residence, dummies for religion (Christian, Muslim, traditional, other religion, religion is missing; no religion is the omitted category), survey year fixed effects, region fixed effects and year of birth fixed effects. The sample includes all women who were interviewed in the core DHS module. In columns 1-3, the dependent variable is the number of situations in which wife-beating is justified (0-5). In columns 4-6, the dependent variable is a binary that takes the value of one if wife-beating is justified in at least one situation.

**Table 4: Conflict and Women's Attitudes Toward Domestic Violence in Specific Situations**

| Dependent variable: | Wife beating justified if she… | | | | |
|---|---|---|---|---|---|
| | goes out without telling him (1) | neglects the children (2) | argues with him (3) | refuses to have sex with him (4) | burns the food (5) |
| Exposure to conflict at age 0-5 | -0.003 | -0.000 | 0.004 | 0.007 | 0.003 |
| | (0.004) | (0.004) | (0.004) | (0.004) | (0.003) |
| Exposure to conflict at age 6-10 | 0.005 | 0.008** | 0.012*** | 0.010*** | 0.004 |
| | (0.004) | (0.003) | (0.004) | (0.003) | (0.003) |
| Exposure to conflict at age 11-15 | -0.000 | -0.003 | -0.005* | -0.001 | -0.000 |
| | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) |
| Exposure to conflict at age 16-20 | -0.004 | -0.002 | 0.001 | 0.002 | -0.000 |
| | (0.003) | (0.004) | (0.003) | (0.003) | (0.003) |
| Observations | 472,944 | 473,517 | 454,454 | 465,557 | 455,181 |
| R-squared | 0.139 | 0.116 | 0.161 | 0.184 | 0.111 |
| Mean of dependent variable | 0.386 | 0.420 | 0.353 | 0.313 | 0.201 |
| F test p-value | 0.248 | 0.0531 | 0.00266 | 0.0136 | 0.599 |

Notes: Underlying data from IR recode of the DHS. The results are estimated using OLS. Regressions are weighted using survey weights. Robust standard errors are clustered at the subnational region level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$ Controls included in the regressions: age, age squared, an indicator for urban residence, dummies for religion (Christian, Muslim, traditional, other religion, religion is missing; no religion is the omitted category), survey year fixed effects, region fixed effects and year of birth fixed effects. The sample includes all women who were interviewed in the core DHS module. All regressions control for region-specific linear trends in age.

**Table 5: Childhood Exposure to Conflict and Women's Experience of Domestic Violence**

| Dependent variable: | Ever experienced any violence (mean=0.282) | | | Ever experienced any… | | |
|---|---|---|---|---|---|---|
| | | | | Less severe violence (mean= 0.252) | Severe violence (mean= 0.088) | Sexual violence (mean= 0.088) |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Exposure to conflict at age 0-5 | 0.010* | 0.009* | 0.006 | 0.007 | -0.002 | 0.004 |
| | (0.006) | (0.005) | (0.006) | (0.005) | (0.004) | (0.004) |
| Exposure to conflict at age 6-10 | 0.016*** | 0.016** | 0.014** | 0.017*** | 0.005 | 0.002 |
| | (0.006) | (0.006) | (0.006) | (0.006) | (0.005) | (0.005) |
| Exposure to conflict at age 11-15 | 0.010* | 0.011* | 0.009 | 0.006 | 0.005 | 0.010** |
| | (0.006) | (0.006) | (0.006) | (0.007) | (0.005) | (0.004) |
| Exposure to conflict at age 16-20 | -0.000 | 0.001 | -0.002 | 0.000 | 0.008 | 0.002 |
| | (0.007) | (0.007) | (0.008) | (0.007) | (0.006) | (0.006) |
| Country-specific cohort trends | No | Yes | No | No | No | No |
| Region-specific cohort trends | No | No | Yes | Yes | Yes | Yes |
| Observations | 118,641 | 118,641 | 118,641 | 118,839 | 118,779 | 118,802 |
| R-squared | 0.152 | 0.153 | 0.155 | 0.132 | 0.133 | 0.097 |
| F test p-value | 0.0224 | 0.0219 | 0.0847 | 0.0635 | 0.368 | 0.165 |

Notes: Underlying data from the IR recode of the DHS. The results are estimated using OLS. Regressions are weighted using survey weights. Robust standard errors are clustered at the subnational region level. *** p<0.01, ** p<0.05, * p<0.1 Controls included in the regressions: age, age squared, an indicator for urban residence, dummies for religion (Christian, Muslim, traditional, other religion, religion is missing; no religion is the omitted category), survey year fixed effects, region fixed effects and year of birth fixed effects. The sample is restricted to women who were interviewed in the domestic violence module.

**Table 6: Childhood Exposure to Conflict and Men's Attitudes Toward Domestic Violence**

| Dependent variable: | N. of situations in which wife beating is justified (mean=0.872) | | | Wife beating justified in at least one situation (mean=0.356) | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Exposure to conflict at age 0-5 | 0.003 | 0.003 | 0.005 | 0.003 | 0.005 | 0.006 |
| | (0.017) | (0.015) | (0.015) | (0.006) | (0.005) | (0.005) |
| Exposure to conflict at age 6-10 | 0.033** | 0.028 | 0.031* | 0.014*** | 0.013*** | 0.015*** |
| | (0.015) | (0.017) | (0.017) | (0.005) | (0.005) | (0.005) |
| Exposure to conflict at age 11-15 | -0.000 | -0.011 | -0.011 | 0.003 | 0.002 | 0.002 |
| | (0.013) | (0.015) | (0.015) | (0.004) | (0.005) | (0.005) |
| Exposure to conflict at age 16-20 | -0.035** | -0.045*** | -0.043** | -0.006 | -0.008 | -0.007 |
| | (0.017) | (0.017) | (0.017) | (0.005) | (0.006) | (0.006) |
| Country-specific cohort trends | No | Yes | No | No | Yes | No |
| Region-specific cohort trends | No | No | Yes | No | No | Yes |
| Observations | 172,095 | 172,095 | 172,095 | 172,095 | 172,095 | 172,095 |
| R-squared | 0.128 | 0.130 | 0.134 | 0.124 | 0.125 | 0.129 |
| F test p-value | 0.0151 | 0.00326 | 0.00302 | 0.0533 | 0.0248 | 0.0111 |

Notes: Underlying data from the MR recode of the DHS. The results are estimated using OLS. Regressions are weighted using survey weights. Robust standard errors are clustered at the subnational region level. *** p<0.01, ** p<0.05, * p<0.1 Controls included in the regressions: age, age squared, an indicator for urban residence, dummies for religion (christian, muslim, traditional, other religion, religion is missing; no religion is the omitted category), survey year fixed effects, region fixed effects and year of birth fixed effects. The sample includes all men who were interviewed in the men's module. In columns 1-3, the dependent variable is the number of situations in which wife-beating is justified. In columns 4-6, the dependent variable is a binary that takes the value of one if wife-beating is justified in at least one situation.

**Table 7: Conflict and Men's Attitudes Toward Domestic Violence in Specific Situations**

| Dependent variable: | Wife beating justified if she… | | | | |
|---|---|---|---|---|---|
| | goes out without telling him | neglects the children | argues with him | refuses to have sex with him | burns the food |
| | (1) | (2) | (3) | (4) | (5) |
| Exposure to conflict at age 0-5 | 0.009 | 0.002 | 0.001 | 0.005 | 0.002 |
| | (0.006) | (0.005) | (0.004) | (0.005) | (0.003) |
| Exposure to conflict at age 6-10 | 0.009 | 0.016*** | 0.009** | 0.005 | 0.001 |
| | (0.006) | (0.005) | (0.004) | (0.004) | (0.004) |
| Exposure to conflict at age 11-15 | 0.004 | 0.002 | -0.002 | 0.002 | -0.001 |
| | (0.005) | (0.005) | (0.004) | (0.005) | (0.002) |
| Exposure to conflict at age 16-20 | -0.003 | -0.007 | -0.007 | -0.004 | -0.008** |
| | (0.006) | (0.006) | (0.004) | (0.005) | (0.004) |
| Observations | 182,533 | 183,200 | 177,466 | 181,254 | 178,231 |
| R-squared | 0.085 | 0.098 | 0.108 | 0.098 | 0.077 |
| Mean of dependent variable | 0.204 | 0.247 | 0.204 | 0.142 | 0.0943 |
| F test p-value | 0.127 | 5.16e-05 | 0.0541 | 0.236 | 0.0705 |

Notes: Underlying data from the MR recode of the DHS. The results are estimated using OLS. Regressions are weighted using survey weights. Robust standard errors are clustered at the subnational region level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$ Controls included in the regressions: age, age squared, an indicator for urban residence, dummies for religion (christian, muslim, traditional, other religion, religion is missing; no religion is the omitted category), survey year fixed effects, region fixed effects and year of birth fixed effects. The sample includes all men who were interviewed in the men's module. All regressions control for region-specific linear trends in age.

**Table 8 Exposure to Conflict, Attitudes and Experience for Migrants and Non-migrants**

| Panel A: Women's acceptance | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Dependent variable: | N situations DV justified | | | DV justified in at least 1 situation | | |
| Sample | Everyone | Non-migrants | Migrants | Everyone | Non-migrants | Migrants |
| Exposure to conflict at age | | | | | | |
| 0-5 | 0.024 | 0.008 | 0.025 | 0.006 | 0.002 | 0.006 |
| | (0.020) | (0.028) | (0.029) | (0.006) | (0.008) | (0.008) |
| 10-Jun | 0.073*** | 0.092*** | 0.036 | 0.014*** | 0.019** | 0.004 |
| | (0.016) | (0.025) | (0.023) | (0.005) | (0.008) | (0.007) |
| 15-Nov | 0.012 | 0.001 | -0.001 | 0.008 | 0.005 | 0.006 |
| | (0.019) | (0.026) | (0.026) | (0.005) | (0.007) | (0.006) |
| 16-20 | 0.019 | 0.018 | 0.017 | 0.008* | 0.005 | 0.009 |
| | (0.019) | (0.028) | (0.022) | (0.004) | (0.007) | (0.005) |
| Observations | 223,873 | 104,023 | 119,655 | 223,873 | 104,023 | 119,655 |
| R-squared | 0.221 | 0.229 | 0.231 | 0.171 | 0.178 | 0.178 |
| Test exposure age 6-10 | | | | | | |
| Non-migrants vs migrants | | | 0.101 | | | 0.134 |
| Mean of Y | 1.711 | 1.725 | 1.700 | 0.566 | 0.567 | 0.566 |
| Panel B: Women's experience | | | | | | |
| Dependent variable: | Ever victim of DV | | | | | |
| Sample | Everyone | Non-migrants | Migrants | | | |
| Exposure to conflict at age 0-5 | 0.002 | 0.006 | 0.002 | | | |
| | (0.010) | (0.014) | (0.014) | | | |
| Exposure to conflict at age 6-10 | 0.016 | -0.005 | 0.026 | | | |
| | (0.011) | (0.015) | (0.016) | | | |
| Exposure to conflict at age 11-15 | 0.002 | -0.003 | 0.003 | | | |
| | (0.010) | (0.019) | (0.011) | | | |
| Exposure to conflict at age 16-20 | -0.002 | 0.009 | -0.008 | | | |
| | (0.010) | (0.017) | (0.015) | | | |
| Observations | 50,620 | 18,637 | 31,958 | | | |
| R-squared | 0.145 | 0.177 | 0.139 | | | |
| Test exposure age 6-10 | | | | | | |
| Non-migrants vs migrants | | 0.186 | | | | |
| Mean of Y | 0.296 | 0.289 | 0.300 | | | |
| Panel C: Men's Acceptance | | | | | | |
| Dependent variable: | N situations DV justified | | | DV justified in at least 1 situation | | |
| Sample | Everyone | Non-migrants | Migrants | Everyone | Non-migrants | Migrants |
| Exposure to conflict at age 0-5 | 0.008 | 0.011 | -0.014 | 0.006 | 0.005 | 0.001 |
| | (0.020) | (0.029) | (0.030) | (0.007) | (0.010) | (0.010) |
| Exposure to conflict at age 6-10 | 0.021 | 0.030 | -0.005 | 0.015* | 0.023* | 0.005 |
| | (0.023) | (0.035) | (0.027) | (0.008) | (0.013) | (0.009) |
| Exposure to conflict at age 11-15 | -0.023 | -0.020 | -0.022 | 0.002 | 0.005 | -0.003 |
| | (0.021) | (0.028) | (0.029) | (0.007) | (0.009) | (0.010) |
| Exposure to conflict at age 16-20 | -0.051** | -0.079** | -0.022 | -0.008 | -0.021* | 0.004 |
| | (0.021) | (0.031) | (0.026) | (0.008) | (0.012) | (0.009) |
| Observations | 70,947 | 41,192 | 29,676 | 70,947 | 41,192 | 29,676 |
| R-squared | 0.165 | 0.168 | 0.175 | 0.152 | 0.155 | 0.164 |
| Test exposure age 6-10 | | | | | | |
| Non-migrants vs migrants | | | 0.416 | | | 0.227 |
| Mean of Y | 0.889 | 0.951 | 0.805 | 0.361 | 0.380 | 0.335 |

Notes: See notes to Tables 3, 5 and 6.

**Table 9 Differences in Observable Characteristics between Migrants and Non-migrants (Women)**

| Sample | Migrants | | | Non-migrants | | | Diff. of means | p-value |
|---|---|---|---|---|---|---|---|---|
| Variable | Obs | Mean | Std. Dev. | Obs | Mean | Std. Dev. | | |
| Women | | | | | | | | |
| Age | 119655 | 29.617 | 9.179 | 104023 | 27.782 | 9.751 | 1.835 | 0.000 |
| Years of education | 119527 | 4.662 | 4.658 | 103905 | 3.864 | 4.223 | 0.798 | 0.000 |
| Married | 119655 | 0.655 | 0.475 | 104022 | 0.521 | 0.500 | 0.134 | 0.000 |
| Wealth: Poorest | 107449 | 0.160 | 0.367 | 95392 | 0.203 | 0.402 | -0.043 | 0.000 |
| Wealth: Poorer | 107449 | 0.163 | 0.370 | 95392 | 0.201 | 0.401 | -0.038 | 0.000 |
| Wealth: Middle | 107449 | 0.178 | 0.382 | 95392 | 0.208 | 0.406 | -0.030 | 0.000 |
| Wealth: Richer | 107449 | 0.211 | 0.408 | 95392 | 0.198 | 0.398 | 0.013 | 0.000 |
| Wealth: Richest | 107449 | 0.288 | 0.453 | 95392 | 0.190 | 0.392 | 0.097 | 0.000 |
| Religion: Christian | 119655 | 0.522 | 0.499 | 104023 | 0.465 | 0.499 | 0.058 | 0.000 |
| Religion: Muslim | 119655 | 0.355 | 0.478 | 104023 | 0.384 | 0.486 | -0.030 | 0.000 |
| Religion: Traditional | 119655 | 0.015 | 0.122 | 104023 | 0.017 | 0.130 | -0.002 | 0.092 |
| No religion | 119655 | 0.020 | 0.141 | 104023 | 0.040 | 0.196 | -0.020 | 0.000 |
| Other religion | 119655 | 0.009 | 0.095 | 104023 | 0.010 | 0.098 | -0.001 | 0.010 |
| Men | | | | | | | | |
| Age | 29676 | 32.486 | 11.325 | 41192 | 30.025 | 11.732 | 2.461 | 0.000 |
| Years of education | 29637 | 7.316 | 5.011 | 41138 | 5.240 | 4.424 | 2.076 | 0.000 |
| Married | 29672 | 0.524 | 0.499 | 41189 | 0.467 | 0.499 | 0.057 | 0.000 |
| Wealth: Poorest | 27279 | 0.104 | 0.305 | 38575 | 0.219 | 0.413 | -0.115 | 0.000 |
| Wealth: Poorer | 27279 | 0.127 | 0.333 | 38575 | 0.220 | 0.414 | -0.093 | 0.000 |
| Wealth: Middle | 27279 | 0.156 | 0.363 | 38575 | 0.218 | 0.413 | -0.062 | 0.000 |
| Wealth: Richer | 27279 | 0.226 | 0.419 | 38575 | 0.201 | 0.401 | 0.026 | 0.000 |
| Wealth: Richest | 27279 | 0.386 | 0.487 | 38575 | 0.142 | 0.350 | 0.244 | 0.000 |
| Religion: Christian | 29676 | 0.600 | 0.490 | 41192 | 0.538 | 0.499 | 0.061 | 0.000 |
| Religion: Muslim | 29676 | 0.142 | 0.349 | 41192 | 0.182 | 0.386 | -0.040 | 0.000 |
| Religion: Traditional | 29676 | 0.053 | 0.225 | 41192 | 0.049 | 0.216 | 0.005 | 0.084 |
| No religion | 29676 | 0.082 | 0.274 | 41192 | 0.079 | 0.269 | 0.003 | 0.000 |
| Other religion | 29676 | 0.035 | 0.183 | 41192 | 0.026 | 0.160 | 0.008 | 0.000 |

**Table 10 Empirical analysis of mechanisms**

**Panel A Effect of female exposure on female educational attainment, age at first marriage, and age and education differences between spouses; effect of male exposure on male educational attainment.**

| Dependent variable: | Women's years of education (1) | Women's age at first marriage (2) | Difference in education b/w partners (3) | Difference in age b/w partners (4) | Men's years of education (5) |
|---|---|---|---|---|---|
| Exposure to conflict at age 0-5 | -0.147** | -0.043 | -0.002 | -0.021 | -0.009 |
| | (0.069) | (0.052) | (0.036) | (0.065) | (0.071) |
| Exposure to conflict at age 6-10 | -0.313*** | 0.001 | 0.048 | 0.008 | -0.137* |
| | (0.080) | (0.048) | (0.036) | (0.067) | (0.073) |
| Exposure to conflict at age 11-15 | -0.277*** | -0.095* | 0.072* | 0.019 | -0.196** |
| | (0.081) | (0.049) | (0.038) | (0.068) | (0.077) |
| Exposure to conflict at age 16-20 | -0.003 | -0.095** | 0.018 | 0.160*** | -0.146* |
| | (0.073) | (0.047) | (0.029) | (0.060) | (0.087) |
| Observations | 483,080 | 364,104 | 350,408 | 320,306 | 210,866 |
| R-squared | 0.475 | 0.211 | 0.096 | 0.120 | 0.396 |
| Mean of Y | 4.347 | 17.90 | 1.119 | 9.102 | 5.941 |

**Panel B Comparison of women's estimates with and without controlling for educational attainment.**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Dependent variable | N situations DV justified | | DV justified in at least 1situation | | Ever victim of DV | |
| Exposure to conflict at age | | | | | | |
| 0-5 | 0.015 | 0.004 | 0.004 | 0.001 | 0.006 | 0.006 |
| | (0.016) | (0.015) | (0.004) | (0.004) | (0.006) | (0.006) |
| 6-10 | 0.045*** | 0.024* | 0.010*** | 0.005 | 0.014** | 0.012** |
| | (0.014) | (0.013) | (0.003) | (0.003) | (0.006) | (0.006) |
| 11-15 | -0.006 | -0.024** | 0.002 | -0.002 | 0.009 | 0.008 |
| | (0.012) | (0.012) | (0.003) | (0.003) | (0.006) | (0.006) |
| 16-20 | 0.002 | -0.001 | 0.002 | 0.001 | -0.002 | -0.002 |
| | (0.014) | (0.013) | (0.004) | (0.003) | (0.008) | (0.008) |
| Years of education | | -0.058*** | | -0.015*** | | -0.004*** |
| | | (0.004) | | (0.001) | | (0.001) |
| Observations | 438,926 | 438,547 | 438,926 | 438,547 | 118,641 | 118,527 |
| R-squared | 0.200 | 0.211 | 0.165 | 0.174 | 0.155 | 0.156 |

**Panel C Comparison of men's estimates with and without controlling for educational attainment.**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Dependent variable | N situations DV justified | | DV justified in at least 1situation | |
| Exposure to conflict at age | | | | |
| 0-5 | 0.005 | 0.003 | 0.006 | 0.005 |
| | (0.015) | (0.015) | (0.005) | (0.005) |
| 6-10 | 0.031* | 0.027* | 0.015*** | 0.014*** |
| | (0.017) | (0.016) | (0.005) | (0.005) |
| 11-15 | -0.011 | -0.019 | 0.002 | -0.001 |
| | (0.015) | (0.014) | (0.005) | (0.005) |
| 16-20 | -0.043** | -0.051*** | -0.007 | -0.010* |
| | (0.017) | (0.016) | (0.006) | (0.005) |
| Years of education | | -0.040*** | | -0.013*** |
| | | (0.004) | | (0.001) |
| Observations | 172,095 | 171,928 | 172,095 | 171,928 |
| R-squared | 0.134 | 0.145 | 0.129 | 0.139 |

**Panel D: Direct effect of exposure to conflict at age 6-10**

|  | Women | Women | Women | Men | Men |
|---|---|---|---|---|---|
|  | N situations DV justified | DV justified in at least 1situation | Ever victim of DV | N situations DV justified | DV justified in at least 1situation |
| Observed coefficient | 0.024 | 0.005 | 0.012 | 0.027 | 0.014 |
| Bootstrapped s.e. | 0.011 | 0.003 | 0.007 | 0.014 | 0.004 |
| p-value | 0.027 | 0.108 | 0.071 | 0.048 | 0.002 |

Notes: Underlying data from DHS. The results are estimated using OLS. Regressions are weighted using survey weights. Robust standard errors are clustered at the subnational region level. *** p<0.01, ** p<0.05, * p<0.1 Controls included in the regressions: age, age squared, an indicator for urban residence, dummies for religion (christian, muslim, traditional, other religion, religion is missing; no religion is the omitted category), survey year fixed effects, region fixed effects and year of birth fixed effects. All regressions control for region-specific linear trends in age.

Panel A: In column 1, the sample includes all women interviewed in the core DHS module. In columns 2-4, the sample includes women who married, and for whom husband's information is not missing (columns 3 and 4). In column 5, the sample includes all men interviewed in the Men's Recode.
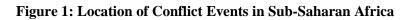
Panel B: See notes to Tables 3 and 5

Panel C: See notes to Table 6

Panel D: The "*direct effect*" of conflict exposure at age 6-10 was estimated using the stata codes by Acharya et al. (2016) and Bellemare (2016).

**Table 11 Men's Childhood Exposure to Conflict and Women's Experience of Domestic Violence**

| Dependent variable: | Ever victim of DV | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| Wife's exposure to conflict at age 0-5 | 0.008 | | 0.012 |
| | (0.012) | | (0.014) |
| Wife's exposure to conflict at age 6-10 | 0.008 | | 0.013 |
| | (0.012) | | (0.012) |
| Wife's exposure to conflict at age 11-15 | 0.022 | | 0.023 |
| | (0.015) | | (0.016) |
| Wife's exposure to conflict at age 16-20 | 0.009 | | 0.011 |
| | (0.012) | | (0.012) |
| Husband's exposure to conflict at age 0-5 | | 0.017* | 0.019** |
| | | (0.010) | (0.010) |
| Husband's exposure to conflict at age 6-10 | | -0.001 | -0.001 |
| | | (0.011) | (0.012) |
| Husband's exposure to conflict at age 11-15 | | -0.010 | -0.013 |
| | | (0.011) | (0.012) |
| Husband's exposure to conflict at age 16-20 | | 0.015 | 0.010 |
| | | (0.012) | (0.014) |
| Observations | 31,168 | 31,168 | 31,168 |
| R-squared | 0.154 | 0.154 | 0.154 |
| Mean of Y | 0.250 | 0.250 | 0.250 |

*Notes:* Underlying data from IR recode and MR recode of the DHS. The results are estimated using OLS. Regressions are weighted using survey weights. Robust standard errors are clustered at the subnational region level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$ Controls included in the regressions: age, age squared, an indicator for urban residence, dummies for religion (christian, muslim, traditional, other religion, religion is missing; no religion is the omitted category), survey year fixed effects, region fixed effects and year of birth fixed effects. The sample is restricted to women who were interviewed in the domestic violence module and whose husband was interviewed in the men's module.

**Figure 1: Location of Conflict Events in Sub-Saharan Africa**

# Domestic Violence and Childhood Exposure to Armed Conflict: Attitudes and Experiences

## Online Appendix
## (Not intended for publication)

Giulia La Mattina

University of South Florida

Department of Economics

Email: glamattina@usf.edu

Olga N. Shemyakina

Georgia Institute of Technology

School of Economics

Email: olga.shemyakina@econ.gatech.edu

**Table A1 Definition of Husband/Partner**

| Country | Year | Questions on DV refer to… |
|---|---|---|
| Burkina Faso | 2010 | *Le mari/partenaire se réfère au mari/partenaire actuel pour les femmes actuellement en union alors que pourles femmes en rupture d'union, il seréfère au mari/partenaire le plus récent.* |
| Cameroon | 2004 | *Le tableau 14.5 présente les pourcentages de femmes en union ou l'ayant été qui ont subi des actes de violence émotionnelle, physique et/ou sexuelle, actes exercés par leur mari/partenaire actuel, oule plus récent pour les femmes en rupture union.* |
| Cameroon | 2011 | *Le mari/partenaire correspond au mari/partenaire actuel pour les femmes actuellement en union et au mari/partenaire le plus récent pour les femmes divorcées, séparées ou veuves.* |
| Comoros | 2012 | *Le mari/partenaire se réfère au mari/partenaire actuel pour les femmes actuellement en union alors que pour les femmes en rupture d'union, il se réfère au mari/partenaire le plus récent.* |
| Congo Dem. Rep. | 2007 | *Le tableau 18.5 présente les pourcentages de femmes en union ou l'ayant été qui ont subi des actes de violence émotionnelle, physique et/ou sexuelle, actes exercés par leur mari/partenaire actuel ou précédent pour les femmes en rupture union.* |
| Congo Dem. Rep. | 2013-2014 | *Le mari/partenaire se réfère au mari/partenaire actuel pour les femmes actuellement en union, et au mari/partenaire le plus récent pour les femmes en rupture d'union.* |
| Cote d'Ivoire | 2011-2012 | *Le mari/partenaire correspond au mari/partenaire actuel pour les femmes actuellement en union et au mari/partenaire le plus récent pour les femmes divorcées, séparées ou veuves.* |
| Gabon | 2012 | *Le mari/partenaire se réfère au mari/partenaire actuel pour les femmes actuellement en union alors que pour les femmes en rupture d'union, il se réfère au mari/partenaire le plus récent.* |
| Ghana | 2008 | *Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women* |
| Kenya | 2003 | *Current or most recent husband.* |
| Kenya | 2008-2009 | *Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women.* |
| Liberia | 2006-2007 | *Currently married women were asked about violence perpetrated by their current husband, and formerly married women were asked about violence perpetrated by their most recent husband.* |
| Mali | 2012-2013 | *Le mari/partenaire se réfère au mari/partenaire actuel pour les femmes actuellement en union alors que pour les femmes en rupture d'union, il se réfère au mari/partenaire le plus récent.* |
| Mozambique | 2011 | *Marido/parceiro se refere ao actual marido/parceiro para as mulheres actualmente casadas e o marido/parceiro mais recente para as mulheres divorciadas, separadas e viúvas.* |
| Nigeria | 2008 | *Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women.* |
| Nigeria | 2013 | *Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women.* |
| Rwanda | 2005 | *Their current husband/partner (or the most recent husband/partner, for divorced or separated women).* |
| Rwanda | 2010 | *Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women.* |
| Sierra Leone | 2013 | *Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women.* |

Source: DHS Final Reports (http://www.dhsprogram.com/Publications/Publication-Search.cfm?type=5).

**Table A2 Surveys**

| Country | Year | Women's acceptance of domestic violence | Women's experience of domestic violence | Men's acceptance of domestic violence |
|---|---|---|---|---|
| Burkina Faso | 2003 | 11,354 | not available | 3,239 |
| Burkina Faso | 2010 | 16,920 | 9,998 | 7,216 |
| Burundi | 2010 | 8,729 | not available | 4,179 |
| Cameroon | 2004 | 9,798 | 2,570 | not available |
| Cameroon | 2011 | 14,839 | 3,986 | 6,898 |
| Comoros | 2012 | 4,593 | 2,526 | 2,049 |
| Congo Democratic Republic | 2007 | 8,573 | 2,842 | 8,139 |
| Congo Democratic Republic | 2013-2014 | 17,437 | 5,677 | not available |
| Cote d'Ivoire | 2011-2012 | 8,667 | 4,510 | 4,532 |
| Ethiopia | 2011 | 15,989 | not available | 13,696 |
| Gabon | 2012 | 6,338 | 3,418 | 4,528 |
| Ghana | 2003 | 5,578 | not available | 4,829 |
| Ghana | 2008 | 4,717 | 1,831 | 4,481 |
| Kenya | 2003 | 7,514 | 4,305 | 2,730 |
| Kenya | 2008-2009 | 7,975 | 4,895 | 3,260 |
| Lesotho | 2004-2005 | 6,807 | not available | 2,579 |
| Lesotho | 2009-2010 | 7,316 | not available | 3,210 |
| Liberia | 2006-2007 | 6,460 | 3,888 | 5,586 |
| Liberia | 2013 | 9,033 | not available | 3,980 |
| Madagascar | 2003-2004 | 7,539 | not available | 2,232 |
| Madagascar | 2008-2009 | 16,606 | not available | 8,323 |
| Mali | 2001 | 12,040 | not available | 2,977 |
| Mali | 2006 | 13,649 | 8,825 | not available |
| Mali | 2012-2013 | 9,861 | 3,120 | 4,231 |
| Mozambique | 2003-2004 | 12,393 | not available | 2,121 |
| Mozambique | 2011 | 12,822 | 5,824 | 3,900 |
| Niger | 2006 | 8,724 | not available | not available |
| Niger | 2012 | 10,431 | not available | 3,837 |
| Nigeria | 2003 | 7,229 | not available | 1,923 |
| Nigeria | 2008 | 31,128 | 18,760 | 14,346 |
| Nigeria | 2013 | 37,371 | 22,232 | 16,892 |
| Rwanda | 2000 | 8,846 | not available | 2,056 |
| Rwanda | 2005 | 9,394 | 2,296 | 3,991 |
| Rwanda | 2010 | 10,846 | 2,838 | 5,250 |
| Senegal | 2005 | 13,835 | not available | not available |
| Senegal | 2010-2011 | 15,290 | not available | 4,797 |
| Sierra Leone | 2008 | 6,755 | not available | 3,094 |
| Sierra Leone | 2013 | 15,530 | 4,300 | 6,994 |
| Total | | 438,926 | 118,641 | 172,095 |

Notes: we did not include Congo Brazzaville (2005 & 2011-2012) because the surveys contained only 3 out of 5 questions on acceptance of domestic violence and did not include the domestic violence module.

**Table A3: Summary Statistics of Childhood Exposure to Conflict**

| Variable: Exposure to conflict at age | Women Acceptance of domestic violence | | | Women Experience of domestic violence | | | Men Acceptance of domestic violence | | |
|---|---|---|---|---|---|---|---|---|---|
| | Obs. | Mean | Std. Dev. | Obs. | Mean | Std. Dev. | Obs. | Mean | Std. Dev. |
| 0 to 5 | 438926 | 0.244 | 0.430 | 118641 | 0.188 | 0.391 | 172095 | 0.254 | 0.435 |
| 6 to 10 | 438926 | 0.266 | 0.442 | 118641 | 0.175 | 0.380 | 172095 | 0.267 | 0.443 |
| 11 to 15 | 438926 | 0.265 | 0.442 | 118641 | 0.183 | 0.387 | 172095 | 0.267 | 0.443 |
| 16 to 20 | 438926 | 0.232 | 0.422 | 118641 | 0.186 | 0.389 | 172095 | 0.236 | 0.425 |
| Placebo (-5 to -1) | 438926 | 0.171 | 0.377 | 118641 | 0.162 | 0.368 | 172095 | 0.189 | 0.392 |

**Table A4: Correlation between Childhood Conflict Exposure and Outcomes**

| | Childhood Conflict Exposure during Age | | | |
|---|---|---|---|---|
| | 0 to 5 | 6 to 10 | 11 to 15 | 16 to 20 |
| **Women** (N=393,343) | | | | |
| N. of situations in which wife beating is justified | 0.0131 | 0.0422 | 0.0523 | 0.0549 |
| Wife beating justified in at least one situation | 0.012 | 0.0431 | 0.0557 | 0.0539 |
| Ever experienced any violence | 0.0355 | 0.0802 | 0.0996 | 0.0978 |
| **Men** (N=149,371) | | | | |
| N. of situations in which wife beating is justified | 0.0334 | 0.0357 | 0.0222 | 0.0025 |
| Wife beating justified in at least one situation | 0.0353 | 0.0422 | 0.0284 | 0.0061 |

Notes: Correlations for the samples used in Tables 3 and 6.

**Table A5: Differential Impact of Conflict Exposure by Conflict Intensity**

Panel A: exposure to war (at least 1,000 deaths)

| Respondents are | Women | | | Men | |
|---|---|---|---|---|---|
| Dependent variable: | N situations DV justified | DV justified in at least 1situation | Ever victim of DV | N situations DV justified | DV justified in at least 1 situation |
| Exposure to war at age 0-5 | 0.049* | 0.011 | 0.014 | -0.024 | -0.009 |
| | (0.027) | (0.007) | (0.009) | (0.024) | (0.009) |
| Exposure to war at age 6-10 | 0.044** | 0.005 | 0.028*** | 0.084*** | 0.032*** |
| | (0.020) | (0.005) | (0.010) | (0.022) | (0.008) |
| Exposure to war at age 11-15 | -0.001 | 0.001 | 0.004 | -0.017 | -0.006 |
| | (0.018) | (0.004) | (0.010) | (0.020) | (0.007) |
| Exposure to war at age 16-20 | 0.000 | 0.001 | 0.016 | -0.033 | -0.008 |
| | (0.019) | (0.004) | (0.015) | (0.024) | (0.008) |
| Observations | 438,926 | 438,926 | 118,641 | 172,095 | 172,095 |
| R-squared | 0.200 | 0.165 | 0.155 | 0.134 | 0.129 |
| F test p-value | 0.0717 | 0.493 | 0.0368 | 3.96e-06 | 4.74e-05 |

Panel B: exposure to minor armed conflict (between 25 and 999 deaths)

| Respondents are | Women | | | Men | |
|---|---|---|---|---|---|
| Dependent variable: | N situations DV justified | DV justified in at least 1situation | Ever victim of DV | N situations DV justified | DV justified in at least 1situation |
| Exposure to minor conflict at age 0-5 | 0.012 | 0.003 | 0.004 | 0.021 | 0.009** |
| | (0.017) | (0.004) | (0.006) | (0.014) | (0.004) |
| Exposure to minor conflict at age 6-10 | 0.046*** | 0.011*** | 0.011 | 0.040** | 0.014*** |
| | (0.016) | (0.004) | (0.007) | (0.019) | (0.005) |
| Exposure to minor conflict at age 11-15 | 0.002 | 0.003 | 0.008 | 0.001 | 0.005 |
| | (0.014) | (0.004) | (0.006) | (0.015) | (0.005) |
| Exposure to minor conflict at age 16-20 | 0.005 | 0.004 | -0.004 | -0.032* | -0.004 |
| | (0.015) | (0.004) | (0.007) | (0.018) | (0.006) |
| Observations | 438,926 | 438,926 | 118,641 | 172,095 | 172,095 |
| R-squared | 0.200 | 0.165 | 0.155 | 0.134 | 0.129 |
| F test p-value | 0.0209 | 0.0958 | 0.342 | 0.00729 | 0.0214 |

| Test (War at age 6-10) = (Minor Conflict at age 6-10) | | | | | |
|---|---|---|---|---|---|
| Chi2 | 0.02 | 0.87 | 1.61 | 2.94 | 3.91 |
| P-value | 0.8999 | 0.3514 | 0.2051 | 0.0863 | 0.0480 |

Notes: See notes to Tables 3, 5 and 6.

**Table A6 Placebo Test: women**

| Dependent variables: | N situations DV justified (women) | DV justified In at least One situation (women) | Ever victim of DV (women) | N situations DV justified (men) | DV justified In at least One situation (men) | Ever victim of DV (women, matched) |
|---|---|---|---|---|---|---|
| Respondent's exposure to conflict | (1) | (2) | (3) | (4) | (5) | (6) |
| 1-5 yrs before birth | 0.016 | 0.006 | 0.009 | 0.005 | 0.001 | -0.002 |
| | (0.017) | (0.005) | (0.007) | (0.017) | (0.006) | (0.015) |
| at age 0-5 | 0.018 | 0.005 | 0.009 | 0.006 | 0.006 | 0.010 |
| | (0.017) | (0.005) | (0.006) | (0.016) | (0.005) | (0.015) |
| at age 6-10 | 0.048*** | 0.011*** | 0.016** | 0.032* | 0.015*** | 0.011 |
| | (0.014) | (0.004) | (0.006) | (0.017) | (0.005) | (0.014) |
| at age 11-15 | -0.003 | 0.003 | 0.011 | -0.010 | 0.002 | 0.022 |
| | (0.013) | (0.003) | (0.007) | (0.016) | (0.005) | (0.017) |
| at age 16-20 | 0.005 | 0.003 | -0.000 | -0.042** | -0.007 | 0.009 |
| | (0.014) | (0.004) | (0.007) | (0.017) | (0.006) | (0.012) |
| Partner's exposure to conflict | | | | | | |
| 1-5 yrs before birth | | | | | | -0.009 |
| | | | | | | (0.010) |
| at age 0-5 | | | | | | 0.018* |
| | | | | | | (0.010) |
| at age 6-10 | | | | | | -0.003 |
| | | | | | | (0.012) |
| at age 11-15 | | | | | | -0.013 |
| | | | | | | (0.012) |
| at age 16-20 | | | | | | 0.009 |
| | | | | | | (0.014) |
| Observations | 438,926 | 438,926 | 118,641 | 172,095 | 172,095 | 31,168 |
| R-squared | 0.200 | 0.165 | 0.155 | 0.134 | 0.129 | 0.154 |

Notes: See notes to Tables 3, 5, 6 and 10.

**Table A7 Availability of Information on Years Lived in the Current Place of Residence**

| Country | Year | Years lived in place of residence | |
|---------|------|------------------|-------|
| | | Women | Men |
| Burkina Faso | 2003 | available | available |
| Burkina Faso | 2010 | missing | missing |
| Burundi | 2010 | missing | missing |
| Cameroon | 2004 | available | available |
| Cameroon | 2011 | missing | missing |
| Comoros | 2012 | missing | missing |
| Congo Democratic Republic | 2007 | available | available |
| Congo Democratic Republic | 2013-2014 | missing | missing |
| Cote d'Ivoire | 2011-2012 | missing | missing |
| Ethiopia | 2011 | missing | missing |
| Gabon | 2012 | missing | missing |
| Ghana | 2003 | available | available |
| Ghana | 2008 | available | available |
| Kenya | 2003 | available | available |
| Kenya | 2008-2009 | available | available |
| Lesotho | 2004-2005 | available | available |
| Lesotho | 2009-2010 | available | available |
| Liberia | 2006-2007 | available | available |
| Liberia | 2013 | missing | missing |
| Madagascar | 2003-2004 | available | available |
| Madagascar | 2008-2009 | available | available |
| Mali | 2001 | available | available |
| Mali | 2006 | available | available |
| Mali | 2012-2013 | missing | missing |
| Mozambique | 2003-2004 | available | available |
| Mozambique | 2011 | missing | missing |
| Niger | 2006 | available | available |
| Niger | 2012 | missing | missing |
| Nigeria | 2003 | available | available |
| Nigeria | 2008 | available | available |
| Nigeria | 2013 | missing | missing |
| Rwanda | 2000 | available | available |
| Rwanda | 2005 | available | available |
| Rwanda | 2010 | missing | missing |
| Senegal | 2005 | available | available |
| Senegal | 2010-2011 | missing | missing |
| Sierra Leone | 2008 | available | available |
| Sierra Leone | 2013 | missing | missing |

**Table A8 Control Group Includes DHS Surveys from Countries with No Conflict 1946-2006**

| Respondents are | Women | | | Men | |
|---|---|---|---|---|---|
| Dependent variable: | N situations DV justified | DV justified in at least 1situation | Ever victim of DV | N situations DV justified | DV justified in at least 1situation |
| | | | | | |
| Exposure to conflict at age 0-5 | 0.014 | 0.003 | 0.007 | 0.002 | 0.004 |
| | (0.016) | (0.004) | (0.005) | (0.015) | (0.005) |
| Exposure to conflict at age 6-10 | 0.038*** | 0.008** | 0.014** | 0.028* | 0.013*** |
| | (0.014) | (0.004) | (0.006) | (0.017) | (0.005) |
| Exposure to conflict at age 11-15 | -0.015 | -0.000 | 0.008 | -0.014 | 0.001 |
| | (0.012) | (0.003) | (0.006) | (0.016) | (0.005) |
| Exposure to conflict at age 16-20 | -0.007 | -0.000 | -0.004 | -0.040** | -0.006 |
| | (0.015) | (0.004) | (0.008) | (0.017) | (0.006) |
| | | | | | |
| Observations | 637,448 | 637,448 | 155,568 | 246,206 | 246,206 |
| R-squared | 0.235 | 0.203 | 0.136 | 0.153 | 0.145 |
| F test p-value | 0.00836 | 0.121 | 0.0539 | 0.00723 | 0.0326 |

Notes: The additional surveys included in the sample are: Benin (2001, 2006 and 2011/12), Guinea (2005 and 2012), Malawi (2000, 2004/05 and 2010), Namibia (2000, 2006/07 and 2013), Sao Tome (2008/09), Swaziland (2006/07), Tanzania (2004/05 and 2009/10), Uganda (2000/01, 2006 and 2011), Zambia (2001/02 and 2007), Zimbabwe (1999, 2005-06 and 2010-11).