Political Violence, Domestic Violence, and Children's Health: The Case of Pakistan

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Abstract

I estimate the impact of political violence (i.e. terrorism) and domestic violence (i.e. intimate partner violence) on child health outcomes. Given that there is a strand of literature showing that armed conflicts, and thus, political violence, increase the likelihood of violence within a household, I test for this possible link as well as the combined effect of these two types of violence on children's height. I find a separate negative effect of both violence outcomes on children's height, but an insignificant combined effect of these two types of violence. Thus, mothers experiencing violence through the partner and violence in their environment through terrorism, have children not significantly shorter than others.

Keywords: Armed Conflicts, Domestic Violence, Children's Health

JEL-Classification: I12, O12

1. Introduction

Armed conflicts have long-lasting impacts on health outcomes, especially child health outcomes during and after pregnancy but also in the first five years of their young lives. Armed conflicts typically reduce access to health infrastructures and worsen the living situation of the household. However, even after controlling for these conditions (Mansour and Reese 2012, Parlow 2013), armed conflicts have a significant effect on child (and maternal) health outcomes and this effect is usually explained by stress experienced during and after pregnancy. Though, the actual source of that stress is not clear, e.g. it is usually attributed to the fear of experiencing conflict violence (Camacho 2008, Parlow 2013). What if this source lies within the household, e.g. due to domestic violence (i.e. intimated partner violence) experienced during pregnancy and beyond.

There is a large body of literature, mainly from the medical field, showing that domestic violence experienced during pregnancy has adverse effects on pregnancy related health outcomes (e.g. Janssen et al. 2003, Koski et al. 2011, Athusen et al. 2015). However, a few working papers can be found in the development economics literature (Agüero 2013, Rawlings and Siddique 2014). These adverse effects include abortion, still-births, complications at birth in general but also low birth weight (Mavalankar, Gray, and Trivedi 1992, Valladares et al. 2002, Aizer 2011) - a known indicator for long-term health outcomes of the newly born. Furthermore, mothers who suffer from domestic violence are less likely to go to prenatal check ups as well as neonatal check ups. Even when the children get older, these mothers are often less capable to presume their duties. Thus, even if the child itself is not abused, by having an abused mother, their physical development can be impaired (e.g. height), additionally to their emotional development (Holt, Buckley and Whelan 2008).

In conjunction, there is a growing body of literature showing a relationship between armed conflicts and the probability of experiencing domestic violence at home (La Mattina 2017). Men are typically less employed in areas of armed conflict or experience more stress in general. They can be harassed by officials or drawn into possible hostile actions by groups being involved in fighting. These men may carry this type of stress home and could be more likely to beat or humiliate their wives.

Here, I am using Pakistan as a case study to link these two bodies of literature to possible explain the black box stress. Pakistan is a country experiencing armed conflict related violence as what is defined as political violence, e.g. multiple political and terrorist groups opposed the

government and fight the government on a daily basis.

My analysis is based on the 2012 / 13 Demographic and Health Survey for Pakistan (PDHS) containing for the first time a module on domestic violence within the household. In combining the information on the location of the household with data on terrorism in the provinces, I can identify households more affected by external violence than others. Thus, I am able to estimate a causal effect of armed conflict-related violence on child health outcomes in a first step. In a second step I estimate the effect of external violence on the likelihood of domestic violence and finally combine these two types of violence to test for an effect on child health outcomes. I find, however, that although external violence reduces child health, as well as increases the likelihood of certain types of domestic violence (e.g. stronger forms), the combined effect has no significant effect on child health for children living in these households. This is surprising, given that these two channels for themselves reduces child health. Yet, for the household experiencing this double burden on their livelihoods, certain coping mechanism could be in place, reducing the negative effect on child health. For instance, Nobles, Frankenberg and Thomas (2015) find that communities experiencing negative weather shocks, assists each other to overcome the daily obstacles. Bellows and Miquel (2009) and Voors et al. (2012) find that individuals are more altruistic and involved in their community after an armed conflict ended. Given, that women are more likely to experience domestic violence in provinces experiencing more external violence, this could bond the households together in finding mechanisms to assist each other.

The paper is organized as follows. In section 2 I discuss the related literature and analyze the possible link between types of violence on child health outcomes further. In section 3 I introduce the data and describe my empirical model. The discussion of my results follows in section 4, while in section 5 I perform a series of robustness checks. The paper concludes in section 5.

2. Related Work

2.1. Health shocks early in life

There is a large body of literature showing that health shocks early in life have long-lasting adverse effects on health outcomes throughout the life of an individual (Barker 1998, Case 2005, Strauss and Thomas 2008, Maccini and Yang 2009, Almond and Currie 2011). These individuals are typically sicker on the average, less satisfied with their health and even die earlier, and thus, have lower labor market outcomes and higher health related expenses over their life cycle. These health shocks can include recessions (Cutler et al. 2002), famines (Stein et al. 1975, Almond et al. 2008),

droughts (Akresh and Verwimp 2006), pandemics (Almond 2006), wildfires (Jayachandran 2008), and many more. They can have direct health effects, like through reduced air quality during a wild fire but also more indirectly through reduced access to other resources needed. Furthermore, these external shocks cause stress. Armed conflicts like wars, civil wars, and weaker forms of violence typically worsen the living situation of the households by reducing access to health services, food, and cause stress for the members of the households. These indirect effects of armed conflict, especially on child health outcomes, have been in focus of research in development economics for more than ten years now.

These children usually have lower birth weight or are smaller at birth when the health shock occurs during pregnancy (Camacho 2008, Mansour and Rees 2012) and affects the development of the fetus. During the first five years of the development of the children their health is measured by height, weight or a combination of these two. Thus, if children experience an adverse health shock, they tend to be smaller for their age (Bundervoet, Verwimp and Akresh 2009, Guerrero-Serdan 2009, Akresh and Verwimp 2011, Akresh, Lucchetti and Thirumurthy 2012, Galdo 2013).

However, even after controlling for living conditions and access to health services, a negative effect of the conflict experience remains. This is typically explained by stress experienced during pregnancy, e.g. through changing hormones and impaired fetal development, or by stress experienced during the first few years of the child's life (Mansour and Rees 2012, Parlow 2013). Yet, the actual source of that stress is not clear. Is it the fear of losing your life, the daily struggle with the worsened living conditions or is the source actually within the household? One potential source within the household and having direct consequences on maternal health and child's health, is domestic violence experienced.

Mothers experiencing domestic violence during pregnancy are more likely to have birth complications, still-births or psychological problems (Mavalankar, Gray, and Trivedi 1992, Valladares et al. 2002, Holt, Kishor and Johnson 2006, Buckley and Whelan 2008, Aizer 2011). Furthermore, besides having birth defects, these babies also have lower birth weight. However, the negative consequences of domestic abuse continue to impair the development of the child during the first years of life, directly through reduced parental ability of the mothers but also indirectly, by watching their mothers being abused, and thus, having emotional scars, lasting their entire life. These children are also more likely to be abused as well (see Holt, Buckley and Whelan 2008 for an excellent overview). Besides having emotional problems, these children have reduced health measured by more objective

measures like lower BMIs or reduced height, a long-term indicator for health outcomes later in life (Agüero 2013, Rawlings and Siddique 2014, Nuhu 2016).

These papers use different DHS-surveys and find that not all forms of domestic violence have the same effect on health outcomes, e.g. stronger forms like physical violence have a larger impact than emotional abuse. They also find that the health effects are more pronounced for lower income households as well as mothers with less education, a known finding from developed countries (Aizer 2011).

Given that height is an established measure for long-term health outcomes, and that both armed conflict and domestic violence can reduces this particular health outcome, I want to link these two violence outcomes to test their impact on child health.

2.2. Linking domestic violence and armed conflict

It has been estimated by the World Health Organization (WHO) that one out of three women experience domestic violence (i.e. intimate partner violence) in their life time (WHO 2005, 2013). Domestic violence can range from sexual, psychological to physical violence (Ali et al. 2015). This is an issue not just in developing countries and poses a public health risk including direct health related costs as well as indirect costs, at the societal level. Yet, the prevalence rates of domestic violence are significantly higher in developing countries.[1]

The reasons for domestic violence can be manifold, and there as such, are economic models explaining domestic violence (DV) within the household context (Tauchen, Witte, and Long 1991, Tauchen and Witte 1995). DV can be seen as instrument to exert power to induce or change behavior of the victim (typically women) or sometimes even just an instrument to increases utility by deriving pleasure from these actions. Still, DV changes the distribution of wealth within a household towards the male perpetrator. In more modern settings DV is seen within bargaining models where the "normal" bargaining fails and violence is used as mean to maintain the own position within the household.

Risk factors at the individual level can include low self esteem and being exposed to violence during childhood can be reasons to be violent against someone's partner (Tauchen and Witte 1991). Further reasons are the usual suspects, low levels of education, unemployment (usually the male)

[1] According to the WHO (2013) in high-income countries ca. 23 percent of the women experience domestic violence in their lifetime while in a low-income region like Southeast-Asia ca. 37 percent of the women experience domestic violence in their life. On a more regular basis, numbers vary from 2 percent of the women in the US experience DV regularly (Aizer 2011) while in Rwanda 32 percent do (La Mattina 2017).

alcoholism and drug abuse and other channels inducing stress at the individual level (Averett and Wang 2016). Risk factors at the household level typically include low income (Tauchen and Witte 1991, WHO 2005, Aizer 2011).[2] While at the societal level, traditional gender roles and expectations play in developing countries a major role in committing domestic violence (WHO 2005, Finnoff 2012). Gender expectations are the main reason for the high rates of domestic violence, and violence against women in general, in patriarchal societies like the one in Pakistan (Aurant Foundation 2014, Ali et al. 2015).

DV also has been linked to armed conflicts (WHO 2005, Calderon, Gafaro and Ibanez 2011, Finnoff 2012, Noe and Rieckmann 2013, Guiterrez and Gallegos 2016, Mattina 2017) given these create stressful environments (e.g. through forced displacement, less access to resources), weaken labor market conditions and increase the risk, especially for men, to be involved into these conflicts.[3] Yet, La Mattina (2017) is the first who thoroughly analyzes possible causal links between armed conflict and domestic violence.[4] Finnoff (2012) however focuses mainly on female employment and domestic violence. Her focus is not explicitly on the Rwandian genocide but in a robustness check she controls for conflict intensity. Calderon, Gafaro and Ibanez (2011) analyze the consequences of forced displacement caused by the Colombian conflict while Noe and Rieckmann (2013) use the Colombian case to link conflict deaths to domestic violence at the household level. Finally, in a different approach, Guiterrez and de Piura (2016) estimated the effect of conflict experience in Peru during childhood on the probability of experiencing domestic violence during adulthood, e.g. roughly 20 years later.

La Mattina (2017) uses the 1994 genocide in Rwanda to identify households more affected by the genocide than others in 2005 and 2011 DHS data. With this variation in exposure to the genocide, she is able to estimate a causal effect of the likelihood of women to experience domestic. Her data set is very similar to the one I use, a standard DHS-data set including a module on different types of domestic violence and their rough frequency. She finds that women who married after the end of the genocide and living in high intensity conflict areas are more likely to experience DV. Why do not leave these married women the household? La Mattina explains this by a change in sex ratios in favor of the surviving men. Thus, male may have a higher bargaining power within the

[2]However, it should be noted, although that domestic violence is more common in low income households, it can be observed over all income groups (Kishor and Johnson 2006).

[3]While this is a more indirect link, it has been known that for instance soldiers actively involved in fighting take these experiences home (e.g. through PTSD) and are more likely to be violent at home (Cesur and Sabia 2016).

[4]Besides Finnoff (2012) the aforementioned studies are still at the working paper stage.

household because women typically have no (outside) option to leave the dysfunctional marriage. The effect of the genocide is therefore long-lasting. The effect of having no outside option can be even stronger in patriarchal societies like Pakistan, where women who are leaving their men are ousted up to the point, that there are even killed for their actions (e.g. honor killings)[5].

3. Data, Descriptive Statistics and Empirical Strategy

3.1. Data and Descriptive Statistics

To estimate the impact of political violence and domestic violence and child health outcomes, I utilize the Pakistan 2012/13 Demographic and Health Survey (PDHS). The PDHS is a nationally representative household survey and contains a module on domestic violence. In total 13,588 ever-married women of age 15 to 49 were interviewed belonging to 3,134 households. The PHDS contains standard demographic questions, a rich set of health related questions for mothers and their children as well as a complete birth history of children born to mothers. For the first time at the national level, this survey includes a module specific to the experience of domestic violence. Here, a smaller sub sample of 3,687 women was randomly chosen and carefully interviewed (e.g. without the husband being present). One third of these women experienced DV in their life and one fifth of the women experience DV on a more regular basis. Typically, the own husband is the perpetrator. These high levels of DV are common for Pakistan and are found for smaller samples before (see Niaz, Hassan, and Tariq (2017) and Ali et al. (2017) for an overview).[6] Women are typically considered to be submissive to men and their role is often limited to that of a child bearer (Ali et al. 2017). Although, there are many NGOs, like the Aurat Foundation, helping these women and trying to raise awareness of domestic violence as an issue for the society as a whole, laws have been protecting men for many years. Bills protecting the rights of women (and their children) specifically were discussed in 2009 and 2012 but have not passed at the national level.[7]

The DV questions in the PDHS are based on the established Conflict Tactics Scale (Straus 1979). These contain questions of the type of hostile actions (verbal, physical), their frequency but also questions if the hostile actions are warranted. A question from the PHDS reads like this: "Did your husband ever say or do something to harm you?". Answers range from ever, often, sometimes

[5]For instance, in 2014 there were 713 reported honor killings in Pakistan. This number has been slowly increasing since 2008 (Aurat Foundation 2014).

[6]Some studies report even rates up to 80 percent (Niaz, Hassan, and Tariq (2017)).

[7]However, laws protecting women can be found at the state level. The capital district Islamabad passed a similar bill in 2012 and the Punjab province in 2016, strengthening the rights of women.

and not in the last 12 months. Questions of the actual type of action (e.g. push, slap, punch and so on) are similar. The extent and especially the type of actions vary between women, e.g. some women are humiliated but never beaten and these rates very across regions. Thus, this regional variation should be accounted for in the empirical analysis following (see Figure 1 and Table 1). The province Punjab has higher rates of domestic violence than other provinces. Furthermore, women do not experience the different types of DV at the same level, e.g. women who are beaten more frequently are not necessarily humiliated in public. Thus, DV is a more private matter at home.

[Table 1 and Figure 1 about here]

Additionally, women experiencing domestic violence have lower levels of education, live in households with lower levels of incomes as well as in more rural areas. They also have more children and are more pregnant on the average. Surprisingly, they are also younger on the average and likely less experienced in handling their own position within the household (Table 2).

[Table 2 about here]

Violence in Pakistan is typically described as political violence, e.g. different groups expose the government in organizing riots, abducting officials but also committing terror attacks. Yet, the picture in Pakistan is more diverse and violence has different roots, from different political organizations opposing each other or the government, groups opposing minority religions (e.g. sectarian violence) but also terror organizations like Alquaida fighting a Jihad not just in Pakistan (e.g. in India, Afghanistan) are present (Ismail and Amjad 2014, de Mesquita et al. 2015). For the purpose of this study, I am interested in the extent of violence at the province level and thus affecting the daily lives of households living in these provinces. Thus, I count the incidences using various sources to identify high violence intense and low violence intense provinces. I am aware that identifying districts for example would give a more precise picture, but I have just information on the location of the household at the province level.[8]

[8]Although the PHDS offers a few hundred district codes, the documentation contains no information to identify these districts. Furthermore, most data on political violence are collected at the province level.

My primary source are the incidence data of the South Asia Terrorism Portal (SATP 2017). Because of different definitions and sources of the incidences, I use ACLED and BFSR data to double check the identification of provinces affected more by violence than others (ACLED 2017, de Mesquita et al. 2015). These databases yet have in common, that most of the incidences are from news media but coding rules and the level of detail differ.[9] However, SATP is the only one offering data on the years 2012 and 2013, e.g. the year the PHDS was collected, while the other two data sources include data up to 2011 which could be used to describe long-run trends of violence in Pakistan. SATP includes data on civilians, militants and security forces killed. I choose civilians killed as my identifier, given this should affect expectations and experience of violence in the daily lives of the households more than the numbers of militants killed or official security forces (Rehman and Vanin 2017).

In Table 3 I present the data and Figure 2 shows a map of the violence against civilians. The provinces mostly affected by above average absolute numbers of civilians killed are Sindh, Khyber, Balochistan while Sindh could be classified as very high, given most of the political violence is concentrated in this province.

[Table 3 and Figure 2 about here]

3.2. Empirical Strategy

My estimation strategy involves two steps. First I estimate the effect of armed conflict and domestic violence on child health outcomes separately. In a second step I estimate a combined effect including models using the interaction between armed conflict and domestic violence but also armed conflict as a possible instrument for domestic violence. To do so, I test separately if armed conflict increase domestic violence or not. Only if there is a strong link, it would be possible to use an instrumental variable estimation.

To measure children's health I use current height. It would be possible to use other health outcomes and directly focusing around the time of birth, but using domestic violence limits the analysis to the last 12 months and would create small samples. I estimate a standard reduced form health production function of the following form:

[9]For instance, ACLED offers GPS data while SATP offers less detailed location data and summarizes them often at the province level.

$$H_{ijt} = \alpha + \gamma \text{conflict}_{ij} + \delta \text{DV}_{ij} + \beta_1 \text{Child}_{ijt} + \beta_2 \text{mother}_{ijt} + \beta_3 \text{SES}_{ijt} + \rho_j + \theta_t + \epsilon_{ijt} \qquad (1)$$

H_{ijt} is an indicator for children's height and transformed to height for age z-score (HAZ) using the WHO module for statistical programs. H_{ijt} is therefore the HAZ score of child i living in region j and born in year t.[10] The average local treatment effect of experiencing armed conflict is γ, where $conflict$ is a binary variable indicating children born and living in a more conflict-affected region. Different types of domestic violence are measured by the variable DV. These include being humiliated, insulted, threatened or beaten by the husband. Because I am also interested in a causal effect of armed conflict (i.e. political violence), I estimate the model as a linear probability model (LPM). An LPM estimation allows the interpretation of γ as an average local treatment effect.

The vector *child* includes information on the child itself, e.g. the age and the sex. Information on the mother like her age, education and height are summarized in the vector *mother*. Household characteristics like wealth can be found in the vector SES. I use birth year (θ_t) and region fixed effects (ρ_j) to account for variations across regions and across birth cohorts . Other fixed effects could even include mother fixed effects. Standard robust errors are used ϵ_{ijt}. In a different set of estimations, I cluster the standard errors at the community level to use information on possible linkages at the community level, e.g. if households (and their mothers) develop coping mechanism to deal with the hardships at hand.

4. Results

4.1. The effect of armed conflict on children's height

In Table 5 I present the results of the effect of political violence on HAZ scores of children between the age 0 to 59 months. For comparison purposes, I show baseline models not including the conflict variable.

The effect of political violence, a form of armed conflict, on children's height is negative. This has also been found in similar work. The reduction in height is similar in magnitude compared to other weaker forms of armed conflict (Parlow 2013). Children exposed to armed conflict are up to 1.4 standard deviations (ca. 2.8cm) shorter than children who are not (or less) exposed. The

[10]The dependent variable is a standardized height score which allows the interpretation of the violence coefficient directly as a reduction in standard deviations from the reference population. A one standard deviation difference is approximately 2 cm.

inclusion of fixed effects shows that the effect is higher in magnitude.

Other control variables have the assumed effect on children's height. Taller mothers have taller children, yet, the effect is not as pronounced as in the literature. However, education has a larger effect on the height of children. Educated mothers typically raise their children healthier and can cope more effectively with the daily hardships. In Pakistan, where women barely have education at all, having some education (e.g. at the primary level) can make a significant difference in raising children.[11] Thus, the positive effect of wealth on children's height does come to no surprise as well. Wealthier households are typically better educated but also have access to more resources. However, the effect on health outcomes is typically not the same across wealth quintiles. I leave the effect of being in different wealth quintiles for a robustness check.

[Table 5 about here]

4.2. The effect of domestic violence on children's height

I have use four different measures of domestic violence against the mother: being humiliated, insulted, threatened and actually beaten at home (see Table 6). I expect different effects on children's height, given these domestic violence forms differ in their severity. I do find that mothers who are more frequently beaten have children with worse height outcomes. These children grow up in an environment adverse to their own development and mothers are likely impaired in fulfilling their duties towards the child. Additionally, children can also suffer by watching their mother being abused.

These children are ca. 0.5 cm shorter compared to children who have mothers who are not beaten frequently. Surprisingly, although only 17 percent of the women who are beaten answer that they are threatened by their husbands, being threatened has a similar impact on child's height. This could be due to the fear of eventually being beaten, e.g. if the husbands threatens to beat his wife an action is likely to follow. It is also possible that that women may underreport the level of aggression of the husband. It is difficult to imagine that husbands who frequently beat their women do not threaten them with a similar frequency. Especially, given that being insulted and being humiliated overlap significantly more with each other.[12] Yet, these weaker forms of domestic

[11] In my sample almost 50 percent of the women have no education. These women can also not read and write.

[12] The correlation between these two outcomes is higher than between being beaten and being threatened (see

violence outcomes have no significant impact on the height of children.

[Table 6 and Table 7 about here]

4.3. The effect of both violence measures on children's height

Above I found a negative effect of political violence and different types of domestic violence on children's height. Here I test if including both measures affects the individual results and if there is an omitted variable bias by only using one of each in previous work or not.

La Mattina (2017) shows in a detailed discussion that domestic violence outcomes in Rwanda are affected by the armed conflict experienced and this even with a long lasting impact. It could be assumed, that more current armed conflict outcomes should affect current domestic violence outcomes. In Table 8 I show results for my above models including both measures of violence. I find similar results as above for models including just one of these outcomes. Using a Wald test to compare the coefficients shows that they are not significantly different from each other compared to the above models. This could mean that an omitted variables bias does not exists and that the experience of armed conflict and domestic violence are rather weakly related with each other and actually two different sources of stress. I come back to this question later, when I explore the effect of armed conflict on domestic violence itself further, e.g. in taking up the discussion started by La Mattina.

[Table 8 about here]

Another strategy to test the effect of political violence and domestic violence on children's height is to identify households experiencing both adverse outcomes at once. Thus, I include an interaction term in my estimation (see Table 9). For households experiencing these two outcomes, I find no significant effect on children's height. This is cumbersome at first, because both violence measures for themselves can have a significant effect and cause children to be shorter. However, it is possible that if a household experiences these two outcomes of violence at once, women find coping mechanisms to deal with these negative shocks to their daily lives. One strategy is to seek help from other women living in the same community. It has been found that communities experiencing adverse

Table 7)

external outcomes in their lives, find together and help each other to cope with the consequences of a Tsunami or the experience of armed conflict (Nobles, Frankenberg and Thomas (2015), Voors et al. (2012), and Bellows and Miquel (2009)).

[Table 9 about here]

4.4. Exploring the effect of armed conflict on domestic violence

In this section I explore the possible relationship between domestic violence and the armed conflict in Pakistan further. La Mattina (2017) finds for Rwanda that the experience of armed conflict has a long-lasting impact on some domestic violence outcomes, e.g. the stronger forms like being beaten or in some cases being threatened. Here, I use armed conflict outcomes in the last 12 months to explain domestic violence during the same time period. While La Mattina argues that the experience of armed conflict alters the perception towards violence more permanently, I argue that armed conflict is another source of stress experienced and thus increases the likelihood of domestic violence. Basically, I want to find an explanation why in my above models armed conflict and domestic violence have separate effects on children's health and may not be used interchangeably.

To test the effect of political violence on domestic violence, I use a standard linear probability estimation of the following form:[13]

$$DV_{ij} = \alpha + \gamma \text{conflict}_j + \beta women_i + \theta husband_i + \delta SES_i + \epsilon_{ij} \tag{2}$$

DV_i is a variable indicating the domestic violence experience of woman i living in region j in the last 12 months. The variable $conflict$ is the armed conflict outcome living in region j. Standard information on the wife and on the husband can be found in the variable *women* and *husband*. Household characteristics are included in the variable SES.

The results can be found in Table 10. I find that political violence has a weak effect on domestic violence outcomes. Furthermore, the experience of armed conflict does not necessarily has to increase the likelihood of domestic violence within a household. Only for being beaten I find that the risk increases by roughly 2 percent. This is not a large effect, especially compared to reasons for domestic violence which can be found within the household, e.g. alcoholism (up to

[13]It is also possible to use a probit (or logit) model. The marginal effects of the Probit models are virtually the same to the LPM results reported here.

20 percent). Alcoholism, employment status and similar variables are the usual suspects why a husband is violent towards is wife. Thus, this relative low correlation between these two violence outcomes can explain why in my above health models, the inclusion of these two is not a problem and an omitted variable bias is not present. Moreover, the weak relationship between the conflict experience and domestic violence outcomes is surprising.[14] Especially, given that households have been experiencing political violence in Pakistan for a long time. If one time shocks, like the one in Rwanda, alter perceptions permanently, someone would expect a similar result for a more frequent experience. Thus, I see the armed conflict experience as another source of stress and the reasons for domestic violence are different ones.

[Table 10 about here]

Above I showed that including both measures of violence does not change the results significantly. Thus, these two are very likely to be independent sources of stress experienced. Yet, imagine someone would use an empirical model only including the domestic violence measure. It could be argued omitting an armed conflict measure could bias the results, because armed conflict affects children's height and could affect domestic violence outcomes. I already showed that in my case this may not be the case. A more convincing strategy is, assuming OVB exists and using an instrumental variable approach to overcome this issue. I instrument domestic violence by alcoholism of the father and test for endogeneity. If endogeneity exists it could be because of omitting a relevant variable. Reverse causality (or simultaneity) may also be reason but it is very unlikely in my case where I explain height outcomes of children by domestic violence experienced by their mothers. I report first and second stage results of an IV regression for the relevant variables in Table 11. Alcoholism is indeed a valid instrument for domestic violence but in none of the models, endogeneity is present. I cannot reject the hypothesis of a Wu-Hausmann Test for endogeneity. Thus, my above height models are at least not suffering by omitted variable bias and it is safe to use political violence and domestic violence in the same empirical model or even to exclude domestic violence.

[Table 11 about here]

[14] Another hint may already be the weak correlation between the conflict experience and domestic violence outcomes, e.g. they range from -0.03 for being threatened to 0.04 for being beaten in the last 12 months.

5. Sensitivity analyses

In this section I test if my results remain relatively robust to alternative specifications. These can include testing the above for different wealth quintiles, different fixed effects or accounting for possible community effects in using clustered standard errors.

Households in various wealth quintiles are likely to cope differently with negative experiences in their life, like an armed conflict. Furthermore, Kishor and Johnson (2006) show that the experience of domestic violence is not necessarily observed only for poor households but can be found for all levels of wealth (and even education). In Table 12 I test the role of different wealth levels. I only report the estimates on the armed conflict and domestic violence variable. I find that the experience of political violence varies across wealth with surprisingly a U-shaped distribution, e.g. the poorest suffer less than the households in the middle distribution. It is possible that for the poorest who lack many resources, another worsening of the living situation is easier to handle than for households who have access to some resources. These resources often include basic items like access to a toilet or clean water. Yet, as someone would expect, the wealthiest households and their children are less affected by the armed conflict than the poorer also experiencing the conflict. The estimates for domestic violence show that the results before are mainly driven by households at the very low end of the wealth distribution. The frequency of beating, for instance, is also higher in poorer households.

[Table 12 about here]

My results show that older children are shorter than younger children. This could be because of negative events which took place around the time of birth (or even pregnancy). This can include indeed the experience of armed conflict of the mother during her pregnancy. Yet, I have no exact information of the length of pregnancy. To overcome this issue, I use birth year by region fixed effects. Before I used them separately. I find stronger results for the conflict variable (Table 13). However, including these effects also introduces high levels of multicollinearity in my models and affecting the standard errors of my conflict variable. Typically, households do not move often and live today in the same provinces at the time of the pregnancy. The conflict variable would capture the same information as birth year region fixed effects, especially when conflict levels are very sim-

ilar years ago which I showed above. In this case using violence measure at the district level would make these estimates surely more precise but the PDHS does not offer this type of information.[15]

[Table 13 about here]

Above I found an insignificant combined effect of political violence and domestic violence on children's height and argued that this could be because of strong community ties. These ties could also be a reason why not all domestic violence measures show a significant effect on children's health. It is possible to account for ties in clustering the standard errors at the community level. There are 500 of these clusters. In Table 14 results for my main models can be found. The standard errors are more precise as before, e.g. there might be some clustering and accounting for this, can increase the efficiency of the results. In addition, I cannot measure community ties directly, accounting for these indirectly, improves the results and adds another explanation for the results found above.

[Table 14 about here]

It is still feasible to perform more tests. For instance, here I used the sample of women experiencing domestic violence. The full sample would contain more households, and thus, more children. However, the effect of armed conflict itself is already similar to other studies only focusing on the negative consequences of armed conflict. I do not expect significantly different results from doing so. Furthermore, I could use other health related outcomes like small at birth or outcomes directly related to the pregnancy (still-births, prematurely born). I would need to change the identification of households more affected by political violence, because the events experienced during pregnancy (and time of birth) matter more in this case. Yet, I cannot go back further in the experience of domestic violence as the last 12 months. The information on ever experiencing domestic violence, may show, that DV is experienced more frequently, but would make to strong assumptions on DV outcomes around the time of birth if birth (and pregnancy) took place before 2012. Thus, if I use the last 12 months I only have small samples of children who are still very young

[15]The PHDS offers district codes but information on the exact district are not available. If GPS data would be available this would be another strategy to overcome this issues. In this case ACLED conflict data could be used to identify households more affected by political violence. But then the issue of small samples would be created because only a fraction of women were interviewed for the domestic violence module.

and generalizing the results would be more difficult. Finally, I could use even more information of the domestic violence module, e.g. like being kicked, slapped and many more. Though, I already used the variables being answered by most of the women. Using more specific answers would also reduce the sample size and make estimates likely less valid.

6. Conclusion

In this paper I estimate the impact of armed conflict and domestic violence on children's height in Pakistan. Pakistan is a country experiencing armed conflict in form of political violence for a long time. Armed conflicts create a burden on households experiencing the conflict in their daily lives. A similar burden is the experience of domestic violence. These two types of negative experiences typically reduce children's health outcomes, but yet, most studies focus on one of these outcomes, but not if they are experienced at the same time.

Here, I estimate the effect of these two sources of stress and find they have negative impacts on children's height for household experiencing either one of them. However, and unexpected, I find that household suffering from armed conflict but also domestic violence do not have children significantly shorter. This can be because of possible ties at the community level where mothers support each other.

Furthermore, I find that domestic violence is not significantly affected by the experience of political violence. A relative new strand of literature (e.g. La Mattina 2017) argues that external armed conflicts increase the likelihood of domestic violence within a household. Surprisingly, by the experience of armed conflict in the past. Here, I have current violence outcomes and do not find a convincing effect on domestic violence. Yet, these two are very likely independent sources of stress experienced in the household and cannot be used interchangeably nor can be armed conflict used as an instrument for domestic violence in estimating the impact on children's health.

Future research could estimate the impact on other health outcomes and not just for children, e.g. maternal health outcomes or adult health outcomes and explore the effect of armed conflict on domestic violence further. From a public policy point of view, households experiencing armed conflict or domestic violence should be targeted by aid projects to reduce the consequences on the health of children early in their lives.

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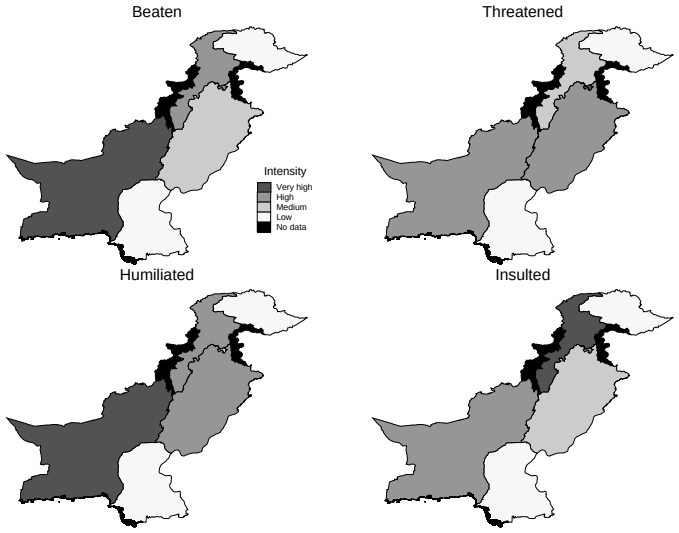
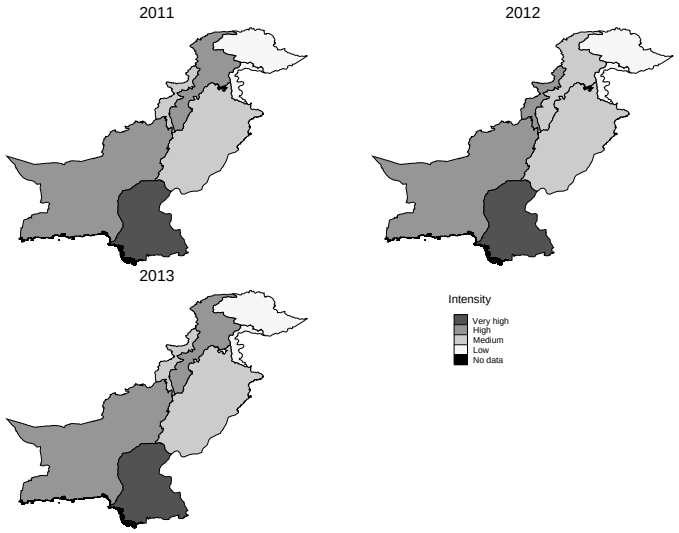
Figures and Tables

Figure 1: Intensity of Domestic Violence across Provinces and Types - Ever



These averages are based on the Pakistan 2012/13 DHS and can be found in Table 1.

Figure 2: Intensity of Political Violence against Civilians - 2011 to 2013



High intensity refers to annual incidences above 300. Very high intensity above 800 incidences. These counts are civilians who died because of political violence in a given year.

Table 1: Different types of domestic violence across the provinces - Averages

	Beaten	Threatened	Humiliated	Insulted
Punjab	0,118	0,049	0,261	0,279
Sindh	0,070	0,014	0,092	0,094
Khyber	0,197	0,027	0,258	0,362
Balochistan	0,214	0,054	0,342	0,339
Gilgit	0,051	0,006	0,102	0,078
Islamabad	0,169	0,058	0,229	0,311

Own calculations based on the PHDS 2012/13.

Table 2: Descriptive Statistics

	All	Conflict	Beaten	Threatened	Humiliated	Insulted
Mother						
Age	32.69	32.69	33.53	32.15	33.44	33.47
Education	43.76	35.20	30.96	29.99	33.83	36.62
Working	19.87	17.71	28.44	33.33	27.42	26.38
Pregnant	11.03	11.84	13.97	14.17	13.40	12.75
Household						
Urban	46.84	47.22	38.27	38.58	36.97	39.77
Wealth	3.11	2.97	2.62	2.66	2.76	2.83
Children born	3.70	3.79	4.51	4.37	4.48	4.41
Living children	3.33	3.42	4.00	3.62	3.91	3.90
Child						
Male	52.08	51.96	52.09	53.81	51.64	51.76
Age	29.86	30.20	31.49	31.01	31.36	31.16
Height in mm	800.50	777.78	808.17	809.35	806.25	808.26
Weight in kg	10.70	10.42	10.99	10.64	10.93	11.09
Small at Birth	19.42	20.10	25.52	24.65	21.43	21.50

Own calculations based on the PHDS 2012/13. Conflict refers to provinces with high levels of political violence. Beaten, threatened, humiliated and insulted are different measures of domestic violence. Education refers to share of women having higher than primary education.

Table 3: SATP Data on Political Violence - Civilians killed - 2011 to 2013

Province	2011	2012	2013
Balochistan	542	690	718
Fata	488	549	319
Khyber	511	363	603
Gilgit	4	27	12
Azad Kashmir	0	1	0
Punjab	110	59	64
Sindh	1082	1318	1285

Table 4: BFSR Data on Political Violence - Civilians killed from 1988 to 2011

Province	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Azad Kashmir	1	4	9	35	16	9	44	24	26	19	75	163	216	38	197	95	2	4	5	8	1	8	10	1
Balochistan	18	2	11	19	25	41	51	13	28	14	12	5	10	39	42	42	90	151	383	254	156	221	220	230
FATA	42	9	4	6	1	1	16	7	26	15	11	4	7	58	20	39	216	129	209	390	317	842	762	544
KPK	77	45	18	26	11	11	40	16	48	36	47	11	38	150	17	60	105	76	79	393	265	801	343	300
Punjab	217	260	231	422	184	250	444	180	603	293	334	90	346	805	109	372	429	286	220	374	302	749	528	336
Sindh	445	431	459	252	136	187	751	1722	369	269	623	86	379	874	117	384	577	379	234	346	207	591	887	971

Table 5: Baseline regressions - Political Violence

	Baseline			Conflict		
Conflict				-.527***	-1.391***	-1.404***
				(.067)	(.123)	(.121)
Child's sex	-.115*	-.123**	-.119**	-.128**	-.123***	-.119**
	(.065)	(.062)	(.061)	(.064)	(.062)	(.061)
Child's age	-.025***	-.024***	-.057***	-.024***	-.024***	-.057***
	(.0020)	(.001)	(.008)	(.002)	(.001)	(.008)
Mother's height	.005***	.004***	.004***	.005***	.004***	.004***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Mother's age	.008	.012**	.013***	.008	.012**	.013**
	(.005)	(.005)	(.005)	(.005)	(.005)	(.005)
Mother's education	.290***	.178**	.183**	.211***	.178**	.183**
	(.081)	(.080)	(.078)	(.081)	(.080)	(.078)
Urban	-.232***	-.093	-.097	-.178**	-.093	-.097
	(.074)	(.078)	(.076)	(.074)	(.078)	(.076)
Wealth	.274***	.230***	.221***	.258***	.230***	.221***
	(.031)	(.034)	(.034)	(.031)	(.034)	(.034)
Province FE	No	Yes	Yes	No	Yes	Yes
Birthyear FE	No	No	Yes	No	No	Yes
n	3235	3235	3235	3235	3235	3235
R^2	0.13	0.20	0.24	0.15	0.20	0.24

Note: Robust standard errors are in parentheses. Level of significance is *** 1 Percent, ** 5 Percent, * 10 Percent. Conflict is a binary measure for provinces highly affected by political violence. Child age is measured in months and includes children up to the age for 59 months. Sex refers to boys compared to girls. Mothers height is measured in cm. Mothers education is a binary variable for having primary education.

Table 6: Models including measures of domestic violence - Experienced in last 12 months

Type of DV	Humiliated			Insulted			Threatened			Beaten		
Domestic Violence	-.130	-.045	-.036	-.164*	-.109	-.085	-.334*	-.324*	-.356**	-.323***	-.218**	-.189*
	(.087)	(.083)	(.082)	(.086)	(.084)	(.082)	(.192)	(.180)	(.171)	(.106)	(.100)	(.096)
Child's sex	-.125*	-.129*	-.102	-.124*	-.128*	-.100	-.127*	-.125*	-.101	-.123	-.122*	-.090
	(.074)	(.071)	(.069)	(.075)	(.072)	(.070)	(.074)	(.071)	(.070)	(.075)	(.072)	(.071)
Child's age	-.023***	-.023***	.060***	-.023***	-.023***	-.059***	-.023***	-.023***	-.059***	-.023***	-.023***	-.060***
	(.002)	(.002)	(.009)	(.002)	(.002)	(.009)	(.002)	(.002)	(.009)	(.002)	(.002)	(.009)
Mother's height	.006***	.004***	.004***	.006***	.004***	.004***	.006***	.004***	.004***	.005***	.004***	.004***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Mother's age	.006	.011*	.011*	.006	.010*	.010*	.008	.011*	.012**	.007	.012*	.012**
	(.006)	(.006)	(.005)	(.006)	(.006)	(.005)	(.006)	(.006)	(.005)	(.006)	(.006)	(.006)
Mother's education	.186**	.070	.071	.165*	.048	.054	.190**	.069	.067	.170	.056	.054
	(.0961)	(.094)	(.091)	(.097)	(.095)	(.092)	(.096)	(.094)	(.091)	(.097)	(.096)	(.093)
Urban	-.258***	-.092	-.085	-.245***	-.075	-.072	-.245***	-.091	-.081	-.206**	-.059	-.054
	(.083)	(.088)	(.085)	(.084)	(.089)	(.086)	(.084)	(.088)	(.086)	(.085)	(.089)	(.086)
Wealth	.313***	.265***	.252***	.315***	.264***	.251***	.297***	.259***	.243***	.273***	.255***	.243***
	(.036)	(.039)	(.038)	(.036)	(.040)	(.039)	(.036)	(.040)	(.038)	(.084)	(.040)	(.039)
Province FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Birthyear FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
n	2499	2499	2499	2447	2447	2447	2466	2466	2466	2418	2418	2418
R^2	0.13	0.21	0.25	0.13	0.21	0.25	0.13	0.20	0.24	0.13	0.20	0.25

Note: Robust standard errors are in parentheses. Level of significance is *** 1 Percent, ** 5 Percent, * 10 Percent. Child age is measured in months and includes children up to the age for 59 months. Sex refers to boys compared to girls. Mothers height is measurered in cm. Mothers education is a binary variable for having primary education.

Table 7: Correlation between domestic violence measures

	Humiliated	Insulted	Threatened	Beaten
Humiliated	1.0000			
Insulted	0.7311	1.0000		
Threaten	0.3194	0.3171	1.0000	
Beaten	0.5567	0.5562	0.3031	1.0000

Note: Based on the sample for children's height. Overall correlation coefficients for the full sample are very similar.

Table 8: Models including measures of domestic violence and armed conflict - Experienced in last 12 months

Type of DV	Humiliated			Insulted			Threatened			Beaten		
Conflict	-.604***	-1.468***	-1.464***	-.606***	-1.459***	-1.457***	-.598***	-1.430***	-1.415***	-.583***	-1.398***	-1.393***
	(.076)	(.141)	(.138)	(.077)	(.141)	(.138)	(.077)	(.145)	(.142)	(.078)	(.144)	(.140)
Domestic Violence	-.127	-.045	-.036	-.164*	-.109	-.085	-.453***	-.324*	-.356**	-.280***	-.218**	-.189*
	(.086)	(.083)	(.082)	(.085)	(.084)	(.082)	(.188)	(.180)	(.171)	(.106)	(.100)	(.096)
Child's sex	-.132*	-.129*	-.102	-.127*	-.128*	-.100	-.132*	-.125*	-.101	-.128*	-.122*	-.090
	(.073)	(.071)	(.069)	(.074)	(.072)	(.070)	(.074)	(.071)	(.070)	(.075)	(.072)	(.071)
Child's age	-.023***	-.023***	-.060***	-.023***	-.023***	-.059***	-.023***	-.023***	-.059***	-.023***	-.023***	-.060***
	(.002)	(.002)	(.009)	(.002)	(.002)	(.009)	(.002)	(.002)	(.009)	(.002)	(.002)	(.009)
Mother's height	.005***	.004***	.004***	.005***	.004***	.004***	.005***	.004***	.004***	.005***	.004***	.004***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Mother's age	.007	.011*	.011*	.007	.010*	.010*	.009	.011*	.012**	.008	.012*	.012**
	(.006)	(.006)	(.005)	(.006)	(.006)	(.005)	(.006)	(.006)	(.005)	(.006)	(.006)	(.006)
Mother's education	.112	.070	.071	.095	.048	.054	.111	.069	.067	.102	.056	.054
	(.095)	(.094)	(.091)	(.096)	(.095)	(.092)	(.095)	(.094)	(.091)	(.097)	(.096)	(.093)
Urban	-.182**	-.092	-.085	-.172**	-.075	-.072	-.172**	-.091	-.081	-.134	-.059	-.054
	(.083)	(.088)	(.085)	(.084)	(.089)	(.086)	(.084)	(.088)	(.086)	(.085)	(.089)	(.086)
Wealth	.287***	.265***	.252***	.289***	.264***	.251***	.273***	.259***	.243***	.273***	.255***	.243***
	(.036)	(.039)	(.038)	(.036)	(.040)	(.039)	(.036)	(.040)	(.038)	(.037)	(.040)	(.039)
Province FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Birth year FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
n	2499	2499	2499	2447	2447	2447	2466	2466	2466	2418	2418	2418
R^2	0.15	0.21	0.25	0.15	0.21	0.25	0.15	0.20	0.24	0.15	0.20	0.25

Note: Robust standard errors are in parentheses. Level of significance is *** 1 Percent, ** 5 Percent, * 10 Percent. Conflict is a binary measure for provinces highly affected by political violence. Child age is measured in months and includes children up to the age for 59 months. Sex refers to boys compared to girls. Mothers height is measurered in cm. Mothers education is a binary variable for having primary education.

Table 9: Including interactions in the Height models

Type of DV	Humiliated			Insulted			Threatened			Beaten		
Conflict	-.598***	-1.472	-1.470***	-.604***	-1.478***	-1.474***	-.603***	-1.443***	-1.438***	-.608***	-1.445***	-1.43***
	(.087)	(.157)	(.154)	(.087)	(.154)	(.151)	(.083)	(.157)	(.154)	(.084)	(.155)	(.152)
Domestic Violence	-.114	-.050	-.045	-.160	-.129	-.101	-.458**	-.333*	-.371**	-.379***	-.339**	-.309**
	(.112)	(.110)	(.107)	(.103)	(.099)	(.097)	(.191)	(.183)	(.174)	(.138)	(.137)	(.127)
Interaction	-.024	.011	.017	-.010	.052	.045	.021	.036	.061	.170	.215	.212
	(.170)	(.166)	(.162)	(.155)	(.147)	(.144)	(.133)	(.128)	(.126)	(.204)	(.196)	(.187)
Province FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Birth year FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
n	2499	2499	2499	2447	2447	2447	2466	2466	2466	2418	2418	2418
R^2	0.15	0.21	0.25	0.15	0.21	0.25	0.15	0.20	0.24	0.15	0.20	0.25

Note: Robust standard errors are in parentheses. Level of significance is *** 1 Percent, ** 5 Percent, * 10 Percent. Conflict is a binary measure for provinces highly affected by political violence. Child age is measured in months and includes children up to the age for 59 months. Sex refers to boys compared to girls. Mothers height is measurered in cm. Mothers education is a binary variable for having primary education.

Table 10: Probability of experiencing domestic violence

Type of DV	Humiliated	Insulted	Threatened	Beaten
Conflict	-.031**	-.009	-.017***	.024**
	(.014)	(.0149)	(.006)	(.011)
Age	-.002**	-.002**	-.001**	-.001
	(.001)	(.001)	(.000)	(.000)
Height	-.000	.000	-.000	.000
	(.000)	(.000)	(.000)	(.000)
Education	-.030*	-.021	-.016**	-.016
	(.018)	(.019)	(.007)	(.015)
Working	.041**	.037**	.017**	.030**
	(.017)	(.019)	(.008)	(.015)
Education Husband	-.029***	-.023***	-.006**	-.014***
	(.007)	(.007)	(.002)	(.005)
Alcohol	.184***	.235***	.055***	.201***
	(.035)	(.036)	(.020)	(.035)
Age Difference	-.000	-.001	-.000	.001
	(.001)	(.001)	(.000)	(.000)
Urban	-.041**	-.031*	.001	-.003
	(.016)	(.017)	(.008)	(.014)
Wealth	-.002	-.002	.000	-.014
	(.007)	(.007)	(.003)	(.005)
No. Children	.016***	.020***	.002	.011***
	(.003)	(.004)	(.001)	(.003)
n	3433	3351	3401	3308
R^2	0.04	0.04	0.01	0.04

Note: Robust standard errors are in parentheses. Level of significance is *** 1 Percent, ** 5 Percent, * 10 Percent. Conflict is a binary measure for provinces highly affected by political violence. Mothers height is measurered in cm. Mothers education is a binary variable for having primary education. Working is the employment status of women.

Table 11: IV regressions to test for omitted variable bias

First Stage	Humiliated	Insulted	Threatened	Beaten
Alcoholism	.257***	.331***	.084***	.236***
	(.041)	(.040)	(.026)	(.040)
F-Value	38.90	65.34	9.83	33.37
Endogeneity (P-value)	0.47	0.52	0.66	0.51
Second Stage				
Height	.274	.123	.404	.093
	(.567)	(.455)	(1.774)	(.651)

Note: Robust standard errors are in parentheses. Level of significance is *** 1 Percent, ** 5 Percent, * 10 Percent. Models are otherwise the same as above. Tests of endogeneity is based on the WU-Hausman test. F-Values from the first stage and for the instrumental variable are reported.

Table 12: Robustness check: Wealth quintiles

	Poorest	Poor	Middle	Rich	Richest
Conflict	-1.379***	-1.822***	-1.733***	-.872*	-.923**
	(.225)	(.310)	(.302)	(.461)	(.439)
Humiliated	-.271	-.061	.083	.010	.080
	(.179)	(.173)	(.206)	(.167)	(.221)
N	570	499	452	534	444
R^2	0.27	0.19	0.29	0.21	0.16
Conflict	-1.371***	-1.818	-1.845***	-.875*	-.926**
	(.229)	(.306)	(.294)	(.465)	(.443)
Insulted	-.202	-.096	-.366*	.0126	.086
	(.193)	(.190)	(.192)	(.157)	(.217)
N	564	480	445	517	441
R^2	0.27	0.19	0.31	0.20	0.16
Conflict	-1.305***	-1.869***	-1.731***	-.876*	-1.000***
	(.233)	(.334)	(.303)	(.456)	(.432)
Threatened	-.297	-.376	.078	-.075	-1.646***
	(.310)	(.356)	(.400)	(.360)	(.352)
N	549	492	451	530	444
R^2	0.25	0.19	0.29	0.21	0.18
Conflict	-1.314***	-1.713***	-1.674***	-.878*	-.938**
	(.230)	(.310)	(.308)	(.463)	(.436)
Beaten	-.338*	-.277	-.019	.028	-.141
	(.192)	(.183)	(.260)	(.234)	(.304)
N	550	472	439	519	438
R^2	0.27	0.20	0.28	0.21	0.16

Note: Robust standard errors are in parentheses. Level of significance is *** 1 Percent, ** 5 Percent, * 10 Percent. Based on the above models including all fixed effects.

Table 13: Robustness check: different f.e.

	Humiliated	Insulted	Threaten	Beaten
Conflict	-2.203***	-2.137***	-1.132	-1.822*
	(.861)	(.868)	(.731)	(.945)
DV	-.049	-.085	-.356**	-.186*
	(.082)	(.082)	(.175)	(.097)
N	2499	2499	2466	2418
R^2	0.27	0.27	0.26	0.26

Note: Robust standard errors are in parentheses. Level of significance is *** 1 Percent, ** 5 Percent, * 10 Percent. Based on the above models.

Table 14: Robustness check: Accounting for possible community ties

	Humiliated	Insulted	Threatened	Beaten
Conflict	-1.464***	-1.457***	-1.415***	-1.393***
	(.208)	(.208)	(.215)	(.213)
DV	-.036	-.085	-.356*	-.189*
	(.094)	(.088)	(.190)	(.108)
N	2499	2447	2466	2418
R^2	0.25	0.25	0.24	0.25

Note: Clustered at the community level standard errors are in parentheses. Level of significance is *** 1 Percent, ** 5 Percent, * 10 Percent. Based on the above models including all fixed effects.