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## 1. Introduction

Even though most countries have adopted formal rules to criminalise violence against women in recent years, the enforcement of such rules is often lacking and women remain on the receiving end of abuse. A recent report by the World Health Organization reports that 35 percent of women around the world have been abused physically and/or sexually.[3] Moreover, the most common form of violence against women is abuse inflicted by their own spouse (Garcia-Moreno, Jansen, Ellsberg, Heise, & Watts, 2006; Heise, Ellsberg and Gottemoeller, 1999).

In this paper, we study the determinants of spousal violence against women in the context of a developing country, Turkey, and are particularly interested in the role of male education. The incidence of domestic violence in Turkey appears negatively correlated with male education (see Section 3 and in particular Table 1). However, the inference in this context is hampered

Our study contributes the literature in several respects. First, to the best of our knowledge, ours is the first study to investigate the causal effects of spousal education on womenôs exposure to domestic violence. The previous literature typically considers the effect of female education on their experience of domestic violence. Second, besides considering domestic violence, we also investigate the effect of male education on

lower fertility rates. Mocan and Connanier (2012) find that schooling improves women`s attitudes towards risky health behaviours and reduces their tolerance of violence that threatens their wellbeing. Women`s education also decreases the desired number of children and raises the usage of modern contraception methods (Mocan & Connanier, 2012; Samarakoon & Pariduri, 2015). On the other hand, there seems to be no relationship between women`s education and their authority in decision-making (except savings), ownership of assets (apart from jewellery and household appliances) and participation in the community (except visiting community-weighing post) (Samarakoon & Pariduri, 2015).

Studies investigating the effect of female education on spousal violence using credible instruments are rare. There is only one unpublished paper by Erten and Keskin (2016) dealing with the endogeneity of schooling for females. They use the same education reform in Turkey with an older version of the same survey employed in the present paper and a Regression Discontinuity (RD) Design. They find that female education has no impact on marriage decision, payment of bride money, incidence of spousal violence and controlling behaviour of their partner. Most of the previous literature has investigated this issue without addressing the endogeneity bias and finds that women with higher education who live in more conservative societies are more likely to encounter domestic violence compared to similar women living in less conservative environments (Abuya, Onsomu, Moore, & Piper, 2012; Karamagi, Tumwine, Tylleskar, & Heggenhougen, 2006). It seems that female education is not correlated with spousal violence, rather, the role of the environment is crucial.

There are a few previous studies that examine the effects of male education on spousal violence

and controlling behaviour against his spouse or other socially unacceptable behaviour of men. These types of behaviours can strengthen the risk of violence against women (Jewkes, Levin, & Penn-Kekana, 2002).

### *2.2 Effects of Other Determinants*

According to the ñcycle of violenceò hypothesis, personal history of childhood abuse increases the likelihood of experiencing or engaging in violence in later years. Especially, experience of violence during childhood is an important determinant of spousal abuse later in life (Abrahams & Jewkes, 2005; Flake, 2005; Jewkes et al., 2002; Martin et al., 2002; Naved & Persson, 2005; Rivera-Rivera et al., 2003; Yüksel-Kaptanoĵlu, T¿rkyēlmaz, & Heise, 2012).

There is a correlation between power dynamics among couples and the difference in educational attainment and ages of married couples. In the context of Nepal, Adhikari and Tamang (2010) find the age difference between husband and wife to be a significant factor of violence against the wife. On the other hand, the findings are inconclusive about the effect of education gap between couples on violence against women. When women have more education than their partner, they are more likely to experience spousal violence in India (Ackerson, Kawachi, Barbeau, & Subramanian, 2008), whereas Hindin, Kishor, and Ansara (2008) report no significant association for Bangladesh.

It has been also found that violence rises when women are isolated from their biological family and close friends (Ellsberg et al., 1999; Heise, 1998). Those who can obtain support from their family members are less likely to face spousal violence (Clark et al, 2010; Naved & Persson, 2005). Moreover, in India, Egypt and Peru, women who come from the higher end of the wealth spectrum are protected more compared to women living in lower economic conditions (Kishor and Johnson, 2004).

There is an ambiguous relationship between violence and the employment status of women. Rao (1997), for example, suggest that the personal income of a woman has a noticeable negative influence on physical violence from her partner. Nevertheless, Krishnan et al. (2010) find that low-income women in Bangalore who were employed are more likely to experience domestic violence than women who were unemployed. Additionally, property ownership may offer women a choice outside of marriage as well as a security against labour market shocks. Panda and Agarwal (2005), in Indian context, use regression control strategies and find that if a womanôsô ownership of land increases, the authority of women to make important decisions rises, and violence against women decreases. The behaviours of men might also be different towards their spouse because of differences in cultural values between urban and rural areas. For instance, in the Middle East, women who live in rural areas are at higher risk of violence than those in urban places (Boy & Kulczycki, 200cki, 200cki, 200cki, 200cki, 200For Additionally,

Public education has been provided free of charge in Turkey since the foundation of the republic in October 1923. Until August 1997, compulsory education was 5 years. The education law change increased this to 8 years. By doing so, primary school (grade 1-5) and lower secondary school (grade 6-8) were combined. However, the compulsory education reform (CER) has had little effect on the quality of education. An in-depth analysis of CER by Dulger (2004) for the World Bank concludes that the 1968 national education curriculum has been kept with minor alteration because of the time constraint during the implementation of the reform. Instead, the Ministry of National Education of Turkey (MONE) was mainly concerned with the capacity of educational institutions. In order to accommodate the new students, the MONE budget was increased by US$2 billion for the period between 1997 and 2000 (Dulger, 2004). With these additional resources, the government constructed new schools, employed new teachers and renovated old schools. For instance, 81,500 new classrooms for primary education were built during 1997-2002, which amounts to around 30% capacity increase (World Bank, 2005). As can be seen in Figure 1, the gross primary school enrolment rate (grade 1-8) decreased somewhat in the period before the compulsory education reform (1990-97). In contrast, there was a sharp increase in the gross enrolment rate in the primary education after the reformôs implementation.

The amendment in the education law went into effect in September 1997, immediately after the approval of the law. According to Turkey`s primary education law, school enrolment is determined according to calendar years.[4] Therefore, boys born in 1987, who started the 5$^{th}$ grade in September 1997 or later were exposed to the schooling reform and had to complete 8 years of compulsory education, whereas older individuals were not bound by the reform. However, those who were born in the last quarter of 1986 might be still affected by the reform

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as the implementation of age threshold was not strict. Because of this reason, we check the sensitivity of the results by dropping the 1986 birth cohort.

## 5. Data

The first wave of National Survey on Domestic Violence against Women (NSDVW) was carried out in Turkey in 2008.[5] Then, the second wave of this cross section study was conducted in 2014 to measure the trends in the prevalence of violence against women. Main research data in this paper is drawn from the second wave of this survey.

Considering the sensitivity of the research, within the data collection period, the relevant World

characteristics, marriages and how their marriages were formed. In addition, the survey includes a set of questions regarding the behaviour of their spouses towards them.

### *5.1 Dependent Variables*

*Violence indexes*[8]

Women who have ever had at least one partner answered the question related to whether a specific type of violence has ever been inflicted on them by their partners. The next questions were asked to women who were victims of spousal violence to identify the frequency of the abuse by their partner. For the sake of the analysis, we combined these two questions to calculate the frequency of the violence. For each violence type, the frequency of violence ranges from 0 to 8. The value of 0 corresponds to no experience of that particular violence type whereas 8 means that her partner has abused her numerous times during their relationships or marriage.

*a) Physical Violence index:* Six variables are used to construct the physical violence index: husband or intimate partner (i) slapped, or threw something that could cause injury at, wife, (ii) pulled her hair, (iii) punched or hit her with things that could hurt her, (iv) kicked, dragged or beat her up, (v) burned or choked her, and (vi) threaten her with a gun, knife or any other weapons or actually used it. To form the index, these variables are added up so that the aggregate index ranges between 0 and 48. To make the interpretation easier, each index is normalized by dividing by the maximum possible value. In this example, the maximum value is 48. The normalised index then always ranges between zero (no 1 246.05 459.07 1-8(e)4(r.)]TJETQ ways at

*b) Sexual Violence index:* 3 variables were used, reflecting whether the woman: (i) was ever forced to have sexual intercourse; (ii) had sexual intercourse because of the fear of her husband; (iii) was forced to participate involuntarily in a sexual act with her husband/intimate partner that she finds humiliating and degrading. Again, the range is between zero and one.

*c) Economic Violence index:* A set of 3 variables were used capturing whether the husband: (i) prevented the woman from working or made her quit her job, (i) refused to give her money for household expenditures even though he had money, and (iii) took her income without her permission. The index again ranges from zero to one.

*d) Emotional violence index:* The emotional-violence-related variables measure whether the husband: (i) insulted, (ii) humiliated, (iii) scared, or (iv) threatened to hurt the woman. The index again ranges from zero to one.

*f) Lifetime violence index:* This index collects all 16 violence related variables into a single overall index showing the frequency of all types of violence experienced by the woman from her spouse during her lifetime. Again, the index ranges from zero to one.

*Controlling behaviour index:* A set of 9 binary variables, which take the value of one if the woman reports that she experienced a particular controlling behaviour from her husband and zero otherwise, are used to construct the index. These a,ueusott her 153(husba)3(nx)-9( )10((i))4( )10(s )-12d

*Socially unacceptable behaviour index:* A set of 5 binary variables, which take the value of one if the woman reports a particular type of behaviour by her husband, is used to build the socially unacceptable behaviour index. These variables are whether her husband: (i) often drinks alcohol, (ii) frequently gambles, (iii) uses drugs, (iv) argues with other men including engaging in physical violence, (v) cheats on her. Again, these are added up and normalised so that the index ranges from 0 to 1.

*Unwanted marriage:* A dummy variable which equals to one if the woman did not want the marriage and zero otherwise.

*Blood relationship with husband:* A dummy variable which equals to one if the woman has a blood relationship with the husband and zero otherwise.

*Bride money paid:* A dummy variable which equals to one if the husband`s family paid bride money to her family and zero otherwise.

***5.2 Independent Variables:***

*Asset ownership index of woman:* Each variable equals one if the woman owns the assets either by herself or jointly with someone else, and zero otherwise. Ownership of land, house, company, vehicle and savings in a bank are included as assets. These are added up and normalised so that the index ranges from zero to one.

*Wealth index:* This index was calculated by considering the ownership of various assets by

*JHS:* A dummy variable equals to one if the respondent`s husband completed 8 years or more formal education (junior high school), and zero otherwise.

*HSE:* A dummy variable equals to one if the respondent`s husband completed 11 years or more formal education, and zero otherwise.

*UEDC:* A dummy variable equal to one if the respondent`s husband completed 15 years or more formal education, and zero otherwise.

*Husband`s mother experience of domestic violence: Three* dummy variables were generated: (1) the husband`s mother was not abused by her partner, (2) she was abused, (3) the respondent does not know whether her mother in law has experienced violence or not.

*The respondent`s mother experience of domestic violence:* Three dummy variables were generated: (1) the respondent`s mother was not abused by her partner, (2) she was abused, (3) the respondent does not know whether her mother has experienced violence or not.

*Husband`s experience of violence:* Three dummy variables were generated: (1) her husband was not abused by family members, (2) he was abused, (3) the

*The difference in education:* Three dummy variables were generated for each of the following categories: (1) husband has more education than his wife, (2) no difference in education, and (3) woman has more education than her husband

*The difference in age:* Four dummy variables generated for each of the categories: (1) approximately the same age, i.e. maximum one-year age difference. (2) woman is older than her husband. (3) the man is older than his wife by 2 to 4 years. (4) husband is older than his wife by more than 5 years.

*Employed woman:* A dummy variable was coded as one if a woman works, zero otherwise.

*Unemployed husband:* A dummy variable coded as one if the husband is unemployed.

*Family members of the respondent live far from her*: A dichotomous variable which equals one if the respondent lives far from her family, and zero otherwise.

*Woman can count on family members for support:* Three dummy variables are generated for each category of the family support variable: (1) yes, (2) no, and (3) d

mothers experienced spousal violence, and 21% of husbands experienced violence during childhood. 5% of the spouses have a different ethnicity, 44.5% of the men have more education than their wife, and 35% of men are around the same age with their wife. Majority (78%) of the men are Turkish, most women do not work (26% are employed) whereas only 6% of the men are unemployed, 23% of the women own of at least one type of asset, 32% of the women live far from their birth family, 81% of the women report that they can count on their families for support, and 20% of the respondents live in rural area.

**6. Empirical Framework**

The link between education and its non-market returns is captured by Equation (1) below, where Y stands for the non-market outcome of interest. This can be domestic violence and abuse, socially intolerable behaviour, man controlling behaviour, or marriage characteristics, such as whether the spouses have a blood relationship; the husband paid bride money; or the wife was forced into the marriage.

= + + + (1)

represents the schooling of husband *i* measured by completing junior high school (i.e. completing 8 years of education). $X_i$ consists of a vector of independent variables, which include: (i) personal abuse history of the husband, his mother`s and wifeôs mother, (ii) characteristics of the couple, such as dummies 4ies couple,le, 21-3(on )ƫTJ2.041-3(on )-129(3ƫTJET-3(on )thc

Equation (1) also controls for dummies for the region of residence for 26 regions of Turkey and for living in a rural neighbourhood.[9]

Robust standard errors are clustered at the 26 regions of residence of the country in all regressions. At a first glance, it seems the number of clusters is relatively small. According to Bertrand, Duflo, & Mullainathan, (2004), if the number of clusters is less than 42-50, the null hypothesis is more likely to be rejected even if it is true. However, Cameron, Gelbach & Miller (2008) reach a more optimistic conclusion about drawing inferences with few clusters and finds that the likelihood of the rejection of the null hypothesis, when it is true, is lower when there are less than 20 clusters. Hence, it can be said that the number of clusters in this study is sufficient to obtain reliable clustered robust standard errors.

However, the results can be biased by the endogeneity of schooling, reverse causality between education and outcome variables or measurement error, yielding biased coefficients. To deal with this, we exploit the three-year exogenous variation in schooling attainment across cohorts induced by the timing of the Compulsory Education Reform as an instrument for education. A valid instrument should have no direct effects on the outcome of the interest other than its impact through education. Our instrument satisfies this condition. First, the CER was motivated by political events in 1997, so that it has no connection with the outcomes considered in this study. Specifically, the main purpose of the reform was to prevent the spread of religious education, and the law was enacted by the secular government, which came to the office just before the introduction of the education reform. Second, factors causing endogeneity of the schooling and reverse causality problems, such as ability bias and other background

[9] Although control variables are likely to be endogenously determined, we still control for these variables to account for the fixed effects of these determinants on violence against women. Importantly, this issue applies to control variables which are interesting but not crucial. Even if those coefficients are biased, it should not affect the estimated effect of education, which is the main point of the paper.

characteristics, are unlikely to be related to the birth year. For all these reasons, we are confident that the reform satisfies above-mentioned validity condition.

Angrist (1991) and Angrist (2001) recommend using the Two Stage Least Square (2SLS) rather than IV-Probit or Logit when the instrument and dependent variables are dummies as in the case of this study. In such a case, the 2SLS technique estimates LATE without any bias (Angrist, 2009)[10]. There are numerous examples of using the 2SLS and Linear Probability Models instead of IV Probit/Logit and Probit/Logit in the economics of education literature (e.g. Cesur et al., 2014; Clark & Royer, 2013; Jürges, Reinhold, & Salm, 2011; Siles, 2009; Xie & Mo, 2014).

The first stage of the 2SLS estimation is given by equation 2:

$\hat{} = + + + \quad (2)$

where $\hat{}$ is the predicted value of schooling of men measured, alternatively, by the number of years of education and by completing junior high school (i.e. completing 8 years of education); is the set of control variables defined above; *T* is a dummy variable equal to one for men born in or after 1987, and zero for those who were born before 1986. Hence, men aged 23-27 in 2014 constitute the treated group, and older men aged 28-33 form the control group.

It is conventional in the literature to estimate the Linear Probability Model of Equation (1) without controls to test the validity of the treatment and control groups. To do this, the dummy is replaced by dummies representing each age of the respondents (in years) at the time of the survey. Figure 2 plots the coefficients of these age dummies.[11] These are jointly

[10] The conventional 2SLS estimates identify the Local Average Treatment Effect (LATE), which is the effect of the treatment on those who changed their behaviour due to the instrument (i.e. compliers) (Imbens & Angrist, 1994).

[11] Unreported results of this unrestricted model are available upon request.

significant for ages 23-27, and insignificant for men aged 28 to 32 (the p-values are 0.018 and 0.996, respectively).[12]

If the education reform has no direct impact on the outcomes other than its effect on schooling, the results of Equation (2) can be used as the first stage of the 2SLS estimation. More specifically, serves as an instrument for schooling.

Therefore, unbiased effect of education can be obtained by estimating Equation 3:

$^{2}$ = + + ^ + (3)

where ^ indicates the predicted value of schooling, as given by Equation (2), and $^{2}$ shows the outcome of interest. The remaining explanatory variables and clustering of robust standard errors are the same as in Equation (2).

Finally, both the OLS and 2SLS methodologies give structural estimates. By replacing ^ in Equation (2) with the outcome of interests, we can obtain the reduced form (RF) estimates:

=

a university degree (UEDC). This is not surprising, as the CER had no direct effect on these higher stages of education. These results are important since if the value of F statistics is less than 10, the weak instrument problem arises (Staiger & Stock, 1997). For this reason, completing 8 years of education variable will be considered as the sole measure of schooling in this study.

The reform has had a considerable effect on the probability of completing 8 years of schooling

statistically significant and the coefficients are close to zero for all measures of violence considered. The significance and magnitude of the 2SLS coefficients of return to an exogenous increase in schooling vary by the type of violence considered. The first column shows that completing junior high school lowers the incidence of overall spousal violence against women by 12.4 percentage points. Considering the sub-

they are, on average, married to less educated women than the treated males. On the other hand, Erten and Keskin (2016) find a statistically insignificant causal effect of women`s education

for schooling and find that wife`s education is strongly associated with marriage age and early fertility choice, however, spouses` education is an equally important determinant of child mortality.

*7.2.3. Education Effect on Controlling and Socially Unacceptable Behaviours*

Columns 4 and 5 of Table 5 present the effects of education on the frequency of engaging in controlling behaviour against the wife and socially unacceptable behaviour of men. The OLS estimates in row 1 shows no statistically significant correlation between the husband`s education and these outcomes. However, the 2SLS estimates in row 3 indicate that completing 8 years of schooling does not improve the incidence of controlling behaviour, whereas it decreases the intensity of socially unacceptable behaviour by 7.8 percentage points. The RF estimates show that the reform has generated a reduction by 1.4 percentage points in the

positively correlated with history of abuse experienced by the husbandôs or wifeôs mothers or by the husband himself. Hence, domestic violence, on either the husbandôs or wifeôs side, can have significant repercussions also in future generations.

The effects of the ethnicity of husband, a proxy for his cultural environment, indicates that Kurdish men are more likely to pay bride money than Turkish men, but the incidence of socially unacceptable behaviours, emotional and physical violence is lower for Kurdish compared to Turkish husbands.

Differences between the two spouses in education or age have a bearing for several marriage characteristics: women who are older or more educated than their husbands are more likely to find themselv20wm4 494.70 595.32771 Tm0 g0 G0( G[6o)-6nthan Kuiah

marriage, but the incidences of economic violence and socially unacceptable behaviours of men both fall.

Economic endowments and labor-market status of the two spouses are important as well. Higher family wealth index increases the probability of blood relationship with husband whereas having her own assets is decreases the intensity of physical violence. Finally, the intensity of socially unacceptable behaviour increases when the wife works and when the husband is unemployed.

### *7.4 Sensitivity Tests: Restricted Schooling Attainment Outcomes*

The 2SLS estimates show the impact of education on compliers (LATE) only. As shown before, the education reform has no impact on graduating from senior high school (SHS) or university. If the reform does not have any spillover effects on completion of university and senior high school degrees, removing SHS and university graduates from the sample does not alter the composition of compliers. However, some members of the control group hold SHS and university degrees, and to some extent, their observed control variables should be dissimilar from others in the sample. Because of this, excluding them from the sample might have a significant impact on the estimated coefficients (e.g. Aydemir & Kirdar, 2015). To explore this in detail, in this section, we impose different restrictions on the highest educational attainment in the sample. Firstly, we remove the university graduates. Row B of Table 7 shows the results of the 2SLS estimates for people who hold at most a SHS degree.[16] It is apparent from the table that the results are robust to this.[17] Next, we exclude also SHS graduates. Now, the sub-sample includes only compliers, many of whom would complete only 5 years of schooling in the absence of the reform but were required to complete 8 years of compulsory

[16] Model specifications of the third row of Tables 4 and 4 are used to the estimates reported in Table 7.
[17] In this restricted sample, the effects of the reform on completing 8 years of education, JHS, was also quite similar to the baseline estimates.

set to estimate health effects of education and reaches a similar conclusion with narrower age sample.

## 8. Conclusion

This paper constitutes, to the best of our knowledge, the first empirical investigation of the relationship between the husbandsô education and violent and abusive behaviour against women, estimated in a way that is robust to endogeneity of education. Specifically, we take advantage of a natural experiment, a compulsory education reform in Turkey, which increased the legally mandated length of schooling from five to eight years. The results of our analysis suggest that increasing male education reduces the incidence of domestic violence for most types of abusive behaviour: physical, emotional, and economic, the only exception being sexual violence. Higher education also reduces the frequency of marriages concluded against the womanôs wishes and makes men less prone to engage in socially unacceptable behaviour (drinking, gambling, drug abuse and the like), albeit this effect is somewhat less precisely estimated.

Education has important private and social returns, which are well documented in previous literature. Our analysis suggests a range of additional benefits. Given the widespread incidence of domestic abuse against women in developed and developing countries alike, and the adverse effects that it has on women, the effects identified by our analysis can lead to substantial improvements in womenôs wellbeing. Furthermore, our results show support for the cycle of violence hypothesis: the history of maternal domestic abuse, either on husbandôs or wifeôs side, increases the incidence of domestic violence at present. Therefore, reducing violence against women today can lead to improvements both contemporaneously and in the future.

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## Figure 1. Gross enrolment rate in 8-year primary school education by Academic Year

**Figure 1:** Gross enrolment rate in 8-year primary school education by academic year calculated as the number of students in grade 1 to 8 divided by the relevant population at that age group (i.e. aged 6-13). Enrolment rates during the 1990-97 period (prior to the CER) are calculated by adding the sum of the students in the primary school and junior high school. Own calculation based on MONE statistical data for 1990/91 to 2003/04 school years.

## Figure 2. Coefficients of age dummies

**Figure 2 Coefficients of age dummies.** *Notes: The sample covers all men aged of 23-33 at the time of the survey. Men aged 28 are the youngest unaffected birth cohort. Each point on the solid line show(d)81 to the CE*

**Table 1. Violence against Woman by Spouses Educational Attainment**

| Spouse`s Education | Violence | Economic | Emotional | Physical | Sexual |
|---|---|---|---|---|---|
| No | | | | | |

**Table 2.**

| | | | | | |
|---|---|---|---|---|---|
| Unemployed husband | 1303 | 0.061 | 0.240 | 0 | 1 |
| Asset ownership of woman | 1302 | 0.233 | 0.423 | 0 | 1 |
| Woman family members live far away from her | 1303 | 0.325 | 0.469 | 0 | 1 |
| **Woman counts on family support in case of a need** | 1301 | | | | |
| Yes[r] | | 0.814 | 0.389 | 0 | 1 |
| No | | 0.160 | 0.367 | 0 | 1 |
| Does not know | | 0.025 | 0.157 | 0 | 1 |
| Lives in rural residence | 1303 | 0.202 | 0.401 | 0 | 1 |

Notes: r used as a reference category

**Table 3. The Effect of CER on School Completion (First Stage Results)**

| VARIABLES | HGC | JHS | SHS | UEDC |
|---|---|---|---|---|
| Instrument | 0.522** | 0.176*** | -0.000 | -0.012 |
| | (0.226) | (0.019) | (0.035) | (0.029) |
| F statistics | 5.350 | 85.680 | 0.000 | 0.180 |
| Observations | 1,281 | 1,281 | | |

**Table 4.** **Domestic Violence**

| | General | Economic | Emotional | Physical | Sexual |
|---|---|---|---|---|---|
| OLS | -0.013 | -0.019 | -0.004 | -0.014 | -0.016 |
| | (0.013) | (0.013) | (0.016) | (0.010) | (0.010) |
| RF | -0.022*** | -0.017*** | -0.034*** | -0.018*** | 0.001 |
| | (*0.007) | (0.006) | (0.011) | (0.005) | (0.011) |
| IV | -0.124*** | -0.093*** | -0.191*** | -0.103*** | 0.197 |
| | (0.034) | (0.035) | (0.055) | (0.026) | (1.465) |
| Observations | 1,250 | 1,271 | 1,272 | 1,264 | 1,280 |

| | Unwanted marriage | Relationship with husband | Partner paid a bride price | Controlling behaviour | Socially unacceptable behaviour |
|---|---|---|---|---|---|
| OLS | -0.178*** | -0.094** | -0.058* | -0.022 | 0 |
| | (0.031) | (0.036) | (0.030) | (0.014) | (0.010) |
| RF | -0.107*** | 0.049 | 0.004 | 0.001 | -0.014* |
| | (0.024) | (0.036) | (0.02) | (0.014) | (0.007) |
| IV | -0.607*** | 0.279 | 0.024 | 0.007 | -0.078* |
| | (0.140) | (0.213) | (0.108) | (0.078) | (0.041) |
| Observations | 1,281 | 1,279 | 1,279 | 1,270 | 1,278 |

**Notes:** Robust standard errors clustered at the 26 regions of residence are reported in parenthesis. Significance levels: *** p<0.01, ** p<0.05, * p<0.1. All regressions control for employment status of man and woman, difference in ethnicity between husband and wife, ethnicity of husband, asset ownership index, wealth index, rural residence, husband`s and wife`s maternal physical abuse history, differences in education and age, and fixed effects of 26 regions of residence.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | (0.016) | (0.018) | (0.027) | (0.016) | (0.384) | (0.076) | (0.122) | (0.070) | (0.024) | (0.011) |
| Woman`s birth family does not support woman in case of a need | 0.015 | 0.008 | 0.002 | 0.018* | 0.418 | -0.061* | 0.014 | 0.118*** | 0.026 | 0.005 |
| | (0.012) | (0.015) | (0.020) | (0.010) | (0.340) | (0.037) | (0.054) | (0.033) | (0.021) | (0.015) |
| Woman is not sure about her birth family`s supports in case of a need | -0.001 | -0.013 | -0.014 | 0.019 | 1.110 | 0.076 | -0.028 | 0.079 | 0.068 | 0.031 |
| | (0.024) | (0.019) | (0.033) | (0.024) | (0.912) | (0.106) | (0.062) | (0.054) | (0.046) | (0.027) |
| Wealth index | 0.008 | 0.001 | 0.028 | 0.013 | -0.775 | 0.087 | 0.444 | BDC | | |

**Table 7.**