Do Relative Status of Women and Marriage Characteristics Matter for the Intimate Partner Violence?

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Abstract

This paper analyses intimate partner violence in Turkey which faces an enormous increase in femicide cases over the last decade. Analyzing a very rich nationwide representative survey, we show that relative status of women in terms of income and education affect different types of domestic violence, ranging from emotional abuse to physical and sexual violence. Besides, factors related to marriage setting have a significant role in the effect of women's superior status on intimate partner violence. Overall, we provide evidence to support the relative resource theory and invalidate the intra-household bargaining model in the Turkish case.

JEL Codes: J12, J16, J31.

Key Words: Abuse, domestic violence, female employment, education, gender inequality, Turkey.

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Kadının Göreli Statüsü ve Evlilik Özellikleri Aile İçi Şiddet İçin Önemli mi?

Öz

Bu çalışma son yıllarda kadın cinayetleri sayısında önemli bir artış görülen Türkiye'deki aile içi şiddeti analiz etmektedir. Ülke genelinde kadın nüfusunu temsil eden zengin bir mikro veri setinin analizi, bize kadınların partnerlerine kıyasla gelir ve eğitim durumlarının çeşitli aile içi şiddet türlerine etkisi olduğu bulunmuştur. Ayrıca, evlilik özellikleri de kadının göreli üstünlüklerinin aile içi şiddete etkisinde önemli bir rol oynamaktadır. Genel olarak, bu çalışma göreli kaynak teorisini desteklemekte ve aile içi pazarlık modelinin ise Türkiye örneğinde geçersiz olduğunu tespit etmektedir.

1. Introduction

According to the World Health Organization (WHO, 2018), one in three women has experienced physical or sexual violence at one point in their lives. Domestic violence whether emotional, psychological, economic, physical or sexual is an epidemic problem affecting women, their families and the society they are part of. Thus, its effects might be felt not only in the short-term but also in the long-term through its negative externalities such as violence towards children, psychological effects on family members and even low trust level in the society as well as denying women education and/or employment, so on and so forth.

Official statistics show a substantial rise in femicides over the last 20 years in Turkey. A platform established to stop such murders has announced that 474 women were killed by men only in 2019 nationwide (We will stop femicide platform, 2020). Law No. 6284 on the Protection of Family and Prevention of Violence Against Women defines domestic violence as "any physical, sexual, psychological and economic violence between the victim and the perpetrator and between the family members and the people who are considered a family member whether they do or do not live in the same house" (Article 2/b). Extracted from a report by the Ministry of Health (2014), only in 2013, 13,853 women have applied to medical institutions complaining about injuries resulted from domestic violence. Yet relevant academic research, both quantitative and qualitative, is incredibly scarce in the Turkish context.

The first nationwide quantitative study on the issue has been conducted by the Turkish Presidency's Institute of Family Research and its findings were published in 1995 (Başbakanlık Aile Araştırma Kurumu, 1995). According to this report, socio-economic status of household head, frequency of alcohol consumption, economic power of women, experience of violence during childhood, net family income and household size all had significant correlations with the incidence of domestic violence in Turkey in 1994. Second major study about the issue has been completed by Altinay and Arat (2008) in which they collected data from a comprehensive fieldwork in 56 provinces, interviewing 1,800 married women. They have found that one in every three women has experienced physical violence in their sample. Contrary to the nationwide report in 1995, Altinay and Arat (2008) presented that physical violence against women increases by at least two folds if women earn higher wages than their partners. Another important finding of their study is higher prevalence of violence for adults who were raised in an environment mired in domestic violence. Those two and some other studies (see, for example, Altinay and Arat, 2008, Guler et al., 2005, Akar et al., 2010) also suggest a common finding: the greatest threat for women are mostly inside their houses and the hands they fall prey to mostly belong to their partners. Additionally, there are some recent studies that try to understand the causal effect of an increase in education on domestic violence in Turkey. For example, Erten and Keskin (2018) analyses the effect

of 1997 compulsory schooling law amendment on the prevalence of intimate partner violence (IPV; hereafter). They have found that higher levels of educational attainment by women in rural areas did not affect prevalence of physical violence however it reduced psychological and economic abuse.

This study aims to answer three main research questions analyzing a nationally representative survey on IPV in Turkey. Firstly, what is the role of women's absolute status (in terms of education and employment) on different types of IPV? Secondly, what is the role of women's relative status (education and income) on IPV? Thus, we particularly test the intra-household bargaining model and relative resource theory in a developing country context. And, lastly, we analyze whether the role of women's superior status on IPV changes with the type of marriage that partners (such as arranged marriage, bride money is paid etc.) are involved in.

2. Violence Against Women: Theoretical Explanations

Theories in the literature treats violence as an intentional action and different disciplines tried to explain the intimate partner violence (IPV; hereafter) through a different lens. Although the literature review of these theoretical explanations is not the aim of this paper, main frameworks of explaining IPV are summarized in this section.

Firstly, ***intra-household bargaining model*** in economics suggests that domestic violence against women decreases if relative bargaining power of women improves. This could be achieved, for example, through a better labor market outcome for women than their partners either in terms of employment or income (Aizer, 2010). This theory also suggests that potential relative wages of partners matter instead of actual current wages as it gives men information about the outside options of women and acts as a crucial component of women's bargaining power at home. Anderberg et al. (2016) confirm this theory in the United Kingdom context, using the British Crime Survey and locally disaggregated labor market data. Some feminist theories also provide an explanation to IPV through economical reasoning. Contrary to the intra-household bargaining theory, ***relative resource theory,*** which is sometimes also called as gender deviance neutralization (Weitzman, 2014), suggests that relative resource gaps between husbands and wives causes men to have more aggressive and violent behaviors (Atkinson et al., 2005). Macmillan and Gartner (1999) validate this hypothesis through their finding that employed women who are married with unemployed men are more likely to be abused. Additionally, women with higher incomes compared to their husbands have higher likelihood of experiencing IPV (Anderson, 1997, Fox et al., 2002, McCloskey, 1996, Melzer, 2002). Moreover, women with higher educational level or better occupational status than their partners have higher probability of IPV (O'Brian, 1971, Atkinson et al., 2005, DeMaris et al., 2003, Gelles, 1974, Macmillan and Gartner, 1999, Yllo and Straus, 1990). ***The model of economic exclusion and male peer support*** argues that economic transformation in modern societies such as urbanization, shift from

manufacturing to service-based economy and higher levels of poverty might lead men to lose their roles as bread winners and this creates high levels of stress (DeKeseredy and Schwartz, 2002, Sernau, 2001, Raphael, 2001). This extra stress encourages economically excluded men to search for social support from their male peers with similar situations (DeKeseredy and Schwartz, 2011) which might result in detrimental consequences for women such as higher incidence of women abuses and sexual assault (DeKeseredy, 1988, Raphael, 2001).

Moreover, *the theory of exposure reduction* in criminology, on the one hand, suggests that an increase in employment, regardless of the gender of partner, would help diminish domestic violence by reducing the time partners spend together (Dugan et al., 1999). Kalmuss and Straus (1990), however, have established that economic dependency of women increases their probability of being in a marriage with severe abuses. *The theory of male backlash*, on the other hand, suggests that as women's financial independence increases, violence against them may increase as a consequence of men feeling threatened upon losing their dominating role in households. (Molm, 1997, Macmillan and Gartner, 1999) This is argued to be the case particularly in countries with a strong patriarchal culture that despises divorce as an exit strategy for women (Luke and Munshi, 2011). Chin (2012) found, in rural Indian context, that 'exposure reduction effect' dominates the male backlash effect. Similar to male backlash hypothesis, *extraction effect hypothesis* suggests that a husband may commit violence to extract a monetary transfer from his wife (Goetz and Gupta, 1996, Bloch and Rao, 2002, Chin, 2012).

Furthermore, *the theory of communitarian justice and cultural acceptance* in anthropology focuses on the role of cultural differences in explaining the level and frequency of IPV. Albo (1994), for example, argues that social recognition and acceptance of intra-household violence among indigenous populations could cause favoritism with respect to violence. In addition, *the cycle of violence theory* in sociology suggests that child maltreatment increases the likelihood of experiencing or engaging in violence in adulthood (Fagan, 2005). This is also related with *the social learning theory* that is used in psychology, and often termed as the intergenerational transmission of violence. It argues that violence can be learned through experiences of and/or exposure to it (Bandura, 1973, Strauss et al., 1980, Strauss, 1991). In addition to direct exposure to and/or experience of violence in a family, Bandura (1973) argues that it can also be learned through culture and media. Although its critics argue that social learning theory cannot fully explain IPV, it has been argued in the literature that 'victimization and witnessing of violence are among the most consistent risk markers for adult violence' (Jasinski, 2001: 8). Another prevalent theoretical explanation in psychological framework is the *psychopathological explanation of violence* which argues that those who have personality disorder or mental illness are the ones engaging in violent act (Dutton et al., 1994, Dutton and Starzomski, 1993). These psychological explanations

are validated in the empirical literature which suggests that male-to-female domestic violence could also be due to factors like alcohol consumption (Angelucci, 2008), emotional shocks (Card and Dahl, 2011) and/or mental disorder (Elbogen and Johnson, 2009).

Furthermore, there are also biological and physiological explanations for the IPV. ***Evolutionary perspective*** suggest that sexual assaults are related with the natural selection and sexual violence by the intimate partner is the product of maximizing men's reproductive prowess (Burgess and Draper, 1989), and can also be attributed to the 'tendency to think of women as sexual and reproductive *property* they can own and exchange' (Wilson and Daly, 1992: 85). Moreover, other biological or physiological issues such as the role of childhood attention deficit orders or head injuries (Warnken et al., 1994) and levels of testosterone and serotonin (Johnson, 1996) are argued to be related with IPV.

Last but not the least, there are competing feminist theories of IPV in adult heterosexual relationships. Although they have differences in their focus, they all focus on social forces behind IPV such as patriarchy and power relationships. According to the most prominent feminist theory, namely ***radical feminist theory***, men engage in violence against women because of their need and desire to control them (Daly and Chesney-Lind, 1998). However, it must be noted that the radical feminist theory has some criticism because majority of research in this area validated the theory using interviews only with women who experienced violence and, neglected the voice of men (LaFlame, 2009, Dutton, 2006).

Table 1 below summarizes explanations/channels of these theories for the IPV. As you will see, the overall impact of labor market factors, that are important determinants of women's absolute or relative power in a household, is ambiguous and depends particularly on the dominating role of intra-household bargaining model.

This paper has three contributions to the literature. Firstly, it will contribute on the literature about household bargaining model and relative resource theory by testing these in a developing country namely Turkey, a country and context in which IPV has rarely been investigated.

Table 1: Theories on the reasons of IPV

FACTORS RELATED WITH LABOR MARKET	**Employment (opportunity)** of women compared to men	⇒ *intra-household bargaining model (-)* ⇒ *relative resource theory (+)* ⇒ *model of economic exclusion and male peer support (+)* ⇒ *theory of exposure reduction (-)* ⇒ *theory of male backlash (+)* ⇒ *extraction effect hypothesis (+)*
	Income Gap (when income of women is greater than income of men)	⇒ *intra-household bargaining model (-)* ⇒ *relative resource theory (+)* ⇒ *theory of male backlash (+)* ⇒ *extraction effect hypothesis (+)*
	Education Gap (when income of women is greater than income of men)	⇒ *intra-household bargaining model (-)* ⇒ *relative resource theory (+)*
CULTURAL FACTORS	**Patriarchy**	⇒ *theory of communitarian justice and cultural acceptance (+)* ⇒ *radical feminist theory (+)*
	Childhood	⇒ *cycle of violence theory (+)* ⇒ *social learning theory (+)*
BIOLOGICAL & HEALTH FACTORS	**Mental Disorder**	⇒ *psychopathological explanation of violence (+)*
	Biology (of men)	⇒ *Evolutionary perspective (+)*

Second, we emphasize and test associations between women's economic status, both in absolute terms and relative to their spouses, using a very rich micro survey. Thus, we are able to provide the role of women empowerment not only on physical but also on emotional, economic, psychological and sexual abuse/violence controlling for individual factors, marriage characteristics, province-level fixed effects together with other relevant explanatory variables such marriage characteristics, violence experience of partner's mothers, indicator variable for women experienced sexual abuse during childhood and husband's experience of violence during childhood. Thirdly, and more importantly, we provide evidence whether the effect of women's superior status on IPV amplified or diminished by marriage characteristics. Since data sources on IPV rarely include information about marriage details, this is an important contribution to the literature.

3. Data and Methodology

Two waves (2008 and 2014) of National Survey on Domestic Violence against Women in Turkey (DVW; hereafter) are used in the empirical analysis of this study. The surveys have been conducted by the Institute of Population Studies at the Hacettepe University with the support of Turkish Statistical Institute (TURKSTAT). Target sample, which is a weighted, stratified and multi-layered cluster sample, is selected from all provinces in Turkey with a rural-urban division. It is collected through face-to-face interviews with women aged 15 to 59. The survey does not have a panel structure therefore combination of two waves gives us a pooled cross-sectional data. During the data collection, attention is paid to the ethical and safety guidelines suggested by the World Health Organization (WHO) in every phase of the DVW such as education of the interviewers, introducing the survey to household and rules to conduct the survey with women which resulted in an over 80 percent of response rate by households in 2014. Moreover, unbiased random selection of one woman in each household is done by the Kish method (Kish, 1949) and the refusal rate to complete questionnaire is 4.4 percent in 2014.

Using this rich data set, this study analyses women's probability of experiencing abuse/violence through a binary response model. We use five binary dependent variables which measure different types of IPV namely emotional abuse, economic abuse, psychological abuse, physical violence and sexual violence. Our main explanatory variable is related with labor market outcomes of spouses, differences between partners in terms of education and income, and marriage characteristics. We also control for demographic factors and other IPV relevant potential covariates derived from the literature. Moreover, province-level fixed effects are included in order to control for time independent province-specific factors and time-fixed effect is used to see if there is any province-invariant change in IPV between 2008 and 2014.

One must still note that the coefficients for the variables related with women such as their labor market status suffer from the endogeneity problem. In other words, we would

never be sure about the direction of causality. In other words, although we find the association between labor market outcomes and IPV indicators, we cannot be sure if women who experience violence do not work actively or those who do not work experience the violence at a higher level. Moreover, although we include various factors into our regression models, we might still have the omitted variables bias problem. Therefore, coefficients presented in the next section must be interpreted as only correlations or associations rather than causations. Detailed definitions of both dependent and independent variables and their descriptive statistics are provided in the Appendix.

4. Empirical Findings

4.1. The Role of Women's and Partner's Absolute Status on IPV

Factors associated with the five different violence categories are presented in this subsection. Table 2 presents the results for the model where each column presents the marginal effects of Probit regression for different IPV type.

On the one hand, we find that absolute status of women which are measured by their *education level, labor market status* and *homeownership* particularly decrease the probability of experiencing *physical and psychological violence* from their partners. Firstly, higher levels of *education* are negatively correlated with all types of abuse/violence. The largest effect is on the physical violence where we observe that women with a diploma above high school have 14.5 percent lower probability to experience physical violence compared to those without a diploma. Another important variable about absolute status of women is their *labor market status*. Our data have information about whether women work or not. In addition, we do also know if the employed women work in formal or informal jobs. The latter information is also signaling about the quality of jobs and employment benefits. One can also assume that those who work in the informal sector have lower education levels, lower wages and, absolutely, no social security benefits and health insurance. In agreement with the extraction effect hypothesis, we found that women who do not work have lower probability to experience psychological and physical violence from their partners. However, they also have about 6 percent higher probability to be economically abused which could be either through preventing them to work or refusing to give money. Comparing those who work, we observe that women in informal jobs, thus with lower absolute status, have higher probability to experience emotional and economic abuse. Finally, women with *homeownership* have also lower probability of experiencing psychological and physical violence.

Table 2: IPV Against Women in Turkey (marginal fixed effects from Probit regressions)

	Emotional Abuse	Economic Abuse	Psychological Abuse	Physical Violence	Sexual Violence
Women's Absolute Status:					
Education Level of Women (Reference category= No diploma)					
- Below high school diploma	-.038***	.020*	-0.004	-.034**	-.020*
- High school	-.062***	0.028	0.001	-.080***	-.030‡
- Above high school	-.132***	-.078***	-.067**	-.145***	-.060**
Labour Market Activity Status (Reference category= Formal emp.)					
- Informal employment	.019*	.066***	-.007	0.001	.000
- Not actively employed	.009	.057***	-.022*	-.031*	-.019
Homeownership (Reference category= No)					
- By herself	-.015	-0.019	-.025‡	-.038**	-.012
- Shared ownership	-.001	0.001	-.031*	-.034**	-.018
Partner's Absolute Status:					
Education Level of Husband (Reference category= No diploma)					
- Below high school	.032	-.003	-.002	-0.01	.000
- High school	.014	-0.025	-.017	-.055*	-.036**
- Above high school	.013	-.072***	-.044	-.085***	-0.028
Labour Market Activity Status (Reference category= Formal emp.)					
- Informal employment	.021*	0.01	.023*	.044***	.025**
- Not actively employed	.040***	.042***	.047***	.040***	.030***
Marriage Factors:					
Marriage is not arranged	-.027***	-.015*	-.049***	-.023*	-.035***
Paid bride money	-.003	.007	-.021*	-.016	-.004
Sharing the house with others	-0.01	-.004	-.022**	-.035***	-0.01
Blood relationship with partner	-.007	-.005	-.037***	-0.014	-.007

Table 2 (Cont.):

	Emotional Abuse	Economic Abuse	Psychological Abuse	Physical Violence	Sexual Violence
Childhood Experiences of Partners:					
Women's mother experienced physical violence from her partner	.015*	.067***	.129***	.126***	.064***
Husband's mother experienced physical violence from her partner	.037**	.050***	.128***	.140***	.063***
Women experienced sexual abuse during childhood	.059**	.111***	.132***	.145***	.111***
Husband faced violence from his parents	.040***	.096***	.161***	.129***	.075***
Demographic Factors:					
Age	-.003***	-.002***	.001*	.003***	.001***
Age of marriage	-0.001	-.003*	-.007***	-.013***	-.006***
Kids (aged 6-14)	.000	.008**	.008*	.015***	.004*
Health Factors:					
Frequency of Alcohol Use	.015***	.052***	.074***	.063***	.036***
Spatial and Time Factors:					
Urban	-.001	.112***	.030*	.020‡	.015
Province-level fixed effects	YES	YES	YES	YES	YES
Year fixed effects	-.034**	.021‡	-.026‡	-.047***	-.044***
# of Obs	13,002	13,065	13,105	13,108	13,046
Pseudo R2	0.0589	0.0726	0.1155	0.1544	0.1451

Notes: ‡p-value<.1, *p-value<.05, **p-value<.01, ***p-value<.001. Standard errors are clustered at the province level.

On the other hand, in regards to *absolute status of husbands*, we find that although education level particularly above high school level decreases the IPV, we do also find that partners who are either unemployed or informally employed have higher probability to use all sorts of violence against their wives. This might also reflect the poverty and economic stress levels of people as informal jobs on average are having worse conditions both in terms of pay and work conditions in Turkey (Kayaoglu, 2020). Therefore, our findings show that the theory of male backlash and the model of economic exclusion and male peer support are validated in the Turkish setting however as a contribution to these existing theories we do also show that it is not only the employment but actually the quality of employment that can matter to decrease the IPV.

In regards to *the marriage factors* which might also reflect the role of cultural settings, we see women have lower probability of facing different kinds of IPV if they are not placed in an arranged marriage. Moreover, contrary to the theory of communitarian justice and cultural acceptance and radical feminist theory, we find that in marriages where *bride money is paid* or there is *blood relationship with partner* that could be linked to patriarchy decreases the probability of experiencing psychological violence. Moreover, as expected, sharing house with other relatives, mostly with parents, decreases the likelihood of physical violence. Furthermore, the findings confirm the cycle of violence theory and social learning theory, too. As a reminder, these theories suggest that maltreatment during childhood increases the probability of experiencing or engaging violence in adulthood. Our results strongly confirm this theory. We found that childhood experiences of both women and their husbands have a solid association with all types of violence and abuse even when we consider other factors. In almost all cases, their coefficients do not only have the higher levels of statistical significance but also economic significance too. Thus, we can argue that family environments do have special importance in breaking the cycle of IPV in Turkey.

4.2. The Role of Relative Status of Women and Marriage Characteristics

Although the findings in the previous subsection confirms the role of several theories suggested in the literature, we were not able to test the household bargaining model and relative resource theory appropriately as it requires us to understand the role of relative status of women on IPV. Therefore, in this subsection, we repeated our regression models by incorporating independent variables that are constructed to measure the relative bargaining power of women in the household, namely income and education differences between partners. In addition, we have interacted these relative status variables with marriage characteristics to see if the effect of women's superior status amplified or lessened by marriage indicators. For example, a woman's superior status in the household might result in lower level of male backlash in arranged marriages if women in those marriages have more protective partners. Or one might expect to have more violence for women with superior status if partners are patriarchal.

Results presented in Table 3 shows that income gap between partners matters for the prevalence of economic, physical and sexual violence in Turkey. We observe that women who are the only income earners in the household, in other words those who are the only bread winners, have higher probability of experiencing economic, physical and sexual IPV compared to women who have either similar income with their partners or only their husbands are bread winners. Thus, intra-household bargaining model and the theory of exposure reduction are not validated in the Turkish setting. We rather see the approval of relative resource theory, extraction effect hypothesis and the theory of male backlash. In panel (b) of Table 3, we observe that arranged marriage decreases the

emotional and economic violence level that are faced by women with superior income status, namely bread winners in the households. However, *arranged marriage* amplifies sexual violence faced by women with superior income status.

Table 3: The Role of Marriage Related Factors and Income Gap in Explaining the Violence Against Women (marginal fixed effects of Probit regressions)

(a) Income Gap

	Emotional Abuse	Economic Abuse	Psychological Abuse	Physical Violence	Sexual Violence
Income Gap					
(Ref. Category= Only woman has income)					
Woman earns more than partner	-.003	-.099**	.028	.012	.018
Almost same income	-.016	-.182***	-0.03	-.074***	-.067***
Woman earns less than partner	-.016	-.070***	.016	-.028	-.014
Only partner has income	-.025	-.112***	-.008	-.092***	-.034**
Other control variables	√	√	√	√	√
Province fixed effects	√	√	√	√	√
Year fixed effect	√	√	√	√	√
# of Obs.	13,002	13,065	13,105	13,108	13,046
Pseudo R2	0.0591	0.0755	0.1158	0.1564	0.1468

Notes: p-value*<0.10, p-value**<.05, p-value***<.01. Standard errors are clustered by province. All the control variables that are included in the regression specification in Table 2 are included.

Table 3 (Cont.):

(b) Income Gap and Marriage Indicators

	Emotional Abuse	Economic Abuse	Psychological Abuse	Physical Violence	Sexual Violence
Income Gap					
(Ref. Category= Only woman has income)					
Woman earns more than partner	-.004	-.098**	.033	0.016	.017
Almost same income	-.028	-.197***	-.019	-.073***	-.055**
Woman earns less than partner	-.039	-.097***	.034	-.027	-.007
Only partner has income	-.057	-.144***	-.017	-.092***	-.004
Marriage Factors					
Marriage is not arranged	-.101***	-.124***	-.043	-.041	.016
Paid bride money	-.01	.032	-.036	-.046	.033
Sharing house with others	-.00	-.065	.031	.008	-.035
Blood relationship with partner	-.073*	.102*	.05	.005	.051
Marriage Factors and Income Gap					
Income Gap X Marriage is not arranged	.016**	.023**	-.001	.004	-.011*
Income Gap X Paid Bride Money	.001	-.005	.003	.006	-.008
Income Gap X Sharing House with Others	-.002	.013	-.011	-.009	.005
Income Gap X Blood Relationship	.014	-.022*	-.018	-.004	-.012
Other control variables	√	√	√	√	√
Province fixed effects	√	√	√	√	√
Year fixed effect	√	√	√	√	√
# of Obs.	13,002	13,065	13,105	13,108	13,046
Pseudo R2	0.0596	0.0764	0.116	0.1565	0.1473

Notes: p-value*<0.10, p-value**<.05, p-value***<.01. Standard errors are clustered by province. All the control variables that are included in the regression specification in Table 2 are included.

Moreover, we can see from panel (a) of Table 4 that women have higher likelihood of experiencing physical violence and economic abuse if they have superior status than their partners in terms of education. Thus, we can argue that household bargaining model is also not confirmed in regards to the prevalence of physical violence in Turkey. One should also note that higher education level of men compared to women decreases the likelihood of experiencing all kinds of abuse and violence even when we consider all other factors in the model. In sum, our findings suggest that it is the relative resource theory that is confirmed in the Turkish context rather that intra- household bargaining model because women with higher incomes and education levels compared to their partners have a higher probability of experiencing economic, physical and sexual violence in Turkey. Interestingly, panel (b) of Table 4 presents that arranged marriage decreases the level of economic abuse, psychological abuse and physical violence that are faced by women with superior educational status than their husbands.

Table 4: The Role of Marriage Related Factors and Education Gap in Explaining IPV (marginal fixed effects of Probit regressions)

(a) Education Gap

	Emotional Abuse	Economic Abuse	Psychological Abuse	Physical Violence	Sexual Violence
Education gap					
(Reference Category: No gap)					
Woman has higher education than man	0.006	.036**	0.019	.056***	0.017
Man has higher education than woman	-.014*	-.022**	-.027***	-.039***	-.020***
Other control variables	√	√	√	√	√
Province fixed effects	√	√	√	√	√
Year fixed effect	√	√	√	√	√
# of Obs.	13,002	13,065	13,105	13,108	13,046
Pseudo R2	0.0585	0.0719	0.1155	0.1542	0.1441

Notes: p-value*<0.10, p-value**<.05, p-value***<.01. Standard errors are clustered by province. All the control variables (except partner's education level) that are included in the regression specification in Table 2 are included.

Table 4 (Cont.):

(b) Education Gap and Marriage Indicators

	Emotional Abuse	Economic Abuse	Psychological Abuse	Physical Violence	Sexual Violence
Education Gap					
(Ref. Category= No gap)					
Woman has higher education than man	.016	.061***	.044**	.081***	.019
Man has higher education than woman	-.021*	-.035**	-.046***	-.058***	-.026***
Marriage Factors					
Marriage is not arranged	-.066***	-.091**	-.107***	-.092***	-.049*
Paid bride money	-.016	-.023	-.064**	-.056	-.057*
Sharing house with others	.004	.009	-.017	-.015	.049**
Blood relationship with partner	-.004	.043	-.031	-0.03	-.013
Marriage Factors and Education Gap					
Education Gap X Marriage is not arranged	.017	.033**	.025*	.029**	.006
Education Gap X Paid Bride Money	.006	.013	.017	.017	.023*
Education Gap X Sharing House w. others	-.006	-.006	-.002	-.009	-.026**
Education Gap X Blood Relationship	-.005	-.02	-.003	-.006	.002
Other control variables	√	√	√	√	√
Province fixed effects	√	√	√	√	√
Year fixed effect	√	√	√	√	√
# of Obs.	13,002	13,065	13,105	13,108	13,046
Pseudo R2	0.0588	0.0725	0.1158	0.1546	0.1452

Notes: p-value*<0.10, p-value**<.05, p-value***<.01. Standard errors are clustered by province. All the control variables that are included in the regression specification in Table 2 are included

5. Conclusion

Given the recent surge in the number of femicides in Turkey and news about domestic violence rearing their heads up in various media outlets, this study aimed to understand the role of absolute and relative status of women in household on various types of abuse and violence against women. This paper also analyses the impact of marriage indicators on the role of relative status of women for IPV. In this respect, two waves of National

Survey on Domestic Violence against Women in Turkey were analyzed for ever-married women and theories about domestic violence were tested in the Turkish case.

Higher education level of women is found to decrease the prevalence of all IPV categories. Although homeownership decreases the probability of experiencing psychological and physical violence, employment as another absolute status indicator on the other hand has an ambiguous effect where its direction is determined by the quality of jobs women work. In line with the extraction effect hypothesis, unemployed women have lower probability to experience psychological or physical violence whereas women in informal jobs have higher likelihood of experiencing emotional and economic abuse. In regards to absolute status of husbands, we find that although education level particularly above high school level decreases the IPV, we do also find that partners who are either unemployed or informally employed have higher probability to use all sorts of violence against their wives. Therefore, our findings show that the theory of male backlash and the model of economic exclusion and male peer support are validated. Furthermore, if women have superior status in the household in terms of income and education, then their likelihood of experiencing economic abuse, physical violence and sexual violence increases. Thus, Turkish setting provides us the approval of relative resource theory rather than intra-household bargaining model. And, marriage characteristics is found to have impact on the role of superior status of women on IPV.

To sum up, findings of the paper mainly suggested that decreasing the level of domestic violence in Turkey cannot be achieved through policies or programs focusing only on women empowerment and neglecting men. IPV can rather be eliminated by the programs focusing on decreasing gender inequalities both in education and in the labor market across the country. We also provided evidence that marriage characteristics matter for the prevalence of IPV in Turkey and on the effect of gender inequalities in education and income on IPV. Moreover, given the importance of childhood experiences, policy reforms about the awareness of child's rights and improving family relations are also needed to stop the vicious cycle of domestic violence across generations.

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Appendix

A1. Dependent Variables

In the surveys, women are asked to report if they had experienced various types of abuse and violence by their partners at any point in time after the age of 15. Given their answers, five dependent variables are constructed to measure different types of abuse/violence experience.

1- ***Emotional Abuse:*** Nine different forms of emotional abuse are covered in the DVW including if partner (i) tries to keep her away from her friends, (ii) prevent contact with her family, (iii) insists on knowing where she is, (iv) ignores her and treats her with little attention, (v) gets angry if she speaks with another man, (vi) suspicious that she is unfaithful, (vii) requires her to seek his approval before seeking medical attention, (viii) towers over her clothing decisions, and (ix) violates her privacy on social networking platforms like Facebook. A binary variable of experiencing emotional abuse is created if the respondent answered "yes" to any of the emotional abuse types listed above.

2- ***Economic Abuse:*** This is a binary variable which is equal to 1 if respondents argued to have experienced at least one of the economic abuse types in the DVW which are (i) prevention to work, (ii) refusal to give money by partner, and (iii) taking all the income of women without permission. It is 0 if women report no experience of any of these economic abuse types.

3- ***Psychological Abuse:*** This is also a dummy variable which equals 0 if women have not experienced any type of psychological abuse and, it is 1 if their partner either (i) insults, (ii) belittles/humiliates, (iii) scares/intimidates on purpose and, (iv) threatens to hurt.

4- ***Physical Violence:*** A set of six variables are used to construct this binary variable which is 0 if there is no experience of physical violence and, 1 if women depending on whether the partner (i) slaps, (ii) pushes/shoves/pulls her hair, (iii) punches, (iv) kicks/drags/beats, (v) chokes/burns or (vi) threatens with weapon/knife.

5- ***Sexual Violence:*** This variable is also constructed as a binary variable out of answers given to questions about sexual violence. Thus, it is equal to 0 if women reported no record of sexual violence by their intimate partners and 1 if women have had (i) forced sexual intercourse or (ii) due to fear or (iii) been forced to do humiliating things while having sex.

A2. Independent Variables

1)   Absolute Status of Women:

-        Education Level of Women: This is a categorical variable where the category 1 refers to no diploma, 2 refers to below high school diploma, 3 refers to high school diploma and 4 stands for above high school diploma.

-        Labour Market Activity Status of women: This is also a categorical variable where the category 1 stands for formal employment, 2 for informal employment and 3 for women who is not actively employed. Informal employed people are those who work without social security registration or formal contract.

-        Homeownership: A categorical variable which equals 1 if the woman does not own a house, 2 if women owns a house by herself and, 3 if she shares the ownership with someone else.

2)   Absolute Status of Men:

-        Education Level of Husband: This is a categorical variable where the first category stands for no diploma, category 2 refers to below high school diploma, 3 for high school diploma and the last category for those with a diploma above high school.

-        Labor Market Activity Status: This is a categorical variable where the category 1 refers to formal employment, 2 refers to informal employment and the category 3 includes those who are not actively employed.

3)   Education and Income Gap between Partners:

- Educational gap: A categorical variable which is equal to 1 if husband has higher education than his partner, 2 if no difference in education, and 3 if women outpaces her partner with respect to education. Educational levels are calculated given the last diploma women and their partners.

- Income gap: This an ordinal categorical variable from 1 to 5 where the category 1 stands for the case of only woman earning the income in the household, 2 is defining the category of women earning more than her partner, 3 is for the case of both woman and partner earning the same income, 4 is used for the case where woman earning less than the partner and lastly the category 5 stands for the cases where only partner earning the income in the household.

4)   Cultural Factors:

-        Marriage is not arranged: This is a dummy variable which is equal to 1 if the marriage is not arranged and 0 otherwise.

-        Bride Price: This is a dummy variable that is equal to 1 if a price was paid to women's parents before the marriage and 0 otherwise.

- Sharing the house with others: This is also a dummy variable which is equal to 1 if couples share their house with others such as parents and, 0 if they live alone.
- Blood relation with partner: This is a binary variable that is equal to 1 if partners have blood relation with each other and, 0 if otherwise.

5) Childhood Factors:
- Women's mother experienced physical violence from her partner: This is a binary variable that is equal to 1 if women's mother experienced physical violence in her relationship and 0 otherwise.
- Husband's mother experienced physical violence from her partner: This is a categorical variable where 1 is equal to "no" and 2 refers to "yes" whereas the category 3 is for an answer of "don't know".
- Women experienced sexual abuse during childhood: This is a dummy variable which is equal to 1 if the respondent had experienced a sexual abuse during her childhood (before age 15) and 0 if otherwise.
- Husband faced violence from his parents: This is a categorical variable where 1 equals to "no" and 2 refers to "yes" whereas the category 3 is for an answer of "don't know".

6) Demographic Factors:
- Age: This is a continuous variable denoting the age of the respondent.
- Age of marriage: This is a continuous variable of respondent's age at marriage.
- Number of kids aged 6-14: Total number of kids in the household who are between age 6 and 14.

7) Health Factors:
- Frequency of Alcohol Use: This is a categorical variable denoting the level of alcohol usage by partner. It takes values from 1 to 5 where 1 refers to the case of "no alcohol use" and 5 stands for "almost every day."

8) Spatial Factors
- Urban: Dummy variable which is equal to 1 if the respondent lives in urban area and 0 otherwise.
- Province-level fixed effects: There are dummy variables for each province in Turkey.

A3. Descriptive Statistics

Table A1. Descriptive Statistics

	Mean	Std. Dev.	Min	Max
Type of Violence/Abuse				
Emotional Abuse	.83	.37	0	1
Economic Abuse	.28	.45	0	1
Psychological Abuse	.44	.50	0	1
Physical Violence	.39	.49	0	1
Sexual Violence	.14	.35	0	1
Demographic Factors:				
Age	37.96	10.18	16	59
Age of marriage	19.93	3.98	7	48
Kids (aged 6-14)	.90	1.26	0	22
Economic Factors:				
Education Level of Women				
(Reference category= No diploma)				
-Below high school	.59	.49	0	1
-High school	.13	.34	0	1
-Above high school	.06	.23	0	1
Labour Market Activity Status				
(Reference category= Formal employment)				
- Informal employment	.17	.38	0	1
- Not actively employed	.72	.45	0	1
Homeownership				
(Reference category= No ownership)				
- By herself	.10	.30	0	1
- Shared by others	.09	.28	0	1
Women's Relative Status:				
Income Gap	4.623	.859	1	5
Education Gap	2.316	.586	1	3
Cultural Factors:				
Marriage is not arranged	.41	.49	0	1
Bride Price	.59	.49	0	1
Sharing the house with others	.45	.50	0	1
Marriage with relatives	.22	.41	0	1
Partner Characteristics:				
Education Level of Men				
(Reference category= No diploma)				
-Below high school	.62	.49	0	1
-High school	.22	.41	0	1
-Above high school	.12	.32	0	1
Labour Market Activity Status				
(Reference category= Formal employment)				
-Informal employment	.17	.38	0	1
-Not actively employed	.16	.37	0	1
Frequency of Alcohol Use	1.43	.99	1	5
Childhood Experiences:				
Women's mother experienced physical violence from her partner	.28	.45	0	1
Husband's mother experienced physical violence from her partner	.27	.44	0	1
Women experienced sexual abuse during childhood	.06	.24	0	1
Husband faced violence from his parents	.23	.42	0	1
Spatial and Time Factors:				
Urban	.73	.44	0	1
Dummy for the year 2014	.36	.48	0	1

Source: Author's own calculations from DVW 2008 and DVW 2014.