

Intimate Partner Violence

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Abstract

Intimate partner violence (IPV) is a widespread global phenomenon with major costs. It presents several empirical challenges to researchers, including data

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quality issues, simultaneous and interrelated risk factors, and nuanced responses to policy that depend on circumstances within the household, neighborhood, and culture. This has left an opening for economists to complement existing research on the topic, enough to merit a thorough review of this literature. This chapter reviews economists' work on studying the theories, causes, and policies to reduce intimate partner violence. It examines theories of household bargaining, expressive violence, instrumental violence, male backlash, exposure reduction, and cultural norms. It then considers the research on how economic factors, including income shocks, transfer programs, gendered labor demand, employment status, and human capital investments influence IPV. Finally, there is a discussion of research on the efficacy of specific policy interventions, including legal and law enforcement policies, unilateral divorce, women's property ownership and inheritance rights, sanctuary policies, alcohol regulation, shelter services, and interventions implemented via randomized controlled trials.

Introduction

Intimate partner violence (IPV) is a widespread global phenomenon with major costs. In the USA, 1 in 3 people has experienced IPV such as physical violence, contact sexual violence, or stalking during their lifetime (Smith et al. 2018). Globally, the lifetime prevalence of physical or sexual IPV ranges from 20% to 33% depending on the region (WHO 2021). The prevalence of IPV is estimated as 17% among pregnant women in northern England (Johnson et al. 2003).

Based on the 2010 National Intimate Partner and Sexual Violence Survey (NISVS), in the USA, the lifetime prevalence of rape by an intimate partner is estimated to be 8.8% for women and 0.5% for men; the lifetime prevalence of other sexual violence by an intimate partner is estimated to be 15.8% for women and 9.5% for men; and the lifetime prevalence of severe physical violence (such as being kicked or beaten, being burned on purpose, or being hit with something hard) by an intimate partner is estimated to be 22.3% for women and 14.0% for men (Breiding et al. 2014). In a multi-country study by the World Health Organization (WHO), among women who had ever been in a relationship, 13 to 61% have experienced physical violence by an intimate partner; 4 to 49% have experienced severe physical violence; 6 to 59% have experienced sexual violence; and 20 to 75% have experienced emotional abuse (WHO & Pan American Health Organization 2012).

Among US adults, the lifetime economic costs of IPV include \$2.1 trillion in medical services, \$1.3 trillion in forgone productivity from paid work, \$73 billion in criminal justice activities, and \$62 billion in other costs (Peterson et al. 2018). The WHO (2013) also estimate some serious negative associations with violent relationships. Women with violent partners are more likely to contract HIV and other sexually transmitted infections. Women in a violent relationship are also more likely to have unintended pregnancies due to sexual violence or sabotage of birth control, or an inability to use birth control. Women who experience IPV are also at a higher

risk of depression, suicide attempts, and harmful alcohol use. In addition to the health consequences mentioned above, IPV also causes physical injuries such as musculoskeletal injuries and genital injuries. Severe IPV can also result in the death of the victim. Among violent deaths in the USA, half of female decedents were killed by a current or past intimate partner (Ertl et al. 2019). Globally, 38% of all female murders are committed by intimate partners (WHO 2021).

Women who experienced IPV are 16% more likely to have a miscarriage and 41% more likely to have a pre-term birth (WHO 2013). Intimate partner violence during pregnancy can also lead to a higher chance of low birth weight and fetal death (Aizer 2011). Witnessing IPV between parents has more impacts on children later in life. A girl (boy) growing up with a battered mother is more likely to be a victim (perpetrator) in adulthood (Bowlus and Seitz 2006; Renner and Slack 2006). Children who are exposed to domestic violence at home negatively affect their peers at school through bullying and class disruption (Carrell and Hoekstra 2010).

IPV is a broad topic; this chapter primarily considers adult male perpetrators and adult female victims, though there is a high prevalence of IPV against men (Smith et al. 2018), in relationships other than male-female pairs (Breiding et al. 2013), and teen dating violence (Basile et al. 2020). This chapter first reviews economic and criminological theories of IPV, tests of those theories, and measurements of IPV. Then it considers research on how economic factors affect IPV. Finally, there is a discussion of the effect of different public policies on IPV.

Testing the Theories of IPV

Risk factors associated with experiencing IPV include low levels of education, witnessing violence between parents during childhood, sexual or physical abuse during childhood, and acceptance of IPV. In addition, the risk factors associated with both experiencing IPV and perpetration include economic stress, conflict or dissatisfaction in the relationship, male dominance in the family, men having multiple partners, and women having higher levels of education than their partners (WHO & Pan American Health Organization 2012).

While knowing these risk factors is useful, it does not tell us what causes IPV. Economists and other social scientists wish to identify causal channels for IPV so that policy makers can reduce the level of IPV. This section discusses household bargaining theory, expressive violence, instrumental violence, male backlash, exposure reduction, and cultural factors.

Household Bargaining and Expressive Violence

One of the most important economic theories on IPV is based in household bargaining theory. In these models, the couple plays a cooperative bargaining game, negotiating over the allocation of household resources with well-defined threat points. Often, the threat point is defined as the end of the relationship, i.e.,

divorce (Manser and Brown 1980; McElroy and Horney 1981), but the threat point could also be a noncooperative equilibrium prior to divorce (Lundberg and Pollak 1993).

Related is Grossbard's (2014) price theory of marriage markets, which models relationships as a market for household labor. This model emphasizes aggregate influences on threat points, including sex ratios. The relatively scarce gender has more bargaining power, and this influences the allocation of household resources, including labor decisions (Grossbard and Amuedo-Dorantes 2008) and inflicting IPV (La Mattina 2017).

Scholars often add IPV to the household bargaining framework using the theory of expressive violence, which views IPV as a "good" for the abuser. In essence, he prefers violence, at least in the short term, to relieve frustration. The abuser's preference towards violence, and the victim's tolerance of the violence, may be formed by witnessing or experiencing family violence as a child (Bowlus and Seitz 2006; Pollak 2004). Applying household bargaining theory, violence is simply an act which benefits the abuser and is costly to the victim; thus, the household bargains over the "optimal" level of violence, with monetary transfers compensating the abused. Bargaining determines the "price" of violence, which reflects both the marginal benefit of violence for the abuser and the marginal cost of violence for the victim. The theory predicts that relative bargaining power within the household changes the price of violence. For instance, if the victim's outside option improves because the cost of leaving the relationship goes down, her price of violence will increase, and thus the abuser will "purchase" less violence by the law of demand.

The abuser's utility of violence is influenced by stressors, which can fluctuate over time. For instance, most of the time an abuser might have a negative utility of violence, and then some event or situation precipitates a strong temporary preference for violence. One example is economic hardship, which can affect bargaining but also family stress (Lucero et al. 2016). Using high-frequency IPV data such as the National Incident-Based Reporting System (NIBRS) in the USA, researchers can identify more temporary effects. Card and Dahl (2011) find that IPV increases shortly after the local professional football team unexpectedly loses. Henke and Hsu (2020) find that IPV increases on hotter days.

Household bargaining theory produces useful empirical predictions about IPV. However, taken literally, there are issues with its normative implications. For instance, it implies that the IPV which occurs in a household maximizes the household's total surplus. If it did not, then the victim's price of violence would exceed the abuser's willingness to pay for it. Given the steep individual costs of IPV as discussed in the introduction and the questionable benefits of violence as stress relief, it is easy to argue that the costs generally exceed the benefits instead.

One point in favor of the argument that bargained IPV maximizes household surplus is that an abused woman often chooses to remain in the relationship, implying that her net benefit of the relationship exceeds her outside option. When surveyed, abused women provide many reasons for staying with their partners, including a lack of alternative means of economic support, concern for their children, fear of losing custody of children associated with divorce, fear of retaliation, lack of

support from family and friends, stigma associated with divorce, and the hope that their partners will change (Heise et al. 1999). Many (though not all) of these reasons imply a rational choice to stay in an abusive relationship because the outside option is even worse.

Yet there remain several issues with this line of argument. First, women are, in fact, more likely to end a violent relationship than a nonviolent one (Farmer and Tiefenthaler 2003). Second, it is only a partial argument; a woman staying in a violent relationship only implies that the relationship produces a surplus, not that the violence itself increases household surplus, or relatedly that the negotiated price of violence reflects its true marginal value and cost. Third, while many reasons women stay in violent relationships are rooted in a poor outside option, some of the stated reasons imply that the outside option is better; the woman stays either because she has convinced herself it is not (the hope that the man will change) or the abuser endogenously uses violence to suppress the outside option (retaliation). This latter reason speaks to the more general point that modeling an abusive relationship using a purely cooperative bargaining model by its nature cannot account for the oftencoercive nature of violence.

Instrumental Violence

It is arguably more intuitive to think of a violent relationship as a non-cooperative game where total household surplus is not necessarily maximized (Farmer and Tiefenthaler 1997). In such a model, violence may sometimes be expressive, but it can also be "instrumental" – that is to say, violence is a means to control household resources (Eswaran and Malhotra 2011; Tauchen et al. 1991). Instrumental violence can be employed to control a variety of household decisions – how to spend money, who contributes household labor, how the wife spends her time – and the husband can use it as a tool even if he does not enjoy violence ceteris paribus. In India, violence is also used to extort the wife's family into providing more dowry payments (Bloch and Rao 2002).

In contrast with expressive violence, the theory of instrumental violence views IPV as a form of rent-seeking behavior which reduces the total surplus of the relationship to improve the position of the abuser. Another prediction which contrasts with household bargaining theory is that violence may not be monotonically decreasing in the woman's bargaining power. If a woman has a good outside option, the man is unable to use violence to control her (if he is violent, she will leave). If she has a bad outside option, the man already controls the household resources and does not need to use violence to exert more control. If her outside option is somewhere in between, however, she has enough bargaining power to argue about the distribution of household resources and labor, but perhaps not enough to leave after an incident of abuse. This is when the abuser has both the motive and the opportunity to successfully employ instrumental violence.

This means that economic empowerment might help women who are already somewhat powerful but could hurt women who don't have much power. Bulte and

Lensink (2019) find one example in Vietnam. Lower-income women were recruited to undergo entrepreneurial training in a field experiment. The women who took up the training were more likely to be abused by their husbands. Intriguingly, they were not more likely to directly admit to abuse – they only implicitly revealed their abuse in a "list experiment." The control group of the list experiment is presented with a number of innocuous yes or no questions, and they answer how many are true. The treatment group is presented with the same questions, plus a question on whether they are abused by their partner. Thus, the difference in the number of "yes" responses represents the true level of abuse without any respondent directly admitting to abuse, and this measure is what increased after the entrepreneurial training.

Another strategic concern for instrumental abusers is whether violence harms productivity. For instance, if an abuser controls the household's financial resources, then hurting his working wife – either gainfully employed or informally working for the family business – would reduce his own income. On the other hand, violence may not affect household labor productivity as severely, making lost productivity a lesser deterrent when the victim is a homemaker. Tur-Prats (2019) studies different family types (stem versus nuclear) in Spain, noting that a mother-in-law living in residence (stem) reduces the household labor burden on the wife and allows her to work, for instance, on a family farm. Using medieval inheritance laws as an instrument for family type, she finds that areas with historically more stem families currently experience less IPV.

Male Backlash

Male backlash is the emotional counterpart to the strategic theory of instrumental violence. It portrays a man who resents his female partner for taking on some of the traditionally male roles of a household. He then uses violence to reassert his dominance as the "man" of the household. The classic example is an unemployed man lashing out at his employed partner (Chin 2012). While the theorized motivations differ, it yields similar predictions to instrumental violence regarding employment arrangements and relative bargaining power within the household. For instance, an unemployed man may use violence to affirm his manhood, or perhaps he uses violence to control his partner's paycheck. Still, some forms of violence are suggestive of a pathological need for male dominance rather than a calculated attempt to control resources. Using survey data in the Dominican Republic, Bueno and Henderson (2017) find that a woman who makes more money than her husband is more likely to experience sexual IPV.

After a civil war, women in poor countries are more likely to enter the labor force because of increased labor demand. Using post-genocide data in Rwanda, Finnoff (2012) finds that employed women with unemployed husbands are more likely to experience sexual violence. Guarnieri and Rainer (2021) examine the differences in British and French colonial policy in post-WWI Cameroon which made it more and less likely for women to be employed respectively. They employ a regression discontinuity design and find that women in parts of Cameroon formerly under

British rule are more likely to be victims of IPV because they are more likely to be employed.

Both male backlash and instrumental violence theory predict an increase in violence as a woman becomes gainfully employed. However, there are some cases where instrumental violence can be isolated from male backlash by isolating a strategic motivation to extract resources. One set of examples is in the timing of transfers; if a couple fights more on the day they receive a transfer compared to other days, the primary explanation for the violence is to control the transfer. In the USA, IPV reports increase directly after Temporary Assistance for Needy Families (TANF) transfers (Hsu 2017), and changes in scheduled payments for the Supplemental Nutrition Assistance Program change the timing of domestic violence (Carr and Packham 2020). Another example of a rent extraction opportunity is a new bride's dowry. Menon (2020) exploits plausibly exogenous changes in gold prices to find that, when gold-based dowries increase in value, men's abuse towards their new brides increases.

Exposure Reduction

One theory of violent crime, including IPV, focuses on the opportunity for the crime to occur. Exposure reduction theory makes the straightforward prediction that IPV increases in the amount of time violent couples spend together. This is both a function of the number of violent couples (Dugan et al. 1999) and the amount of time the average violent couple spends together (Chin 2012). In rural India, women's labor force participation is driven by rainfall shocks and the rice-wheat dichotomy. In rice-growing regions, female labor demand is higher due to women's comparative advantage in weeding and transplanting. While in the wheat-growing regions, the female employment rate is lower. Using the interaction between the rice-wheat dichotomy and rainfall shocks as an instrument, Chin (2012) finds that female labor force participation decreases physical IPV through the channel of exposure reduction.

One natural experiment for this theory has been the COVID-19 pandemic, which in 2020 forced people to stay inside. The onset of the pandemic saw a significant increase in domestic violence (Leslie and Wilson 2020), associated specifically with individuals staying at home more often (Hsu and Henke 2021a, b).

Local and Cultural Factors

Another factor explaining violence is how acceptable it is considered, both by the household and by the community. Whether the household and the community find wife beating to be acceptable affects whether anyone will intervene and whether the batterer faces the prospect of someone who will leave. It may also affect the utility of instrumental violence. Cools and Kotsadam (2017) find that local attitudes towards violence affect whether employed women are beaten more, and that while total

resources do not protect women against violence, they do reduce their acceptance of violence.

Women in Europe who immigrated from countries with higher gender equality suffered less violence than those who immigrated from countries with lower gender equality (González and Rodríguez-Planas 2020). Yilmaz (2018) finds that men who wish to uphold traditional gender norms are more likely to beat their partners.

Cultural attitudes towards IPV are often rooted in old traditions. Alesina et al. (2021) examine violence against women in Africa and find that ethnic groups where women contributed relatively less to non-household production experience more violence against women today, and women in these groups find violence to be more acceptable. This is, however, difficult to separate from an instrumental violence theory where the man does not hurt his wife if her non-household productivity will sharply decline (Tur-Prats 2019). By contrast, Alesina et al. (2021) do find that women who reside with their husband's family experience and accept more IPV, but this is after controlling for the mechanism of these women likely working more outside of the household.

Changing cultural attitudes towards IPV is not necessarily easy or simple, but scholars have shown effects of cultural transmission through, for instance, television shows. Banerjee et al. (2019) set up a randomized controlled trial screening the show MTV Shuga in Nigeria, which featured a domestic violence subplot, and found that people who watched the screening tolerated IPV in fewer circumstances when surveyed. Cultures often change one household at a time. Once women do have more autonomy within a household in traditionally patriarchal Pakistan, IPV tends to decrease (Mavisakalyan and Rammohan 2021).

Issues with Measuring IPV

To obtain data on IPV, scholars often rely on either formal administrative data such as recorded police incidents coded as domestic violence or surveys which ask the respondent about IPV. Different surveys and datasets measure different kinds of IPV. Some surveys and police data differentiate between kinds of IPV (e.g., psychological, physical, sexual), while some do not. Most often, scholars will focus either on physical assault or an aggregation of all kinds of IPV.

Measuring IPV presents real challenges in either survey data or police data. Aside from potential data entry and compliance issues at the police department level, there are two key issues with police domestic violence data: systematic underreporting, and underreporting conditional on specific factors. Overall, 58% of IPV incidents in the 2019 National Crime Victimization Survey were reported to the police (Morgan and Truman 2020). Even if this underreporting does not change with different factors, it would attenuate any estimated effect of a policy or economic factor on IPV. In addition, underreporting conditional on incident-specific factors can bias estimates in any direction. Leon et al. (2021) conduct a violence-reporting experiment and find that the willingness to formally report a hypothetical incident of

domestic violence depends both on the nature of the violent vignette and the respondent's own characteristics.

These issues do not disappear for surveys, as the respondent's willingness to admit to violence could also be systematically attenuated and could depend on incident-specific factors as well. In fact, the way survey questions are phrased can affect how respondents answer. In the past two decades, there are more surveys asking about behavior-specific acts of violence committed by partners rather than asking whether the respondent has ever experienced violence or abuse; this is done to avoid a bias arising from women having different conceptions of what amounts to violence or abuse (WHO 2021).

Some studies attempt to overcome these challenges through novel survey strategies (Bulte and Lensink 2019), proxying for IPV using homicide data (Chin and Cunningham 2019; Miller and Segal 2019) or serious hospital visits (Aizer 2010), or using Bayesian techniques to model underreported survey data (Chin et al. 2017) to overcome underreporting issues, but overall, data limitations present a serious challenge to all research in this area.

Economic Factors

Scholars come to differing conclusions on the effect of economic empowerment on IPV depending on the location, the circumstances of the respondent, the type of empowerment, and also methodological differences. See Vyas and Watts (2009) for another review of the literature on economic empowerment.

Income and Economic Hardship

The effect of overall income on violence is nuanced and depends on who has the income. If an abused woman increases her income, her marginal utility of money decreases, and thus according to household bargaining theory her price of violence increases. In addition, she likely has a better outside option. From an instrumental violence perspective, though, a woman with more income presents a better opportunity to violently extract resources. If an abuser has more income, he has more money to "pay" for violence. Furthermore, a household with a more stable source of income, which is more resilient to macroeconomic shocks, faces fewer stressors which may lead to fighting.

It is common to use weather events as instruments for, e.g., income shocks in applied microeconomics research because variation in weather is essentially random. However, weather affects the dependent variable, in this case IPV, through many mediators which are correlated with one another, not just income (Mellon 2021). Thus, using weather as an instrument may not isolate the effect of the weather-based income shock but also include other factors associated with the weather, such as people being angry on a hot day. Some researchers avoid this issue by using weather as a proxy rather than an instrument. For instance, Epstein et al. (2020) find that

drought is associated with a higher incidence of IPV across sub-Saharan Africa. Abiona and Koppensteiner (2018) find that rainfall shocks increase IPV. The limitation of the proxy approach is that, while the aggregate effect of the weather shock is well identified, the research does not directly identify the effect of the income channel.

Another way to receive extra income is through remittances. Using survey data in the Punjab province of Pakistan in 2014, Mitra et al. (2021) study the impact of remittance income on women's acceptance of IPV. They find that women in households receiving remittances are less likely to tolerate IPV compared to those who don't have access to remittances. This effect is heterogeneous and depends on what precipitated the violence. Going outside without informing her husband, refusing to have sex, and burning the food are less likely to be acceptable reasons for IPV for women who receive remittances. However, these women still find some causes for violence acceptable, namely, arguing with her husband and neglecting her children.

Transfer Programs

Household income can also be affected by government transfer programs. The benefit of transfer programs is that variation in them is often plausibly exogenous, sometimes even administered via a randomized controlled trial, allowing researchers to estimate the effects of the programs. The goal of these programs is often poverty reduction, and they have nuanced effects on IPV. The effect can depend on the nature and location of the program, the type of violence, the time frame, education, and the recipient of the transfer. Some transfers are cash, and some are in kind (e.g., food vouchers). Some cash transfer programs are unconditional cash transfers (UCT), and some programs are conditional cash transfers (CCT) requiring the receiving household to meet criteria such as children's school enrollment/attendance, vaccinations, or visiting healthcare facilities if pregnant (Fiszbein and Norbert 2009).

Using a 6-month randomized UCT in Northern Ecuador, Hidrobo et al. (2016) find that receiving the UCT reduces the chances that women experience physical violence, sexual violence, and controlling behavior. The effect does not differ significantly across transfer modality among cash, food vouchers, or food transfers.

The effect of randomized cash transfers on IPV may depend on a woman's education and her education relative to her partner's. Hidrobo and Fernald (2013) find that a randomized rollout of cash transfers decreases psychological IPV (emotional violence and controlling behaviors by an intimate partner) for women with more than primary school education. However, for less educated women, the cash transfer's effect on IPV depends on the relative level of education between partners. If the woman is weakly more educated than her partner, the cash transfer increases emotional IPV.

The effect of UCT on IPV also depends on who receives the transfer. Using a randomized controlled trial on UCT in Kenya, Haushofer et al. (2019) find that transfers to female recipients reduce physical and sexual IPV, while transfers to male recipients reduce physical IPV only. They also find a spillover effect for

non-recipients in the same village: women experience significantly less physical violence in both the treatment group and the spillover group.

If the condition of the transfer is a work requirement, then the effect of employment status may dominate other effects. One such example is welfare reform in the USA in 1996, requiring welfare recipients to work and limit the amount of time they received transfers. Nou and Timmins (2005) find that welfare reform reduces IPV in Connecticut, and this effect is larger in towns with a higher reduction in welfare caseloads.

Bobonis et al. (2013) study Oportunidades, a welfare program in Mexico that gives money to mothers so they can send their children to school and to health centers. They find that Oportunidades decreases physical assaults, consistent with household bargaining, but increases threats of violence. This is consistent either with a model where verbal abuse is a substitute of physical abuse, or with a model of instrumental violence where credible threats of violence are used to extract money. However, there is no difference in physical and emotional IPV between beneficiary and nonbeneficiary couples in the long term (Bobonis et al. 2015). The size of the transfer, husbands' education, and spousal age gap also matter (Angelucci 2008).

Hsu (2017) exploits daily police report data on IPV and state-level variation in the timing of TANF payments in the USA. She finds that men use threats of violence more often immediately following the TANF transfer, but this effect goes away in states that pay TANF recipients twice a month, potentially making each transfer too small to fight over.

The effect of transfers on IPV lasts as long as the transfers do (Roy et al. 2019). That said, contemporaneous interventions – even seemingly innocuous ones like educational sessions on hygiene and child nutrition – can have longer lasting effects through social and bargaining channels.

Employment Status

Research studying the effect of women's employment status on IPV comes to different conclusions depending on the methodology, data, and circumstances of the study. It can also be difficult to disentangle realized employment status from other factors affecting violence. That said, a general theme emerges: Women who already have some power protect themselves with employment, while women who have less power suffer more violence when they are employed. Bowlus and Seitz (2006) find that female employment prior to marriage deters IPV within marriage in Canada. Anderberg et al. (2016) also support classic household bargaining theory, finding negative effects of female employment on IPV and positive effects for male employment in the UK.

However, in areas where women have less economic power, female employment may cause backlash instead. Heath (2014) finds a backlash effect in Bangladesh, but only against women with less education and women who married younger – i.e., women with less bargaining power. Another factor complicating these estimations is that battered women may be more likely to seek employment. Bhattacharyya et al.

(2011) use caste as an instrument for employment status in India and find that a raw positive association between employment and violence reverses. Erten and Keskin (2021) use Syrian refugee inflows into Turkey and distance variables as a source of exogenous variation in female employment, finding that a reduction in female employment reduces IPV.

Cultural differences can also alter the effect of female employment on IPV. Tur-Prats (2021) examines the Spanish context and finds that areas which traditionally had nuclear families (no in-laws in residence) experienced male backlash when female unemployment decreased, whereas this effect did not exist in areas that traditionally had stem families. The male backlash effect, therefore, may be muted where the "male breadwinner" role is less important, such as in areas where both husband and wife traditionally worked outside of the household.

Human Capital and Social Status

Investments in human capital allow women to end violent relationships more easily or have more bargaining power when they choose to stay. Therefore, higher education for women should reduce IPV. The effect of education on IPV is smaller for women with lower returns to education, such as foreign-born women in the USA (Henke and Hsu 2018). Education also affects a woman's social status. Liu and Fullerton (2015) find that increases in a woman's status, proxied by education as well as economic and political variables, decrease her likelihood of being killed in her home (likely by an intimate partner) in Mexico. Increased bargaining power can increase IPV if initial bargaining power is low. Erten and Keskin (2018) examine a change in compulsory schooling laws in Turkey and employ a regression discontinuity design focusing on women around an age threshold for qualification. They find that women just below the threshold had more schooling and experienced more psychological violence and financial control by their intimate partners.

Gendered Labor Demand

Measuring the effect of economic empowerment on IPV presents additional empirical challenges (Tankard and Iyengar 2018). Traditional proxies for a woman's outside option include current realized economic variables like income and employment status. If a woman is employed and makes more money, presumably she could remain employed if she needed to separate, increasing her bargaining power. However, these measures have several complications. An abuser could sabotage his partner's labor market opportunities to maintain power over her (Anderberg and Rainer 2013), her employed status could create resentment leading to violence (Chin 2012), and high income presents an opportunity to use violence to extract resources (Hsu 2017). Also, a homemaker's current economic status may not reflect her potential earnings outside of the household.

One way researchers proxy for a woman's ability to earn outside of the household is through education, but this too presents challenges. Women with higher education have different options in partner matching markets, and so high education's negative correlation with domestic violence may simply reflect this selection. One way researchers overcome these challenges is to use plausibly exogenous variation in local labor demand to estimate a gender wage gap (Aizer 2010; Henke and Hsu 2020). This strand of the literature finds that, as a woman's relative labor demand increases, IPV decreases.

Public Policy and IPV

The previous section discussed economic factors that can be influenced by public policies. This section discusses policies that impact IPV through non-economic factors such as the criminalization of IPV, changing the makeup of the police force, warrantless arrest laws for domestic violence, unilateral divorce laws, women's inheritance rights, sanctuary policies, policies limiting the consumption of alcohol, sheltering services, and randomized controlled trials of small group interventions aimed at improving gender equality.

Criminalizing IPV and Changing Law Enforcement Responses

Improvements to the criminal justice system and law enforcement responses to IPV can reduce IPV. As a first step, criminalizing IPV provides a pretext for law enforcement to respond, and it provides a way for battered partners to report violence. When Mexico criminalized IPV in the 1990s, female suicide rates dropped significantly, likely due to a reduction in IPV (Beleche 2019).

Even when IPV is criminalized, officers responding to an incident must decide whether a crime occurred and how to enforce it. On the one hand, arrest is an extreme, disruptive option and could lead to harsher family life in the future. On the other hand, a higher probability of arrest could deter offenders. The more discretion officers have in making arrests, the more likely a dangerous offender is not arrested; but the less discretion they have, the more likely they must make an unjustified arrest.

In the USA, there are three types of warrantless arrest laws for domestic violence offenders: discretionary, preferred, and mandatory arrest laws (Hirschel 2008). Discretionary arrest laws allow police officers to make arrests at their discretion. Preferred arrest laws encourage, but do not require, police officers to make arrests. Mandatory arrest laws require the police to arrest a violent offender, even if the victim protests. The evidence suggests that discretionary arrest laws reduce spousal homicides (Chin and Cunningham 2019; Iyengar 2019), while some evidence suggests that mandatory arrest laws can dampen the effect of economic downturns on IPV (Cook and Taylor 2019).

Another policy which may improve the response of law enforcement is to change the point of contact for a victim. Miller and Segal (2019) find that an increase in the share of female police officers improves the quality of domestic violence law enforcement by increasing reporting and decreasing intimate partner homicides and non-fatal domestic abuse. Peru created women's justice centers (WJCs) staffed with female officers and others who can provide legal assistance to battered women. Kavanaugh et al. (2020) find that reporting of domestic violence increases while domestic violence incidents, femicide, and female death due to aggression decrease after an introduction of a local WJC.

After an arrest, the local prosecutor decides whether to follow through and prosecute the offender. Aizer and Dal Bo (2009) find that "no-drop" policies that force the prosecutor to continue with a case even after the victim recants act as a commitment device. It increases IPV reporting and acts as a substitute for a more costly commitment device, killing the abusive partner.

Unilateral Divorce

Both household bargaining theory and exposure reduction theory predict that unilateral divorce laws should decrease IPV on the intensive and extensive margins of abusive relationships. Respectively, there should be fewer abusive relationships as victims leave abusive spouses, and victims who remain married have more bargaining power within the marriage. Decreasing the cost of leaving the relationship increases the threat point, and thus the bargaining power, of the person who wishes to leave – likely the victim of abuse. Stevenson and Wolfers (2006) argue, following Coase, that the main effect should be along this intensive margin, as long as household bargaining is feasible and marriages increase total household surplus. They find an 8–16% decline in female suicide, a 10% decline in women murdered by their partners, and about a 30% decline in IPV after the introduction of unilateral divorce in a state in the USA. Brassiolo (2016) finds that the introduction of unilateral divorce in Spain decreased incidents of abuse by 27-36%. However, the effect of removing legal limitations to divorce may be muted if the main cost of divorce is social stigma. García-Ramos (2021) finds that the introduction of unilateral divorce in Mexico does not change IPV in the short term, and it even increases IPV by 3.7 percentage points in the long term.

Inheritance Rights and Property Ownership

A woman's ability to leave a violent marriage is based in part on what assets she can retain outside of the marriage. Indeed, female property ownership is negatively associated with IPV (Agarwal and Panda 2007). If the legal regime is especially punitive to divorcing wives, a woman's option outside of a marriage will be very limited, as will her bargaining power. Using colonial legal regimes as a natural experiment, Anderson (2021) finds that improved property rights for women reduces

IPV in sub-Saharan Africa. Anderson and Genicot (2015) examine a property rights reform in India which awarded women more property rights and found that both men and women committed more suicide. This is consistent with a theory in an instrumental violence mold where increasing bargaining power for women increased conflict and, thus, suicides for both men and women. However, Amaral (2017) finds that IPV decreases after the same policy rollout, suggesting that there may be heterogeneous effects along the distribution of violent couples.

Sanctuary Policies

Immigration policy has significant effects on crime reporting for undocumented immigrants (Jácome 2021). An undocumented immigrant is less likely to report a crime if she fears she will be deported as a consequence. Sanctuary policies are designed to encourage the reporting of crimes, including IPV, by limiting police and federal immigration enforcement cooperation.

One way to report IPV to authorities is through a Violence Against Women Act (VAWA) self-petition, which allows a battered woman to privately and individually apply for lawful permanent residence if she is the victim of battery or extreme cruelty committed by the spouse, former spouse, or parent who would normally sponsor her. By exploiting a staggered rollout of sanctuary policies in the USA, Amuedo-Dorantes and Arenas-Arroyo (2021) find that sanctuary policies increase reporting through VAWA self-petitions.

Alcohol Prohibition and Regulation

Temperance movements have long been concerned with IPV. When alcohol was prohibited in the USA with the passage of the 18th amendment in 1919, its proponents argued it was one way to reduce IPV. The idea is simple – men who are not legally allowed to consume alcohol are less likely to consume alcohol and thus less likely to abuse their intimate partners. During the prohibition era, there was a ten to twenty percent reduction in per capita liver cirrhosis cases, suggesting a significant decrease in heavy drinking, and there was some suggestive evidence of a substantial decrease in domestic violence (Courtwright 2019).

Luca et al. (2019) exploit a staggered rollout and state-level policy variation in minimum drinking age and prohibition in India. They find that men who are allowed to drink alcohol drink more alcohol and abuse more women. The price of alcohol also affects consumption. Markowitz (2000) finds that, as the price of alcohol increases in legal markets, the probability of severe physical violence against wives decreases.

Another way to change men's alcohol consumption is through relative bargaining power. If women control more of the household resources, fewer resources are spent on liquor. Angelucci (2008) finds that Mexico's Oportunidades program, which

provides cash transfers and human capital development to women, reduces male alcohol consumption.

Providing Shelter and Other Services to Victims

A victim of IPV who leaves her partner has an immediate need for a safe space such as a domestic violence shelter. Afterwards, many women require assistance with more permanent shelter to avoid homelessness. The Centers for Disease Control and Prevention consider providing both temporary and longer-term shelter as key policy fronts when preventing and controlling the spread of domestic violence (Niolon et al. 2017). Domestic violence shelters are often underfunded, even in the USA. Funding for these vital services often comes from local sources; thus, these centers tend to be concentrated in richer, more cosmopolitan areas (Tiefenthaler et al. 2005).

There is a rich literature on shelters in social work, public policy, sociology, psychology, and related fields using qualitative and local survey data. This literature highlights key areas of improvement for local shelters and housing services. Some examples of reform areas include better coordination among housing services (Baker et al. 2010), relaxing rigid rules for women staying at shelters (Gregory et al. 2021), and more support groups which emphasize self-compassion (Allen et al. 2021). However, it is difficult to conduct a systematic, quantitative analysis of the effect of these shelters on abuse survivor's outcomes – and, equally importantly, the outcomes of women who do not avail of their services. Thus, there is an opening in the literature for researchers who can find a way to overcome these issues.

Theoretically, a robust domestic violence shelter system lowers the cost of leaving an abusive relationship. Much like the literature on unilateral divorce, the theory predicts two main effects, one on the extensive margin – reducing violence by ending violent relationships – and one on the intensive margin – reducing violence within relationships by improving the bargaining power of women who do not leave.

There are two key empirical challenges to systematically testing the theory. One is the need to obtain detailed data on shelter funding, use, and outcomes. The other challenge is the fact that funding for domestic violence services is higher in communities that are wealthier and care more about preventing domestic violence. Thus, even with a complete national dataset, it would be difficult to identify truly exogenous variation in shelter funding. Given these limitations, current research can offer suggestive, but not conclusive, evidence on the magnitude of a shelter's benefit.

Randomized Controlled Trial Interventions

Researchers have attempted a number of randomized controlled trials studying small group interventions aimed at least partially at preventing IPV. Kim et al. (2009) find that a combined intervention about HIV/AIDS, microfinance, and gender equality reduced IPV in rural South Africa. Gupta et al. (2013) study "gender dialogue groups," where trained field agents instruct rural residents of the Ivory Coast about

gender norms. These groups did not have a significant effect on physical or sexual IPV, but they did reduce economic abuse. Also see the discussion on randomized controlled trials of transfer programs in section "Transfer Programs" (Haushofer et al. 2019; Hidrobo et al. 2016; Hidrobo and Fernald 2013; Roy et al. 2019) and the discussion of Bulte and Lensink (2019) in section "Instrumental Violence".

Summary

The study of IPV is multifaceted and begins in fields outside of economics. That said, economists have contributed to the study of IPV in various ways, including the development of theory, novel methods, varied policy analysis, and the introduction of new data. Their research complements descriptive and qualitative analysis by providing credibly causal estimates of different theories and policies.

This chapter addresses both the significant costs of IPV and the challenges faced by scholars when studying it. It examines theories of IPV and how economists test those theories, including household bargaining, expressive violence, instrumental violence, male backlash, exposure reduction, and cultural norms. It then considers the research on how economic factors, including income shocks, transfer programs, gendered labor demand, employment status, and human capital investments, influence IPV. Finally, it discusses research on the efficacy of specific policy interventions, including legal and law enforcement policies, unilateral divorce, property ownership and inheritance rights, sanctuary policies, alcohol regulation, shelter services, and randomized controlled trials.

There are many motivations for an abuser to be violent and for a victim to stay in the relationship. This creates various open questions in the field. What theories dominate, and hence which policies work, is a nuanced question that depends on a number of factors. There is often no clear-cut single policy recommendation. Female employment, for instance, can help or hurt depending on the couple's circumstances or local cultural attitudes towards violence. More research is needed to measure these contours and nuances, as well as resolve contradictory findings in the literature.

Some clear recommendations to combat IPV emerge from the literature. It is important to make it easy for women to report IPV and leave violent relationships. To accomplish this, policy makers can remove barriers to divorce, improve law enforcement labor force makeup and response, provide resources for women facing homelessness when they end relationships, and provide a robust labor market for women who need to enter the workforce in a hurry. A cultural condemnation of wife beating also appears important, though more research is needed on how to change these attitudes.

Cross-References

- ► Behavioral Household Economics
- ► Covid-19 and Gender

- ► Female Breadwinning and Partnership Stability
- ► Gender Gaps in Education
- ► Gender Wage Gaps and Skills
- ▶ Women's Empowerment (Domestic Violence) and Employment

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