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The impact of legislative change on reported domestic violence against women in India

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Abstract

This paper investigates whether two legislative changes aimed at empowering women did in fact lower the risk of domestic violence for women in India. We use the National Family Health Survey, a nationally representative household dataset to explore this issue. We exploit a legislative change geared at improving the political representation of women by reserving at least one-third of seats in the local Panchayats for women. The change to representation was implemented at different dates depending on the timing of elections. The second change is a natural experiment wherein five states made amendments to their inheritance laws allowing daughters equal status as sons in the right to inherit the joint property of the father. We use this arguably exogenous variation to study whether the improvement in women's autonomy in these states as a result of the passage of this law had any impact on the likelihood that they report being victims of domestic abuse. Our results suggest that improved representation increased the reported probability of violence. There are two competing explanations for these results. First, women may have experienced retaliation by men who feared the erosion of their power and opposed the policy change. Second, the policy change may have made women more willing to report violence to interviewers.

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1. Introduction

The problem of violence against women is particularly severe in India. A 2012 survey by Thomson Reuters Foundation ranks India as the worst of the G-20 major economies for women (Baldwin 2012). Further, according to Ramadurai (2013), among 15-19 year olds in India, 57 percent of boys and 53 percent of girls find wife beating acceptable. This is troubling since research suggests that women who justify wife beating are also more likely to report being subject to domestic violence (Kimuna et al. 2013). Data from the National Crime Records Bureau (NCRB), an agency that collects data on crime in India, suggest that there were 244,270 crimes committed against women during 2012 (a rate of 41 crimes per 100,000 women). These crimes include 24,923 rapes (4 per 100,000 women), 8,233 dowry-related murders (1 per 100,000 women), and 106,527 instances of abuse by a husband or his relatives (18 per 100,000 women).¹

One of the most comprehensive, nationally representative data sources on domestic violence in India is the National Family Health Survey (NFHS), an initiative of the Indian government that was first launched in 1992-1993. While the focus of the survey has been on family welfare, maternal and child health, and nutrition, second (NFHS-2) and third (NFHS-3) rounds of the survey, launched in 1998-1999 and 2005-2006, have increasingly added questions relating to domestic abuse. NFHS-3, in particular, has the most extensive set of questions on wife beating. In this survey, 35 percent of ever-married women report having been physically abused by their spouse. The problem is exacerbated because only around a third of women report telling anyone or seeking help.

The reluctance of women to seek help further suggests that the reported crimes in the NCRB database suffer from severe under-reporting. As per the NCRB data, over the period 2001-2011, there has been a 25.8 percent increase in dowry deaths and more than a 100 percent increase in the category “cruelty by husbands and relatives”.² A large part of this is likely to be higher reporting rather than simply higher incidence of abuse. In 2005, the Indian government passed the Protection of Women from Domestic Violence Act, which was different from the earlier law, Section 498A of the Indian Penal Code, because it explicitly defines domestic violence in addition to dowry-related cruelty. Under this Act, women could report not just actual abuse, but the threat of abuse, whether physical, sexual, verbal, emotional or economic.

This paper focuses on the factors that might explain the prevalence of domestic abuse, by using household-level data from the National Family Health Survey (NFHS). An advantage of the NFHS is that we have two waves of data. While the NFHS is not a panel, the repeated cross section design allows us to exploit policy variation both across states and demographic groups, and over time.

The basic question that the paper seeks to answer is whether women’s empowerment, through political reservation or changes in inheritance laws, does in fact lead to a decline in reported domestic abuse. On the one hand, empowerment can improve the household bargaining position of wives relative to their husbands. On the other hand, husbands may view more empowered wives as a threat to their own status, and may retaliate with violence. In addition, the

¹ Crime data were downloaded from the National Crime Records Bureau’s 2012 “Crime in India” report, available at http://ncrb.gov.in/CD-CII2012/Additional_Tables_CII_2012/Additional%20Tables.htm. The crime counts reported come from Table 3e (“All India Crimes against Women during 2001-2012”) and were converted to rates using a total female population of 586,469,174, as reported in the 2011 Indian Census (available at http://www.censusindia.gov.in/2011-prov-results/data_files/india/Final_PPT_2011_chapter5.pdf).

² <http://ncrb.gov.in/CD-CII2011/Statistics2011.pdf>

surveys themselves may suffer from underreporting due to the sensitivity of the questions on domestic abuse (see e.g., Tourangeau and Yan 2007; Huddy et al. 1997). Laws that aim to empower women may reduce underreporting, thus resulting in a measured increase in domestic violence.

In this paper, we exploit variation created by two legislative changes that took place in India in an approximately similar time period. The first was the increase in political reservations for women in states and Union territories through the passage of the 1993 73rd Constitutional Amendment. The second was a change in state-level inheritance laws. We use variation in these laws across women (differentiated by state, religion, and/or date of marriage) to proxy for women's empowerment. We find that political reservations significantly increase the probability of reporting violence. At the same time, we find that inheritance law changes do not have a statistically significant impact on domestic violence, though the estimated coefficient is negative. Untangling the mechanism behind these results is beyond the scope of this paper, but we provide a discussion of what might be driving them.

A few earlier papers have also examined the impact of these changes on violence against women. Iyer et al. (2012) show that increases in political reservations increase documented crimes against women. They argue that this is due to an increase in reporting rather than an increase in the actual incidence of these crimes. Amaral (2014) finds that the inheritance law changes significantly reduce both documented crimes against women and reports of violence in the NFHS data.³ The main contribution of our paper is to extend the work of Iyer et al. (2012) by examining the impact of political reservations on nationally representative, survey-based measures of domestic violence. We also directly compare its impact with that of the inheritance law changes using the same dataset.

2. Two Legislative Changes: The Hindu Personal Inheritance Law and Women's Political Representation

2.1. Women's Political Representation

Since the early 1950s, India has had a system of local governing village councils, known as Gram Panchayats. The 73rd Constitutional Amendment, which was passed in 1993, made several changes to these Panchayats. First, the Panchayats – which were previously quite weak – were given more fiscal authority and more control over local services such as water provision, sanitation and roads (Chattopadhyay and Duflo, 2003, Ghatak and Ghatak, 2002). Second, a fraction of seats was required to be reserved for women, scheduled castes, and scheduled tribes (see e.g., Chattopadhyay and Duflo (2003), Iyer et al. (2012) and Ghani et al. (2014)). It is the latter change that serves as the policy experiment in our paper. Even though the 73rd Constitutional Amendment applied to all Panchayats, there was variation in the timing of implementation due to the fact that some states had already adopted similar changes prior to

³ There are numerous other studies on determinants of domestic violence in India. Some find a lower risk of domestic violence among women who work (Bhattacharya, Bedi and Chhachhi, 2009), earn more income (Rao 1997), or have greater wealth (Panda and Agarwal 2005). Panda and Agarwal (2005) further find that women who own assets are also more likely to leave their homes if they experience violence. Rao (1997) finds that the woman's income plays a larger role in explaining reductions in violence than the incomes of other family members. On the other hand, Jejeebhoy (1998) finds no statistically significant relationship between domestic violence and a woman's paid employment, and Kishor and Johnson (2004), Eswaran and Malhotra (2011), Kimuna et al. (2013) and Krishnan et al. (2010) find an increase in the risk of domestic violence among women who work for pay. Of these studies, Kishor and Johnson (2004), Kimuna et al. (2013), and Eswaran and Malhotra (2011) use the NFHS data.

1993, as well as the fact that the post-1993 reservations were not implemented until there were local elections. As documented in Iyer et al. (2012), West Bengal incorporated this change in 1993 but before the passage of the Amendment. Kerala made a similar change in 1991. Other states like Karnataka, Maharashtra and Madhya Pradesh implemented these changes even earlier. We use the timing of these changes using data provided in Iyer et al. (2012) as well as Ghani et al. (2014) to explore the impact of these laws on domestic violence against women.

2.2. Hindu Personal Inheritance Law

Our second policy experiment comes from the Hindu Succession Act – which governs the disposal of the property of intestate Hindus, Buddhists, Jains, and Sikhs – and various state-level amendments that were aimed at reducing its bias against women.⁴ Historically, Indian inheritance law gave daughters the right to inherit their fathers' separate property, although the claims of male heirs and the widowed mother took precedence. In some instances, inheritance law made a distinction between separate property and family ancestral property and gave male, but not female, descendants a legal right to the ancestral property.

The Hindu Succession Act of 1956 tried to attenuate the bias against daughters; however significant gender inequalities persisted. Under the Act, daughters had the same right as sons to inherit their fathers' separate property, as well as the father's "notional" share of the family's ancestral property. However, sons were further entitled to their own, independent share of the family's ancestral property. Sons were also allowed to request that the ancestral property be divided, while daughters had no such right.

After the 1956 Act some states enacted legislation to amend the Act in order to make it more gender neutral. These states include Kerala (1976), Andhra Pradesh (1986), Tamil Nadu (1989), Maharashtra (1994), and Karnataka (1994). These amendments gave women in the affected states an independent claim to the family's ancestral property. However, they only applied to women who were not married when the legislation was passed. These arguably exogenous changes in inheritance law provide a natural experiment for our study, as they allow us to test whether women who were "treated" by the amendments experienced different outcomes than other women who were unaffected by the amendments.

3. Analysis of the Data: National Family Health Survey, 1998-99 and 2005-2006

The National Family Health Survey (NFHS) is conducted by the Ministry of Health and Family Welfare of the Government of India. There have been three waves so far, with the first two in the years 1992-1993 and 1998-99 and the third in 2005-06. In this paper, we work with the two waves conducted in 1998-99 and 2005-2006 since these waves had information on domestic violence. Our sample consists only of ever-married women. In 2005-06, some women were randomly assigned to be interviewed for a domestic violence module, which collected much more detailed information than the earlier wave. For 2005-06, we keep only women who participated in this module.⁵

We use two alternative dependent variables in our NFHS analysis. The first is an indicator for whether the respondent has been subjected to violence by her spouse. The second is whether the respondent has been subjected to violence by anyone (including her spouse). For the political representation treatment variable, we define a woman as treated if the state in which she

⁴ Our description of the Hindu Succession Act, its history, and its amendments draws heavily on Roy (2008).

⁵ We also drop observations with missing values for any of the variables used in our analysis.

lives has had its first election to elect a woman to the Panchayat, and the woman lives in a rural area. For our inheritance treatment variable, a woman is considered treated if she is not Christian, Muslim, Parsi, or Jewish⁶, and was married after the enactment of inheritance law reform in her state. In regressions that use this treatment variable, we drop all women who were married in 2005 and later.

About 22 percent of the women in our sample, overall, report being beaten by a spouse, and 25 percent report ever being beaten. Forty five percent have no education, while 29 percent report some form of secondary education. Less than half say that their age at marriage was greater than 18, which is surprising given that the legal age for marriage in India is 18. For the partner, a much higher fraction, 41 percent and 17 percent, reported secondary and higher levels of education, respectively. Approximately 77 percent of women are Hindu. On average, these women were married in the year 1988, and 37 percent were living in an urban area. Overall, in 2005-06, 35 percent of women report experiencing some form of violence by their spouse, most commonly slapping. A slightly higher percentage of women have been physically harmed by anyone (including their spouse). The domestic violence questions in the 1998-99 wave are far less detailed, and perhaps as a result, the levels of reported violence are lower. Only 19 percent report ever being beaten by a spouse, and 21 percent report ever being beaten by anyone (including their spouse).⁷

Given the sensitive nature of the topic under consideration, it is likely that the domestic violence questions are subject to biases in reporting. Specifically, women may not feel comfortable reporting that they have been victims of violence. A good overview of these issues can be found in Tourangeau and Yan (2007) as well as Huddy et al. (1997), among others. The NFHS survey documentation does not indicate whether any special measures were taken to elicit more accurate responses on sensitive questions. So it is likely that there is under-reporting of abuse if women were reluctant to open up to interviewers, particularly if interviewers were male or if other family members were present in the home. Hence reported abuse may be even higher than what we observe in the responses. It is also possible that the reforms we study reduced the stigma of being a domestic violence victim and made women more willing to open up to interviewers.

⁶ The religious groups in the NFHS include Hindu, Muslim, Christian, Sikh, Buddhist/Neo-Buddhist, Jain, Jewish, Parsi/Zoroastrian, No Religion, Donyi Polo, Other, and two small, unlabeled groups. We exclude women from the treatment group only if they are identified as Muslim, Christian, Jewish, or Parsi/Zoroastrian. In constructing the religion dummies used as controls in the regressions, we combine Jain, Jewish, Parsi/Zoroastrian, No Religion, Donyi Polo, Other, and the two unlabeled groups into the “Other” category.

⁷ The 2005-06 wave of the survey includes two summary variables for spousal violence, one indicating whether the respondent has “experienced any less severe violence” (including the responses in the first four rows of the top panel of Table 5), and another indicating whether the respondent has “experienced any severe violence.” Our spousal violence variable takes on the value of 1 if either of these responses is positive, and zero if both of these responses are negative. The 2005-06 wave also includes a summary indicator for whether the respondent has been hurt by someone other than her spouse. Our indicator for being subjected to any violence takes on the value of 1 if the respondent has been subjected to violence by her spouse (spousal violence variable equal to 1) or someone other than her spouse. It takes on the value of zero if the respondent has not been subjected to violence by either her spouse or by anyone other than her spouse. The 1998-99 wave of the survey includes indicators for whether the respondent has ever been beaten since age 15, and specifically whether her husband has ever beaten her. Our indicator for being subjected to any violence is directly based on the survey indicator for whether the respondent has been beaten since age 15. If the respondent indicates having been beaten by her husband, we set the spousal violence variable equal to 1. If the respondent indicates that she has never been beaten by anyone, or that she has been beaten but not by her husband, we set the spousal violence variable to zero.

4. Estimation Strategy and Results

We estimate probit regressions to explain the dependent variables described in the previous section. The dependent variables include a dummy that takes on the value of 1 if the respondent is employed (a general indicator of women’s empowerment), a dummy that takes on the value of 1 if the respondent has ever been beaten by her spouse, and a dummy that takes on the value of 1 if the respondent has ever been beaten by anyone. Baseline controls include state dummies, interview year dummies, marriage year dummies, religion dummies, and a dummy indicating residence in an urban area. These controls are necessary as the two treatments – the inheritance law and the change to political representation – depend on their values. We also try including additional controls for education level, partner education level, caste, marital status, and whether the respondent was 18 or older at the time of marriage. We cluster standard errors by state.

Table 1 shows our baseline results. The coefficients reported are marginal effects. We report only the results for the two policy variables (full results are available upon request). We find no statistically significant relationship between being treated by the inheritance law and the probability of either being employed or being beaten. However, the point estimates are positive for employment and negative for being beaten, in line with Amaral (2014).⁸ Being treated by the political representation change is associated with a roughly 8 percentage point increase in the probability of reporting being beaten either by a spouse or by anyone.⁹

Table 1: Determinants of Employment and the Probability of Abuse

VARIABLES	Employed		Beaten by Spouse		Ever Beaten	
Treated (political representation)	0.022 (0.022)	0.023 (0.022)	0.079** (0.024)	0.082** (0.024)	0.083** (0.024)	0.084** (0.024)
Treated (inheritance law)	0.001 (0.020)	0.002 (0.020)	-0.017 (0.013)	-0.014 (0.011)	-0.017 (0.011)	-0.015 (0.010)
Number of Observations	153,073	150,559	150,559	153,073	150,559	150,559

Notes: Coefficients shown are marginal effects. NFHS sample weights used (individual sample weights for 1998-99 data and domestic violence module sample weights for 2005-06 data). Regressions also include dummies for state, year of interview, year of marriage, religion, and urban/rural residence status. Standard errors clustered by state. Regressions that include the inheritance law treatment drop individuals who were married after 2005.

** p<0.01, * p<0.05, + p<0.1

Table 2 presents results for the regressions that include additional controls for own and partner education, caste, and whether the respondent was 18+ at the time of marriage. Results are fairly similar, except that political representation is associated with a roughly 3 percentage point increase in the probability of employment (statistically significant at the 10 percent level). This is consistent with Ghani et al. (2013), who find that political representation led to women being provided longer hours of work under the National Rural Employment Guarantee Scheme, and

⁸ Our explanatory variables are different from Amaral (2014) in that we do not include controls for education and age gaps between the woman and the spouse, dummy for TV ownership, household size and son preference. We believe that some of these are likely jointly determined with the dependent variables.

⁹ We also try specifications that include an interaction between the two laws, reflecting the possibility that the marginal effect of each law is different for women who are also subject to the other law. However, these interactions are insignificant.

also encouraged greater participation overall. Ghani et al. (2014) find that while these reservations had no impact on manufacturing employment, they did lead to more women-owned establishments in the informal sector.

Table 2: Determinants of Employment and the Probability of Abuse (with additional controls)

VARIABLES	Employed		Beaten by Spouse			Ever Beaten	
Treated (political representation)	0.032+	0.033+	0.080**	0.083**	0.084**	0.086**	
	(0.018)	(0.018)	(0.021)	(0.022)	(0.022)	(0.022)	
Treated (inheritance law)	0.008	0.009	-0.004	-0.002		-0.006	-0.003
	(0.019)	(0.019)	(0.011)	(0.010)		(0.011)	(0.010)
Number of Observations	153,073	150,559	150,559	153,073	150,559	150,559	150,559

Notes: Coefficients shown are marginal effects. NFHS sample weights used (individual sample weights for 1998-99 data and domestic violence module sample weights for 2005-06 data). Regressions also include dummies for state, year of interview, year of marriage, religion, urban/rural residence status, own and partner education, caste, and whether the respondent's age of marriage was 18+. Standard errors clustered by state. Regressions that include the inheritance law treatment drop individuals who were married after 2005.

** p<0.01, * p<0.05, + p<0.1

Within our control variables, we find that women with a secondary or higher education (relative to no education), and women who were married at older ages (specifically over the age of 18) are less likely to be beaten.¹⁰ Having a spouse with a secondary or higher education (relative to no education) reduces the likelihood of being subjected to violence.

The positive coefficient on political representation has two possible interpretations. First, women may have experienced retaliation by men who feared the erosion of their power and opposed the policy change. This is also somewhat supported by the positive effects on employment due to the political representation law change. More employment may invite more retaliation. Second, the policy change may make women more willing to report violence to interviewers. The second explanation is in line with the results in Iyer et al. (2012) who find that reported crimes against women increased with the reservation for women in local Panchayats.¹¹ A recent paper by Gupta (2014) comparing data from the National Crime Records Bureau and the NFHS finds that even in 2005, there is significant under-reporting of crimes against women. In particular, only about 2 percent of the incidents of physical violence by the husbands were reported. While underreporting is likely more severe in official crime statistics, it is possible that interview responses are subject to underreporting as well, and that this underreporting fell as a result of the policy change.

We do not have definitive evidence to distinguish between these two potential explanations. The weak evidence that women's employment increased as a result of the political representation change (an indicator of greater empowerment) suggests that women may have

¹⁰ In India, early marriages have also been shown to be associated with lower educational attainment, higher maternal mortality and high levels of child malnutrition (Caldwell et al. 1983).

¹¹ Iyer et al. (2012) find in the Rajasthan survey that women were not significantly more likely to report in surveys that they were victims of abuse in villages where the council head was a woman. However, our survey responses suggest an increase in reported abuse in response to survey questions. There could be multiple reasons for this. First, our study looks at aggregate, national data and is not focused only on Rajasthan. It is also possible that in comparing responses over a longer period of time as we do, we find an increase in reported crimes that is not that easily evident in the Iyer et al. (2012) data. Second, the same Rajasthan survey shows that women are more likely to report crimes to the police. If this is true, then we suspect they may also be more likely to report crimes to the enumerator. So we don't view our results as necessarily the opposite of Iyer et al. (2012).

faced higher retaliation from men. However, at the same time, they may have felt more empowered to speak out about it. In order to isolate the two effects, Iyer et al. (2012) and Amaral (2014) rely on certain categories of crimes such as murders or natural accidental deaths which are less likely to be under-reported. They find no significant increase in that category. Further, Iyer et al. (2012) rely on an individual crime victimization survey conducted in the state of Rajasthan, and find no evidence of an increase in crimes against women in villages where the council head position is reserved for a female leader. While the results and the narrative in Iyer et. al (2012) seem plausible to us, it is beyond the scope of our paper to further parse out this result in our paper. It is certainly possible that underreporting occurred in the nationally representative NFHS but not in Iyer et al.'s more specialized survey.

We find stronger impacts of political representation on reported abuse as compared to inheritance law changes. While inheritance law changes presumably made women wealthier and increased their bargaining power within the household, the impact of political representation was more direct and had consequences not just for the women benefitting from the legislation but for the community of women surrounding them. We know from the research cited from Rajasthan in Iyer et al.(2012), that in villages where the village council head position was reserved for women, other women in the community felt it was easier to approach the police to report crimes. Moreover, the police also exhibited greater responsiveness to crimes against women after the reservation policy was implemented. This may have had a more significant impact on the reporting of crimes rather than inheritance law changes that only had the direct effect of increasing women's wealth.

It is also possible that political empowerment and the greater responsiveness of the police to crimes against women may have further encouraged employment among women. This is the finding in Amaral et al. (2015), which studied the impact of the National Rural Employment Guarantee Scheme in India on domestic violence. With the employment opportunities that expanded to women, the authors find an increase in reported domestic violence against women. It is not clear whether higher reported violence is due to a greater degree of empowerment or just higher reporting. Our paper, similarly, does find an increase in reported violence, which could be a result of both higher reporting as well as a higher incidence of violence associated with more employment.

5. Conclusion

This paper investigates whether two legislative changes aimed at empowering women did in fact lower the risk of domestic violence for women in India. We use the National Family Health Survey, a nationally representative household dataset to explore this issue. The first legislative change we exploit was geared at improving political representation of women by reserving at least one-third of seats in the local Panchayats for women. The change to representation was implemented at different dates depending on the timing of elections. The second legislative change is based on state-level amendments to inheritance laws allowing daughters equal status as sons in the right to inherit the joint property of the father. We use this arguably exogenous variation to study whether the improvement in women's autonomy in these states as a result of the passage of this law had any impact on their likelihood of being victims of domestic abuse. Our results suggest that improved political representation increased the probability of violence. There are two competing explanations for these results. First, women

may have experienced retaliation by men who feared the erosion of their power and opposed the policy change. Second, the policy change may have made women more willing to report violence to interviewers. The second explanation is in line with the results in Iyer et al. (2012) who find that reported crimes against women increased with the reservation for women in local Panchayats.

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