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Within-family Marriages and Justification of Domestic Violence in India

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Abstract: Domestic violence remains pervasive in India, with high justification of wife-beating among married women. Evidence also shows that women who marry a blood relative are more likely to justify domestic violence. This raises a critical question about whether marriage practices can influence married women's attitudes towards domestic violence. This paper examines whether changes in community-level marriage practices can influence married women's acceptance of domestic violence. I find no evidence of such an influence, and the finding remains robust across multiple specifications. While changes in marriage practices might affect other aspects of a married woman's life, they appear insufficient to impact deeply held attitudes.

Keywords: Marriage norms, consanguinity, kinship, domestic violence, India
JEL: J12, J16, Z1

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1 Introduction

The World Health Organization recently published that an estimated 27% of women aged between 15 and 49 years have experienced some form of intimate partner violence worldwide (World Health Organization, 2024). In India, about 1 in every 3 ever-married women reported having faced domestic violence at least once. Of these women, 84% reported their current husband as the perpetrator (International Institute for Population Sciences (IIPS) and ICF, 2021). Beyond its human costs, domestic violence also spills over into the economy through direct increases in healthcare costs and more indirect reductions in labor market participation and productivity (Yodanis et al., 2000).

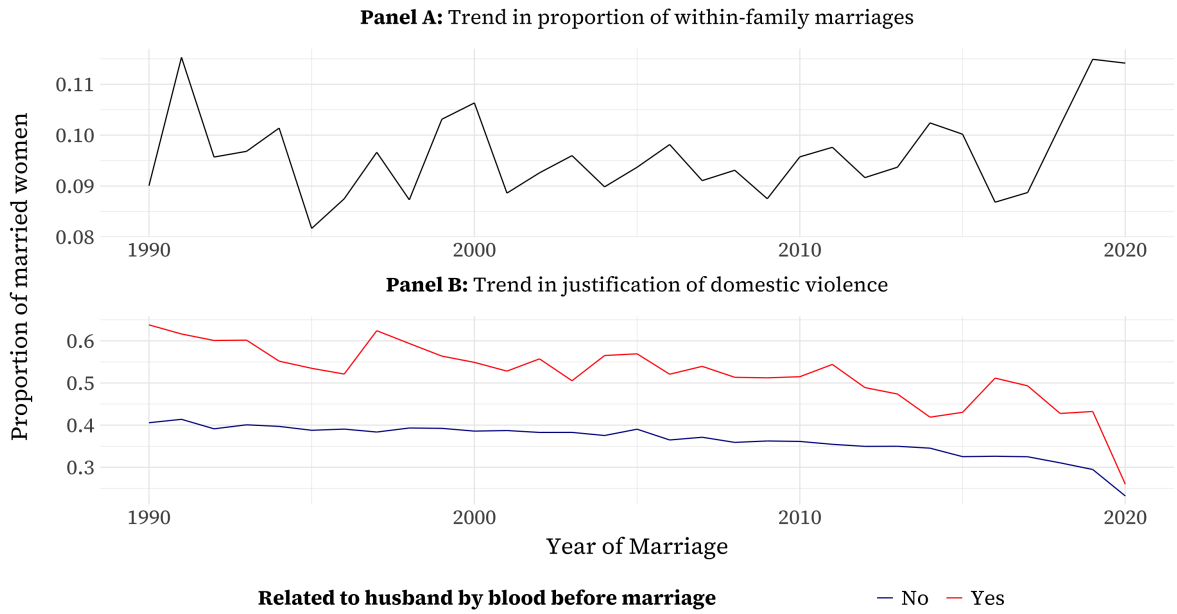
While the large incidence of domestic violence is concerning, another puzzling phenomenon is women's acceptance and justification of it around the world. According to estimates from the fifth round of the National Family Health Survey in India (International Institute for Population Sciences (IIPS) and ICF, 2021), around 45% of sampled women aged 15-49 agreed that "a husband is justified in hitting or beating his wife for specific reasons". In the same survey, violence justification rates amongst men were about 44%. The results provide evidence of the wide acceptability of violence against women within the household, which can also crucially determine the actual incidence of violence (Jewkes, 2002). Some factors aiding the persistence of this phenomenon are harmful narratives within established patriarchal structures that ensure low bargaining power for women and have major implications for women's development outcomes.

Another prevalent phenomenon across several cultures and religions is the practice of arranging marriages within the family. This prevalence has historical roots- Coontz (2006) argues that historical variations in marital structures emerged as a rational response to greater societal surpluses. There was an increased tendency to arrange marriages in more restricted circles and maintain wealth and power within the family. The latest round of the National Family Health Survey (2019-21) (International Institute for Population Sciences (IIPS) and ICF, 2021) reports that about 11% of all marriages in India were between blood-related family members. Panel A in Figure 1 shows the trend in the prevalence of within-family marriages in India between 1990-2020. The rate has remained constant at about an average of 10% of all marriages indicating that consanguinity continues to be one of the preferred forms of marital arrangements.

However, the significance of various marriage arrangements extends beyond their prevalence in different communities. Panel B of Figure 1 also shows evidence of a systematic difference in married women's domestic violence justification rates based on the marriage arrangement type. While we see an overall decline in the justification rates

over time across both groups, women in within-family marriages seem more accepting of it. In the latest round of the NFHS, domestic violence justification rates amongst women married within the family were approximately 50% compared to about 32% amongst women married outside. The relationship between marital structure and attitudes towards domestic violence presents an empirical puzzle. Hussain (1999) points towards two contradicting channels through which marrying a blood relative can impact the incidence of domestic violence. Getting married to a match within the family could lead to a more stable and accommodating marriage due to close kinship bonds. Women in these marriages might be more empowered and less likely to justify domestic violence. On the other hand, getting matched with a relative from an existing patriarchal structure essentially facilitates a marriage within the same socially regulated environment. In cases of marital conflict, women might tend to become more inclined to justify domestic violence to maintain family harmony. This paper seeks to reconcile the two opposing channels and analyze how marital structures can influence married women's attitudes towards domestic violence.

Figure 1: Trends in proportion of within-family marriages and justification of domestic violence.



Note: In both panels, the vertical axis shows the proportion of married women, and the horizontal axis shows the year of marriage. Panel B plots the trend in domestic violence justification disaggregated by within-family marriage status, i.e., whether a woman was related to her husband by blood before marriage.
Source: National Family Health Surveys 2015-16, 2019-21

I aim to understand how marriage, as a social institution, influences attitudes that determine women's safety and status in society. Specifically, I analyze whether the type of marital structure a woman is in can impact her acceptance of domestic violence. To do this, I use community-level variations in the prevalence of within-family marriages over time and estimate the evolution of domestic violence attitudes across the

communities. I use nationally representative data from the fourth (2015-16) and fifth (2019-21) rounds of the National Family Health Surveys (NFHS) conducted in India. Given the stigmatized and sensitive nature of domestic violence, the NFHS is one of the few surveys which provides extensive data on it.

I utilize two features of Indian marital practices in my empirical strategy. Marriage decisions in India largely reflect established practices within the community rather than individual choices (Allendorf and Pandian, 2016). Jejeebhoy and Halli (2005) also find that these practices primarily vary along the religious and regional dimensions. Building on this evidence, I define a community as a district-religion group[1] and use changes in the prevalence of within-family marriages across communities as an indicator of shifting marital norms. Specifically, I measure these changes by comparing average within-family marriage shares between 1990-2000 and 2010-2020, allowing the years in between to act as a transitory period when a norm shift might occur.

I use a difference-in-difference methodology to analyse the effects of changing marital practices on married women's attitudes towards domestic violence justification. This design can help me examine whether the changes in marriage arrangements over time, induce heterogeneous impacts on younger and older married women within the same community. My identifying assumption is that, conditional on region and religion fixed effects, in the absence of a shift in marriage practices, there would not have been a significant impact on the difference in domestic violence justification rates between communities that experienced a large versus modest change in within-family marriage shares. The results suggest that a change in marital norms, captured through a change in the prevalence of within-family marriages, had no statistically significant effect on the domestic violence justification rates of married women, regardless of their marriage cohorts.

The DAG below illustrates the key relationships which form the basis of my empirical strategy:

$$\begin{array}{c}\text{Shift in}\\ \text{Marital Norms}\end{array} \longrightarrow \begin{array}{c}\text{Change in}\\ \text{Marriage Arrangements}\end{array} \longrightarrow \begin{array}{c}\text{Evolution in}\\ \text{DV justification}\end{array}$$

Arranging marriages within the family continues to be a prevalent practice in the developing world. As argued by Coontz (2006), the practice emerged and continues to exist as a strategic response to certain marriage market imperfections. Do et al. (2013) argue for the economic rationale behind preferring within-family marriages as they tend to address and moderate the effects of imperfect information. Preferences for

[1] I further clarify the definition of a district in the Data section of the paper. Districts are used as a proxy for regions to account for changes on a granular level.

property consolidation (Anderson and Bidner, 2015; Bahrami-Rad, 2021) also drive the prevalence of within-family marriages as an optimum marriage market outcome. Moreover, marriages in developing countries are marked by marital transfers, and within-family marriages have been preferred to delay these transfers (Mobarak et al., 2013). These marriage market preferences determine a woman's status, bargaining power, and well-being within the household. Rahaman et al. (2022) show that the possibility of postponing dowry transfers in within-family marriages reduces women's bargaining power. Mobarak et al. (2019) also find similar evidence in Pakistan and Bangladesh, where within-family marriages are associated with increased dowry deferments and domestic violence. This study further contributes to the literature on marriage markets and how they influence women's attitudes. My findings suggest that changes in marriage arrangements do not significantly change justification of domestic violence.

Assessing the influence of marital structures on attitudes also necessitates understanding social norms, particularly those concerning marriage and family structures. Desai and Andrist (2010) show that marriage norms in India tend to be quite persistent, and arranged marriages continue to be the norm. While there has been some shift towards considering the individual's choice, it has not displaced the family's final authority (Allendorf and Pandian, 2016). These marriage practices, in turn, reinforce broader attitudes concerning gender roles and justification of domestic violence (Alesina et al., 2016). Koenig et al. (2006) find a significant association between community-level norms about wife beating in Northern India and physical violence against women. Similar evidence on the general acceptability of wife beating is found in a qualitative study in Chennai by Go et al. (2003). They also show regional and religious variations in domestic violence acceptability, corroborating similar evidence by Jejeebhoy and Halli (2005) on determinants of marriage patterns. This study adds to the literature on norms governing marriage structure by relating changes in marital preferences to attitudes towards domestic violence. I find that these attitudes persist even as marital norms evolve.

The association between within-family marriages and domestic violence attitudes has previously been studied in different cultural contexts. In Pakistan, Malik et al. (2024) find higher domestic violence justification rates amongst younger women married within the family. This association is particularly strong for women who experienced parental violence and is reflective of the potency of within-family marriages in reinforcing traditional gender roles. Yount and Li (2009) finds a similar association in Egypt. In India, Rahaman et al. (2022) also find higher acceptance of husbands' authority amongst women who were previously related to their husbands by blood. The previous study, along with others (Usta et al., 2015; Shaikh, 2016), also finds positive

associations between marrying within the family and the actual incidence of violence against women. I examine changes in marital structures over a longer period of time and find that even with large, sustained shifts in marital preferences, attitudes tend to be sticky.

The rest of the paper will be structured as follows: section 2 provides further details on the practice of intra-family marriages. Section 3 describes the data, key variables and descriptive statistics. Section 4 lays out the primary research questions and the empirical methodology. Section 5 discusses the results and dives deeper into possible mechanisms, heterogeneity, and robustness of the results. Section 6 concludes the paper.

2 Background

Bittles (1994) defines consanguineous mating as "unions between individuals who share at least one common ancestor and is conventionally applied to persons related as second cousins or closer". While mostly proscribed within Western societies, within-family marriages account for 20-50% of all marriages across three major global regions: North and Sub-Saharan Africa, the Middle East, and West, Central and South Asia (Bittles, 1994). In India, where approximately 11% of marriages were arranged between blood relatives, first-cousin marriages are the most common (Acharya and Sahoo, 2021). The practice of consanguinity shows significant regional and religious heterogeneity. Within the Hindu populations in the Southern region of India, first-cousin (usually between a man and his maternal uncle's daughter) or, more infrequently, uncle-niece marriages are practised (Acharya and Sahoo, 2021). However, consanguineous marriages are more regulated and relatively less prevalent among the Hindu population in the Northern parts of India. Consanguinity is ubiquitous in all Indian Muslim communities.

Historically, there have been several reasons posited for engaging in these marriages. Hamamy and Alwan (2016) suggests that cousin marriages might be a critical cultural transmission and continuity channel. According to Bittles and Black (2010), some essential demographic and social characteristics explaining the continued prevalence of within-family marriages are place of residence, socioeconomic status, community and family traditions regarding consanguinity, maternal education levels, spousal age difference, birth intervals as well as age at first birth. Factors that have been found to predict within-family marriages also include married woman's age and religion, their educational attainment, wealth index, and region of residence (Acharya and Sahoo, 2021).

The prevalence of attitudes justifying domestic violence also varies widely in regions

across the world. Women in societies with deeply entrenched patriarchal values are often more likely to approve of domestic violence (Lassi et al., 2021). For instance, while Alesina et al. (2016) find an acceptance rate of 46% in a cross-cultural analysis of Africa, Solotaroff and Pande (2014) study the attitudes in South Asia and report acceptance rates in the range of 24-47%. There is mixed evidence in the direction and intensity of the association between consanguinity and attitudes towards domestic violence. Beyond the economic reasons, including property consolidation (Bittles, 1994) and favourable marital transfer properties (Do et al., 2013), within-family marriages have also been preferred for their alleged protective effects against intimate partner violence (Clark et al., 2009; Zafar et al., 2024). However, women married to a blood relative in India and Pakistan were more likely to be victims of domestic violence and justify wife-beating, respectively (Rahaman et al., 2022; Malik et al., 2024). The relationship between within-family marriages and attitudes towards domestic violence presents a complex picture. The following analysis attempts to disentangle this relationship.

3 Data

In this section, I describe the data sources and key variables and provide descriptive statistics.

3.1 Data Sources and Key Variables

I use the National Family Health Surveys (NFHS) as the primary data source. These are cross-sectional and nationally representative surveys conducted in India. Questions regarding consanguinity status were included in the first, fourth, and fifth rounds of the survey. My analysis uses data from the fourth (NFHS-4) and fifth (NFHS-5) rounds conducted in 2015-16 and 2019-21, which also included a domestic violence questionnaire. The surveys provide information on an extensive variation of indicators at the district level. India follows a tiered division of administrative areas. The country is divided into states and union territories, which are then divided into districts[2]. The NFHS generates estimates at the district, state (and union territory and national levels. Each district is stratified into urban and rural areas in the survey samples to enumerate urban and rural level indicators. The 2011 Indian census serves as the sampling frame for selecting primary sampling units in both surveys. While NFHS-4 was conducted in all the 640 districts from the 2011 Census, sampling for NFHS-5 included 707 districts instead due to several border changes in the period between the two surveys. To maintain uniformity, I recoded the additional districts in NFHS-5 as

[2]Some states are first divided into 'divisions' and then into districts.

their parent district from which they were carved out corresponding to the Census data.

I use data collected from ever-married women aged 15-49, of which a smaller subsample of women were interviewed with questions concerning domestic violence. The age bracket for this sample was 15-49 in NFHS-4 and 18-49 in NFHS-5. I limited my sample to women selected and interviewed for the domestic violence module for all the analyses. Of a total sample size ranging over 1 million women (both ever- and never-married), 128,244 women were included in the domestic violence module. As mentioned previously, domestic violence is a sensitive question to study, and the NFHS is one of the few sources in India which provides data on it. Cullen (2023) suggests that potential causes for under-reporting of violence against women and domestic violence, in particular, could include a deep association with shame and stigma, or fear of repercussions due to perceived lack of anonymity. Estimates reported by the National Family Health Surveys combat these issues by ensuring privacy and autonomy for women respondents while they are being interviewed. However, as found by Cullen (2023), the estimates might still be under or misrepresentative of the actual incidence and attitudes since the interviews are conducted face-to-face, and reputational concerns might obstruct from eliciting true preferences and opinions.

My primary dependent variable is the justification of domestic violence by married women. Specifically, women are asked whether a husband is justified in "hitting or beating his wife" under the following situations:

1. she goes out without telling him
2. she neglects the house or the children
3. she argues with him
4. she refuses to have sex with him
5. she does not cook food properly
6. he suspects her of being unfaithful
7. she is disrespectful towards her in-laws

I created a dummy variable for the respondent's justification of domestic violence, which takes the value 1 if the respondent agrees to any or all of the situations above and 0 if she disagrees with all of them. In further robustness checks, I change the definition of this dummy variable.

My primary explanatory variable is whether a woman was related to her husband before marriage. The respondent was specifically asked, "Before you got married, was

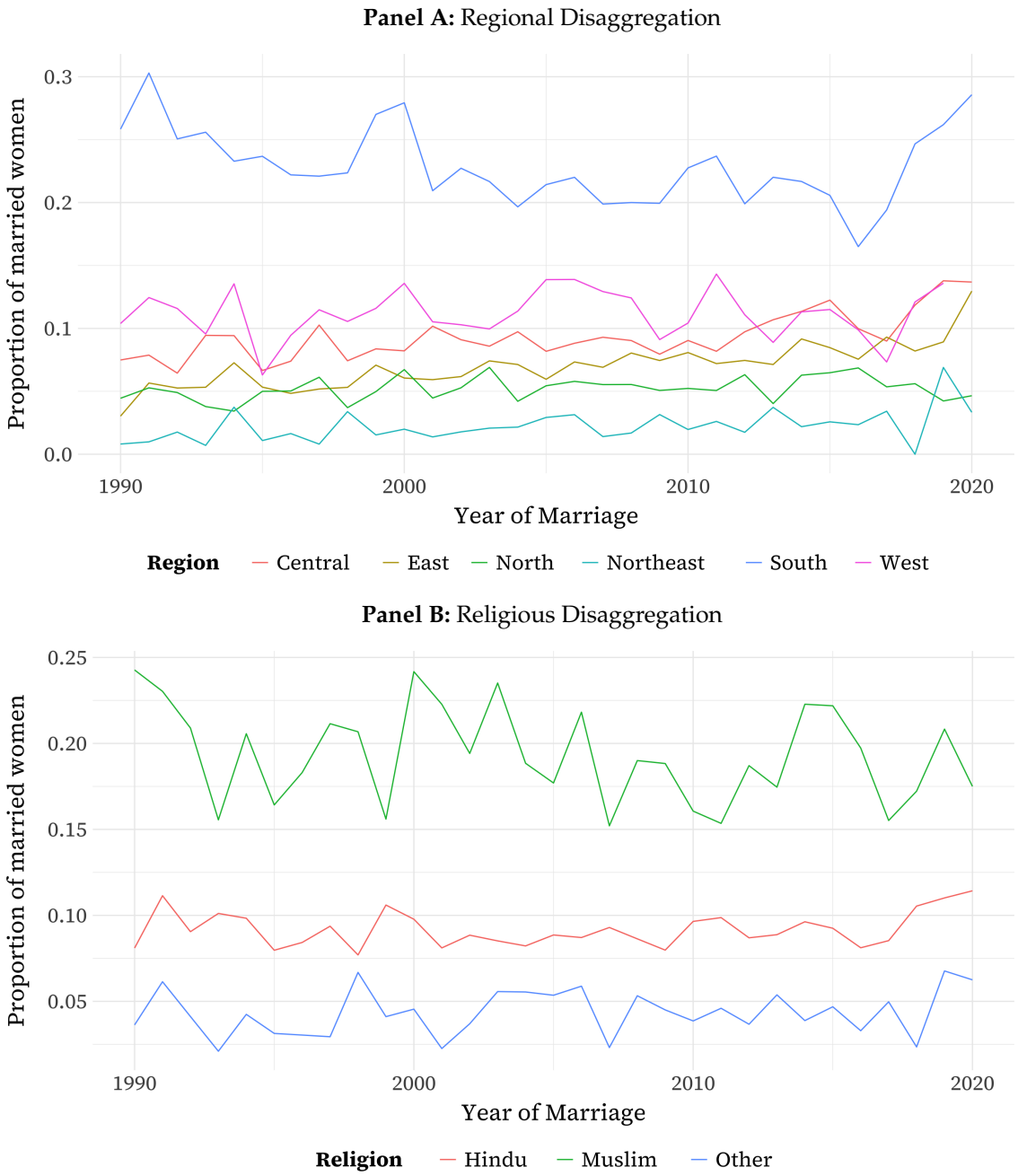
your (current) husband related to you in any way?". I also used information on the respondents' age, religion, caste/tribe, region, state and district of residence, area of residence (urban or rural), level of education, employment status, wealth indicator, ownership of some form of property (land or house), and whether the respondent has any children. The survey also collects data on the year of marriage and survey year, which I used to obtain the respondents' age at marriage. Further, I created a State and Union Territories variable with standardized names across the two surveys. Using the general division framework in the published survey reports, I group the states/union territories in six regions to analyze heterogeneous effects across regions later. The sensitivity of certain questions in the domestic violence questionnaire could have led to voluntary non-response. To avoid misinterpretation and maintain consistency in data cleaning, I drop the entire observation row if any variable of interest has a missing value. The results with imputed missing values are reported in the robustness section.

3.2 Descriptive Statistics

Beyond the overall trend plotted in Panel A of Figure 1, the religious and regional variations in the practice of within-family marriages in India are plotted in Figure 2's Panels A and B respectively. Panel A reflects the distinct variation in the practice of marrying within the family in different regions of India. Consanguineous marriages are most common in the Southern region, but the trend seems to be on a decline. On the other hand, while the other regions generally have low proportions, the practice appears to be on a rising trend. Additionally, Panel B highlights the religious distinction in the practice. A higher proportion of Muslim married women are in consanguineous marriages, and the overall trend is constant. The practice, however, shows a slight upward trend amongst non-Muslims. Chakraborty and Kim (2010) argue for the strong influence of regional and religious (among others) factors on the heterogeneity of kinship systems and their impact on women's autonomy. As such, the two factors also play an essential role in determining norms regarding within-family marriages and married women's attitudes.

Further statistics on important demographic indicators for all the respondents, grouped by within-family marriage status, are summarised in Table 5 of the Appendix. There are significant differences between women in consanguineous and non-consanguineous marriages. Notably, women in consanguineous marriages are younger, more likely to be Muslim or from Other Backward Classes (OBC). They are also more likely to be employed, own property and are, on average, wealthier. In line with previous evidence, women in consanguineous marriages are also more likely to justify domestic violence. However, husband's employment status or household type have no significant explanatory power over within-family marriage preference.

Figure 2: Trends in proportion of within-family marriages by region and religion



Note: The vertical axes show the proportion of all women married in a given year who were previously related to their husbands by blood. Panel A shows the regional variation in the trend, and Panel B shows the religious variation. In Panel B, *Other* includes Jains, Jews, Parsis, Sikhs, Buddhists, Christians, Atheists and other minority religions.
Source: National Family Health Surveys 2015-16, 2019-21

4 Method

4.1 Empirical Strategy

Understanding how marriage preferences impact attitudes towards domestic violence poses a critical empirical challenge since the two are strongly associated. To address this challenge, exogenous sources of variation in marital structures, which are also not

associated with attitudes, are required. Shifts in marital norms, which govern marital preferences and structures, provide such variation. These norms tend to be persistent, transmitted across generations (Dhar et al., 2019) and learnt within social structures (Bisin and Verdier, 2000). They do, however, experience transition periods in response to institutional or economic changes. Botticini and Siow (2003) and Bahrami-Rad (2021) both find evidence that institutional changes in inheritance arrangements lead to shifts in marriage patterns. Rosenzweig and Stark (1989) show that households in rural India modify their marital practices in response to economic distress.

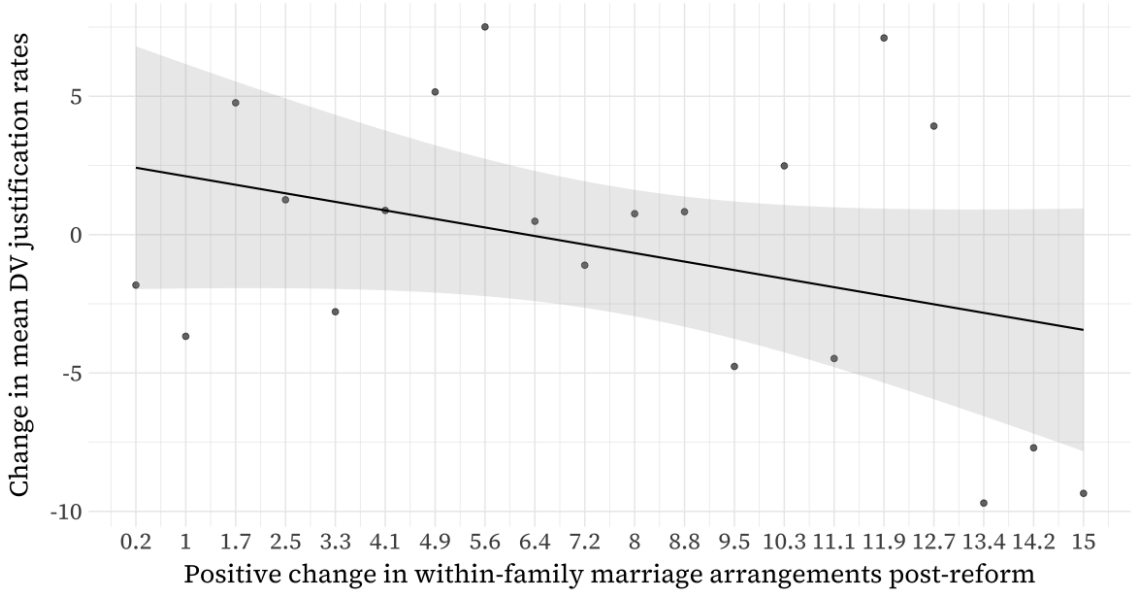
Bahrami-Rad (2021) used the Hindu Succession (Amendment) Act of 2005 as a source of institutional variation. The reform granted daughters in Hindu families equal inheritance rights, thus changing families' economic incentives and increasing the preference for within-family marriages. I take this evidence as motivation and examine whether districts[3] which responded to the reform shock also show systematic differences in how their attitudes towards domestic violence evolved. Figure 3 plots the magnitude of increase in within-family marriages post-reform (2005-2008 relative to 2002-2004) against the change in married women's mean domestic violence justification rates across the districts. While the fitted line shows a negative relation between the change in consanguinity prevalence and the change in mean domestic violence justification rates, the wide confidence intervals show uncertainty in this relationship. Moreover, the effects of the inheritance reform on consanguinity preference diminished after three years, making the reform an unsuitable shock for examining more sustained shifts. My empirical strategy builds on this evidence and examines whether longer-term changes in marriage preferences across communities can have a significant and meaningful influence on attitudes.

As indicated previously, while there is greater inclusion of the individual in the decision-making process, marriages in India continue to be arranged under parental and extended family authority (Allendorf and Pandian, 2016). It can thus be argued that shifts in marital norms induce changes in marital practices at a community level rather than at the individual level. In the Indian context, families tend to modify their preferences when practices in the communities to which they belong change. However, these responses are usually mediated through networks built on caste (Eswaran et al., 2013), region, or religion (Dyson and Moore, 1983; Jejeebhoy and Halli, 2005).

I use the change in average prevalence of within-family marriages over time to capture the shift in marital norms. This shift, as argued before, reflects changes in marriage arrangements at the community level. I calculate the percentage point difference in the average shares of consanguineous marriages occurring between 1990-2000 and

[3]Since the reform only impacted Hindu households, I filter out observations for other religions. In this context, the definition of a community reduces to districts rather than district-religion groups.

Figure 3: Post-reform Marriage Patterns and Domestic Violence Justification



Note: The vertical axis shows the change in mean domestic violence justification rates amongst married women (in pp). The horizontal axis values (in pp) are binned into 20 bins and show the change in rates of within-family marriage arrangements due to the inheritance reform.
Source: National Family Health Surveys 2015-16, 2019-21

2010-2020 in every community and plot them in a histogram shown in Figure 4[4]. I transform the difference values in two important ways. First, I carry out a 90% winsorization of the change values to limit the impact of outliers[5]. Second, the differences are adjusted for state-by-religion fixed effects to account for unobservable religion-specific characteristics in each state that are constant over time but vary across religious groups and, by extension, the prevalent communities. Since region and religion are the primary determinants of marital patterns (Jejeebhoy and Halli, 2005), accounting for variation along these two dimensions disentangles community-level changes from broader trends. This ensures that the remaining variation in marriage shares reflects changes in local community-level norms rather than systematic differences across regional or religious groups. Appendix Figure 20 also highlights the district-level variation in the change in consanguinity prevalence across religious groups. The considerable heterogeneity illustrated through the figure further supports the use of state-by-religion fixed effects and conducting the analysis at the community (district-religion) level.

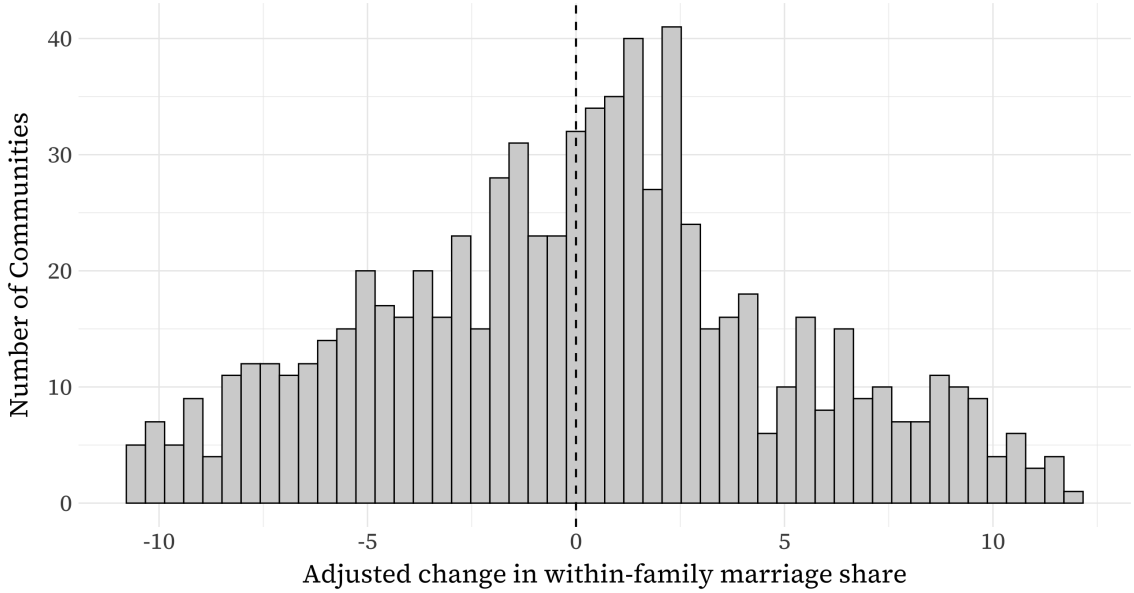
The validity of my identification strategy also requires that a shift in marital norms cannot impact married women's attitudes towards domestic violence directly. Instead,

[4]In Appendix Figure 12, I plot the combined histogram with fixed effects unadjusted, raw percentage point differences. I also group these community-level differences separately by State and Region, and plot the resulting histograms in Appendix Figures 13 and 15, respectively. Appendix Figures 14 and 16 show the corollary histograms adjusted for state-by-religion fixed effects.

[5]A non-winsorized histogram version is added in the Appendix.

the impact occurs through a change in marital arrangements. Granovetter (1985) crucially argued that an individual's behaviours and actions are "embedded" in and constrained by their social relations. Marriage arrangements construct frameworks that enforce distinct gender relations within families and between couples, thus shaping married women's attitudes. These frameworks include decision-making hierarchies and authority relationships (Rani et al., 2004) which influence women's post-marital experiences. Both Agarwal (1997) and Kabeer (1999) also reiterate how existing and interacting within a social structure such as a marriage critically determines women's self-perceptions. Changes in marital arrangements are particularly significant since specific arrangements determine unique networks through which norms and values are transmitted. When communities move away from a certain marital practice, their transmission channels also get impacted. Such a framework provides further support for examining marriage structures as the channel through which changes in marital norms might affect married women's attitudes towards domestic violence.

Figure 4: Histogram of fixed effects adjusted percentage point differences in share of within-family marriages on the community level



Note: The horizontal axis shows the winsorized percentage point differences in the share of within-family marriages between 1990-2000 and 2010-2020 cohorts adjusted for state-by-religion fixed effects. The vertical axis shows the count of communities for each change value.
Source: National Family Health Surveys 2015-16, 2019-21

Figure 4 shows the differential responses to a shift in marital norms across communities, which provide variation for my identification strategy. Since the latest NFHS publication reported that women in within-family marriages are relatively more likely to justify domestic violence, I decided to focus on the communities that saw an increase in the share of within-family marriages. Figure 17 in the Appendix also shows a systematic relationship between changes in marriage arrangements and the mean justi-

fication rates across the change spectrum. The sharp jump in the mean justification rates at the higher end of the positive change spectrum further supports my focus on positive changes for the primary analysis[6].

I define treatment status based on the change in the prevalence of within-family marriages following a marital norm shock. Communities that experienced a large change (above the 75th percentile) are considered treated, whereas those that experienced a modest change form the control group. Specifically, I create a dummy variable, $positive_change$, which takes the value 1 if the respondent got married in a community where state-by-religion adjusted change increased by more than 6.37 percentage points, and 0 otherwise[7]. This approach allows me to examine whether married women in communities that experienced more prominent changes in consanguinity prevalence also showed systematically different attitudes towards domestic violence.

I define a time dummy variable, $late_cohort$, which takes the value 1 if the respondent got married in a later cohort, i.e., between 2010-2020, and it takes the value 0 if the respondent got married in an earlier cohort, between 1990-2000. The choice of defining the later cohort starting from 2010 was to account for any possible effects of the 2005 inheritance reform discussed earlier. The evidence above also suggests that while marital norms tend to be persistent, some meaningful changes can occur over a longer period rather than through temporary fluctuations. Therefore, I allow for the years from 2001-2009 to act as a transitory period for meaningful norm shifts to occur[8]

Table 1 reports summary statistics for the sample based on treatment status. To recap, treatment refers to belonging to a community where the share of within-family marriages increased by more than 6.37 percentage points. There is significant regional and religious heterogeneity in how marriage arrangements changed across communities. A substantially higher share of women in treated communities resides in Southern India (39.9% vs 9.7% in control) compared to the other regions. Muslim respondents are also significantly more likely to belong to communities with large responses (23.4% vs 4.5%) compared to respondents from Hindu (70.0% vs 84.2%) and Other minority (6.6% vs 11.2%) religions. Caste composition also varies meaningfully- women in treated communities are significantly more likely to belong to Other Backward Classes (51.5% vs 39.6% in control) and less likely to be from Scheduled Castes (18.4% vs 20.0%) or Scheduled Tribes (9.7% vs 19.7%).

[6]I run a robustness check by limiting the focus to communities with a decrease in the share of within-family marriages.

[7]There were few communities where there had been no change in the share thus removing the possibility of comparing communities with positive change to those with no change at all. The other option would be to compare communities with positive change to the rest. I decided against choosing this definition for the primary analysis to avoid potential biases in the coefficient estimation. Results from this analysis have been added to the Appendix.

[8]I also provide results with no transition period and a longer one in the robustness section.

Table 1: Summary Statistics by Treatment Status

Characteristic	Control[1]	Treatment[1]	p-value[2]
Marriage Age			
Below 14	0.068 (0.252)	0.059 (0.237)	0.008
14-17	0.309 (0.462)	0.312 (0.463)	0.7
18-24	0.530 (0.499)	0.543 (0.498)	0.049
25-29	0.077 (0.266)	0.071 (0.257)	0.11
30-34	0.013 (0.112)	0.012 (0.108)	0.5
35-39	0.003 (0.053)	0.002 (0.049)	0.5
Above 40	0.001 (0.025)	0.001 (0.023)	0.7
Region			
Central	0.244 (0.430)	0.237 (0.425)	0.2
East	0.180 (0.384)	0.135 (0.342)	<0.001
North	0.238 (0.426)	0.087 (0.282)	<0.001
Northeast	0.123 (0.329)	0.040 (0.196)	<0.001
South	0.097 (0.296)	0.399 (0.490)	<0.001
West	0.118 (0.322)	0.102 (0.303)	<0.001
Religion			
Hindu	0.842 (0.364)	0.700 (0.458)	<0.001
Muslim	0.045 (0.208)	0.234 (0.423)	<0.001
Other	0.112 (0.316)	0.066 (0.248)	<0.001
Area of residence			
Rural	0.754 (0.430)	0.679 (0.467)	<0.001
Caste			
Other	0.207 (0.405)	0.204 (0.403)	0.5
OBC	0.396 (0.489)	0.515 (0.500)	<0.001
SC	0.200 (0.400)	0.184 (0.388)	0.002
ST	0.197 (0.398)	0.097 (0.296)	<0.001
Respondent's education level			
No education	0.294 (0.456)	0.286 (0.452)	0.2
Primary	0.134 (0.340)	0.130 (0.337)	0.5
Secondary	0.457 (0.498)	0.451 (0.498)	0.4
Higher	0.116 (0.320)	0.132 (0.339)	<0.001
Respondent's employment status			
Employed	0.267 (0.442)	0.277 (0.447)	0.081
Husband's education level			
No education	0.164 (0.370)	0.183 (0.387)	<0.001
Primary	0.140 (0.347)	0.145 (0.353)	0.3
Secondary	0.545 (0.498)	0.520 (0.500)	<0.001
Higher	0.151 (0.358)	0.151 (0.358)	0.9
Husband's employment status			
Employed	0.973 (0.162)	0.973 (0.163)	0.8
Wealth			
Poor	0.441 (0.497)	0.361 (0.480)	<0.001
Middle	0.200 (0.400)	0.231 (0.421)	<0.001
Rich	0.358 (0.479)	0.409 (0.492)	<0.001
Property ownership			
Does own house or land	0.355 (0.479)	0.380 (0.485)	<0.001
Household Type			
Nuclear	0.515 (0.500)	0.537 (0.499)	<0.001
Has children			
Yes	0.869 (0.338)	0.865 (0.341)	0.5
Outcome Variable			
Justifies domestic violence			
Justifies	0.354 (0.478)	0.501 (0.500)	<0.001
Observations	23,262	7,582	

[1]Mean (SD)
[2]Welch Two Sample t-test
Note: The p-values indicate the statistical significance of differences between the control and treatment group means.
Source: National Family Health Surveys 2015-16, 2019-21

Heterogeneity is also present along other socioeconomic characteristics. A significantly higher share of urban (32.1% vs 24.6%) and wealthier (Middle: 23.1% vs 20.0%; Rich: 40.9% vs 35.8%) respondents who own some form of property (38.0% vs 35.5%) belong to communities with a substantial increase in consanguinity prevalence. Respondents with a higher level of education (13.2% vs 11.6%) are significantly more likely to be married in treated communities. However, respondents with uneducated husbands (18.3% vs 16.4%) are more likely to be in communities where consanguinity becomes highly prevalent. Most notably, married women in treated communities are significantly more likely to justify domestic violence (50.1% vs 35.4%). These substantial differences in married women's observable characteristics across communities further underscore the importance of accounting for regional and religious effects in the analysis.

4.2 Model Specification

I use a difference-in-difference analysis to estimate the impact of a large increase in the prevalence of consanguinity on married women's tendency to justify domestic violence. The exact specification is the following:

$$\begin{aligned} JV_{ict} &= \alpha + \beta_1 positive_change_{ic} + \beta_2 late_cohort_{it} + \beta_3 (positive_change_{ic} \times late_cohort_{it}) \\ &\quad + \gamma_s + \gamma_r + \gamma_s \times \gamma_r + \mathbf{X}_{ict} + \epsilon_{ict} \end{aligned}$$

JV_{ict} refers to the justification of domestic violence by respondent i, who got married in one of the two cohorts t, and belongs to a community c. As argued earlier, religion and region play an important role in determining cultural practices. There is variation in the prevalence of consanguinity and justification of domestic violence both between and within regions. Hence, I include state fixed effects, γ_s to account for the time-invarying and unobservable state and region-level differences. Furthermore, γ_r includes religion fixed effects controlling for the time-invariant practices that differ between religions, thereby only allowing variation within religions. Previous research (Bahrami-Rad, 2021; Jejeebhoy and Halli, 2005; Acharya and Sahoo, 2021) also points to cultural differences, for instance, between Hindus in the South and North of India. There are, thus, region-specific religious differences that also need to be considered. Following Bahrami-Rad (2021), I also include state-by-religion fixed effects, $\gamma_s \times \gamma_r$, to control for more state-specific time-invariant characteristics across religious groups.

$\mathbf{X}_{ict}$ is a vector of relevant control variables added sequentially in the model. These controls include age at marriage, rural/urban area of residence, respondent's level of education (no education, primary, middle or secondary), respondent's employment status (employed or unemployed), wealth level (poor, middle or rich), respondent's ethnicity, whether the respondent owns some kind of property in house or land (alone,

jointly or both), respondent's husband's level of education (no education, primary, middle or secondary) and employment status (employed or unemployed), whether the respondent lives in a nuclear family and whether the respondent has children.

In the specification, β_3 is my primary coefficient of interest. It denotes the effect of getting married later (i.e., 2010-2020) within a community where the prevalence of within-family marriages increased relatively more. To reiterate the primary identifying assumption- conditional on state-by-religion fixed effects, in the absence of a significant positive change in the share of within-family marriages over time, the difference in domestic violence justification rates would not have changed significantly between the communities with a large and moderate increase. Any statistically significant change in justification rates can, thus, be attributed to a change in the prevalence of consanguinity arising through a shift in marital norms. Table 2 provides evidence for the parallel trends assumption in the pre-treatment period by regressing mean domestic violence justification rates on an interaction term of marriage year and treatment status. Figure 19 in the Appendix also plots the difference in the evolution of justification rates between the treatment and control groups between 1990-2000. Both show that the parallel trends assumption holds, i.e., the communities where the consanguinity prevalence increased by a large amount compared to those with a moderate increase had similar evolution in domestic violence attitudes before the shift in marital norms occurred.

Table 2: Parallel Trends Test

Marriage_year	-0 .001
	(0 .002)
Positive_change	-0 .507
	(6 .384)
Marriage_year×Positive_change	0 .0003
	(0 .003)
Constant	3 .035
	(4 .514)
Observations	22
R2	0 .925
Adjusted R2	0 .912
Residual Std. Error	0 .024
	(df = 18)
F Statistic	73 .784***
	(df = 3; 18)

Note: *p<0.1; **p<0.05; ***p<0.01

Note: The dependent variable is the share of married women justifying domestic violence.
Source: National Family Health Surveys 2015-16, 2019-21

5 Results

5.1 Main Results

Before discussing the main results from the difference-in-difference analysis, I show the result from a fixed effects OLS regression in Table 3a. I regressed the domestic violence justification rates on a binary indicator, $WF_marriage$, which is 1 if the woman was related to her husband by blood before marriage and 0 otherwise. The result shows that a woman in a consanguineous marriage is more likely to justify domestic violence. However, the simple regression analysis does not address selection at the individual level. Women in consanguineous marriages might be systematically different in their attitudes compared to those in non-consanguineous marriages. My strategy improves upon the selection concern by using community-level variation. Instead of comparing the attitudes of individual women based on their marriage type, I examine how domestic violence justification rates evolved between communities based on the magnitude of change in their marriage arrangements.

Table 3a: OLS regression results of within-family marriage on DV justification rates

Model:	(1)	(2)	(3)	(4)
WF_marriage	0.1638***	0.1486***	0.0400***	0.0321***
	(0.0050)	(0.0050)	(0.0069)	(0.0077)
Controls	No	Yes	No	Yes
Fixed-effects				
State	No	No	Yes	Yes
Religion	No	No	Yes	Yes
State-Religion	No	No	Yes	Yes
Fit statistics				
Squared Correlation	0.00980	0.03474	0.11209	0.13103
Observations	107,530	107,530	107,530	107,530

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence. The regression result includes all controls, as explained in the model specification section.
Source: National Family Health Surveys 2015-16, 2019-21

In Table 3b, I also report the fixed effects OLS regression results where I regress the domestic violence justification rates on positive adjusted change values as defined previously. Focusing on Column (4) with all the controls and fixed effects, married women in communities where consanguinity prevalence increased show an insignificant increase in their justification of domestic violence.

Table 4 reports the difference-in-difference estimates of the tendency to justify domestic violence amongst respondents who got married later (2010-2020) and belong to communities where marital preferences changed considerably. The table reports results from four models. Models (1) and (2) report estimates without additional controls in the regression specification. Model (3) reports estimates after accounting for

Table 3b: OLS regression results of positive adjusted change on DV justification rates

Model:	(1)	(2)	(3)	(4)
Positive_change	0.0245***	0.0240***	0.0023	0.0019
	(0.0010)	(0.0010)	(0.0020)	(0.0020)
Controls	No	Yes	No	Yes
Fixed-effects				
State	No	No	Yes	Yes
Religion	No	No	Yes	Yes
State-Religion	No	No	Yes	Yes
Fit statistics				
Squared Correlation	0.01957	0.04150	0.11361	0.13353
Observations	30,844	30,844	30,844	30,844

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence. The regression result includes all controls, as explained in the model specification section.
Source: National Family Health Surveys 2015-16, 2019-21

the various controls but without any fixed effects. Model (4) is the primary specification which reports the main estimates that I will discuss. As evidenced by the squared correlation values, the models with fixed effects show a better fit compared to those without, suggesting that state and religion controls capture important variations in attitudes.

In all the models, β_3 is not statistically significantly different from zero. This implies that the propensity to justify domestic violence was not significantly different between married women in communities where the prevalence of consanguinity increased substantially and those where the prevalence increased more moderately. Focusing on Model (4), getting married later in a treated community is, on average, associated with a 0.8% increase in domestic violence justification rates. However, 95% confidence intervals corresponding to β_3 cannot rule out relatively high effect sizes ranging from a 1.2% decrease to a 2.8% increase in the propensity to justify domestic violence. There is also no statistically significant effect of getting married within a treated community. Getting married later is associated with a substantial 2.19% decline in the rate of domestic violence justification, i.e., later-born married women are less likely to condone wife-beating.

I also conduct a triple difference analysis where I interact individual women's consanguinity status with community-level treatment and cohort indicators. Table 13 reports the triple difference results. The null result against the primary DDD coefficient ($Positive_change \times Late_cohort \times WF_marriage$) suggests that community-level changes impact married women's attitudes similarly regardless of their marriage type- this further supports the use of a community-level treatment rather than individual marriage arrangements.

Table 4: Effects of change in share of within-family marriages on DV justification rates

Model:	(1)	(2)	(3)	(4)
Positive_changexLate_cohort	-0.0111	0.0025	-0.0071	0.0081
	(0.0128)	(0.0109)	(0.0127)	(0.0101)
Positive_change	0.1518***	-0.0017	0.1461***	-0.0056
	(0.0088)	(0.0117)	(0.0088)	(0.0121)
Late_cohort	-0.0581***	-0.0537***	-0.0221***	-0.0219***
	(0.0063)	(0.0059)	(0.0076)	(0.0063)
Age at Marriage			-0.0004	-0.0019**
			(0.0008)	(0.0008)
Residence Area: Urban			-0.0161**	-0.0410***
			(0.0070)	(0.0076)
Household Type: Non-nuclear			-0.0069	0.0078
			(0.0059)	(0.0046)
Has children			-0.0052	-0.0102
			(0.0085)	(0.0075)
Resp_education: primary			-0.0119	-0.0175**
			(0.0094)	(0.0076)
Resp_education: secondary			-0.0188**	-0.0408***
			(0.0081)	(0.0083)
Resp_education: higher			-0.0747***	-0.1115***
			(0.0128)	(0.0115)
Resp_employment: employed			0.0459***	0.0146*
			(0.0063)	(0.0078)
Wealth level: middle			0.0069	-0.0257**
			(0.0076)	(0.0105)
Wealth level: rich			-0.0352***	-0.0530***
			(0.0080)	(0.0164)
Caste: OBC			0.0611***	0.0027
			(0.0075)	(0.0103)
Caste: SC			0.0605***	0.0244***
			(0.0089)	(0.0086)
Caste: ST			0.0069	0.0131
			(0.0094)	(0.0117)
Owns house or land			0.0407***	0.0123*
			(0.0057)	(0.0064)
Husb_employment: employed			-0.0462***	-0.0459
			(0.0169)	(0.0276)
Husb_education: primary			-0.0125	0.0044
			(0.0101)	(0.0097)
Husb_education: secondary			-0.0254***	0.0012
			(0.0088)	(0.0090)
Husb_education: higher			-0.0587***	-0.0326**
			(0.0122)	(0.0134)
Constant	0.3819***		0.4194***	
	(0.0044)		(0.0246)	
Fixed-effects				
State	No	Yes	No	Yes
Religion	No	Yes	No	Yes
State-Religion	No	Yes	No	Yes
Fit statistics				
Squared Correlation	0.02069	0.11643	0.03906	0.13372
Observations	30,844	30,844	30,844	30,844

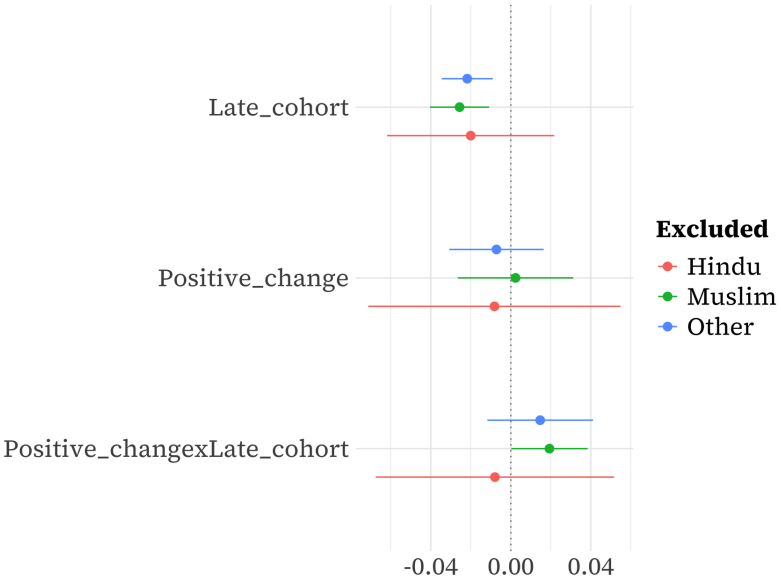
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable in both the models is the share of married women justifying domestic violence. Models (1), (2), (3) and (4) report the difference-in-difference estimates for all regions. Models (1) and (2) report estimates without additional controls. Model (3) reports estimates with the controls but without the fixed effects.
Source: National Family Health Surveys 2015-16, 2019-21

5.2 Heterogeneity Analysis

Previous literature hints at the heterogeneous impacts of varying factors on both consanguinity and attitudes towards domestic violence. I conduct simple leave-one-out analyses to test whether any one sub-group drives the null results. Using theoretical evidence and results from a Lasso regression (*see* Table 6), I choose region, religion, respondent's education, wealth, and area of residence as the most relevant predictors. Most analyses yield null results consistent with the main findings (detailed results are presented in Appendix Tables 15-19). A notable exception is the statistically significant β_3 when the analysis is carried out without the Muslim sub-group. Model (2) in Appendix Table 16 (and Figure 5) shows that dropping Muslim respondents from the analysis leads to a significant 1.9% increase in respondents' justification of domestic violence. However, this result should be interpreted cautiously. The significance is modest at 5% and likely an outlier amidst the consistent null findings across other specifications. The small sample size of the Other minority religious groups might also affect precision. Therefore, while religious composition might have some influence, overall evidence supports the null findings of the main results.

Figure 5: Leave one-out analysis: Religion



Note: The dependent variable is the share of married women justifying domestic violence.
Source: National Family Health Surveys 2015-16, 2019-21

5.3 Discussion

Depending upon the household and neighbouring community-specific characteristics and a woman's status within her natal family, consanguineous marriages can impact her bargaining power in two opposing ways.

- She might either face a decline in bargaining power if she belongs to a traditionally patriarchal and norms-conservative household and community, making her more likely to accommodate violent spousal behaviour and even justifying it, or,
- She might enjoy better bargaining power than women married outside their natal family, possibly due to the sharing of close kinship bonds. Women in these marriages might be less prone to both becoming victims of and justifying domestic violence.

Furthermore, post-marriage migration patterns can also determine women's autonomy and, consequentially, attitudes towards domestic violence. Chatterjee and Desai (2021) find that these patterns, rooted in both norms and physical communities, significantly impact the availability of post-marital opportunities for women and their bargaining power. In consanguineous marriages, the distance, not exclusively physical, between a woman and her natal family members is much lower than that for women who marry outside the family. However, for women who marry outside the family and migrate away from their natal households, the additional impact of distance on their bargaining power would further depend on the norms practised within their in-laws' communities. In both situations, the presence of external support systems can acutely determine a married woman's willingness to seek help in cases of abuse (Aizer and Dal Bo, 2009). A lack of such safety nets predicts continued acceptance and justification of domestic violence.

While the channels above provide potential mechanisms, I cannot formally test them since the NFHS does not collect data on married women's natal family indicators. As mentioned above, even though women in within-family marriages are essentially a part of the same family, they usually migrate to another household post-marriage, further emphasizing the need for more extensive data. Nevertheless, my results indicate that a shift in marital norms captured through a change in the prevalence of intra-family marriages across communities has no significant impact on married women's tendency to justify domestic violence. The null results reveal the persistence of attitudes towards domestic violence regardless of marriage type. These results broadly highlight the stickiness of norms associated with violence against women and are in accordance with the substantial domestic violence justification rates specified in the latest NFHS reports. The persistence of these perverse social norms continues

to propagate undesirable beliefs and gender stereotypes, stigmatizing the identity of women and restricting their freedom and development.

Dube (1997) underscores the considerable influence kinship systems and the extended family have on women's lives. These systems are also often "the most change-resistant aspects of social organization". In such intertwined and patriarchal collectivist societies, there is substantial room created for the normalization and internalisation of domestic violence and, eventually, its justification by the victims (Abadeer, 2015). Domestic abuse finds legitimization in societies that practice gendered distribution of power and resources, which further increases the general and enduring propensity to justify such abuse. These societies are also highly likely to condone domestic violence as a "private family matter", essentially reinforcing power imbalances and the victim's lack of security (Zuckerhut, 2011). This makes women's safety within a marriage even more critical. Therefore, the main null result in this study is also critical from a policy perspective as it shuts down one potential channel which could have determined domestic violence justification rates.

5.4 Robustness Checks

I made several choices of variables and thresholds to conduct the main empirical analysis. Hence, I also conducted extensive robustness checks to ascertain the stability of the main results. To visualize the results of the checks, I present coefficient plots limited to the primary coefficients- $Late_cohort$, $Positive_change$, and $Positive_change \times Late_cohort$. I provide the full regression tables in the Appendix for detailed reference.

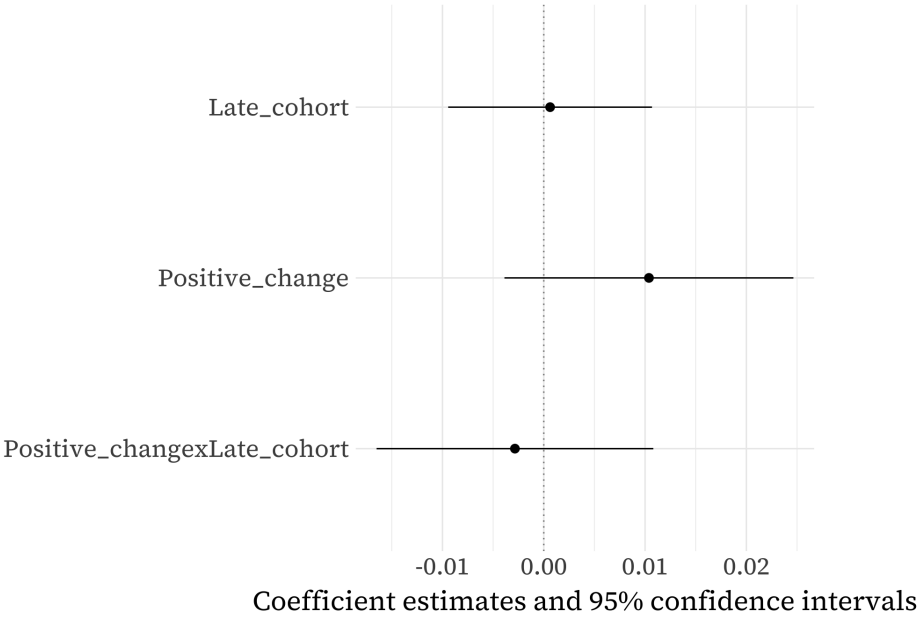
5.4.1. Redefining the domestic violence justification dummy

In the main analysis, jv_{idt} takes a value 1 if the respondent agrees with any of the domestic violence situations mentioned above and 0 if she disagrees with all of them. Here, I use a stricter definition where jv_{idt} is 1 if the respondent agrees with all the situations and 0 otherwise. This is a narrower operationalization of the acceptance of domestic violence. The coefficients are plotted in Figure 6 with the primary DiD coefficient remaining statistically insignificantly different from zero.

5.4.2. Changing treatment assignment cut-offs

The main analysis uses the 75th percentile treatment cut-off to capture relatively large changes. However, there can be potential concerns with this arbitrary cut-off choice. Hence, I run the main analysis with several other threshold cut-offs, all of which yield null results. The main coefficients for all the models are plotted in Figure 7. The robustness of the results implies that effects are not being muted by choosing a specific

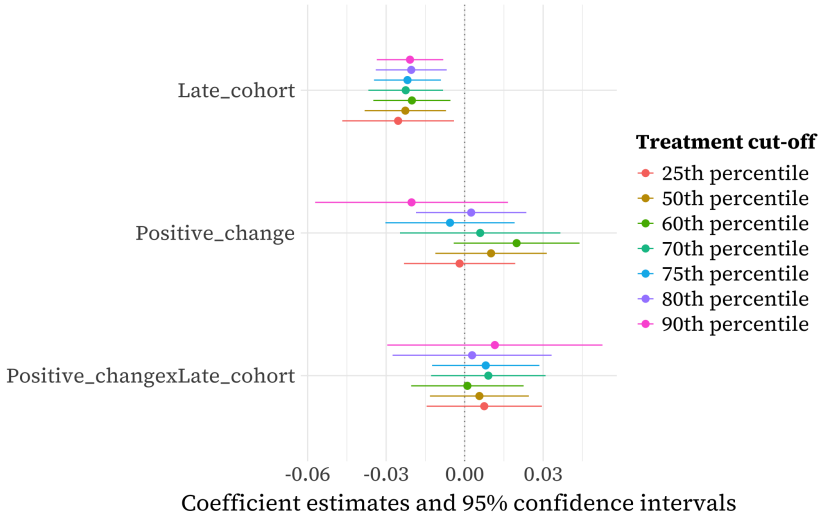
Figure 6: Redefining the domestic violence justification dummy



Note: The dependent variable is the share of married women justifying domestic violence.
Source: National Family Health Surveys 2015-16, 2019-21

cut-off value. Rather, marriage pattern changes do not influence married women's attitudes.

Figure 7: Effects of different treatment assignment cut-offs



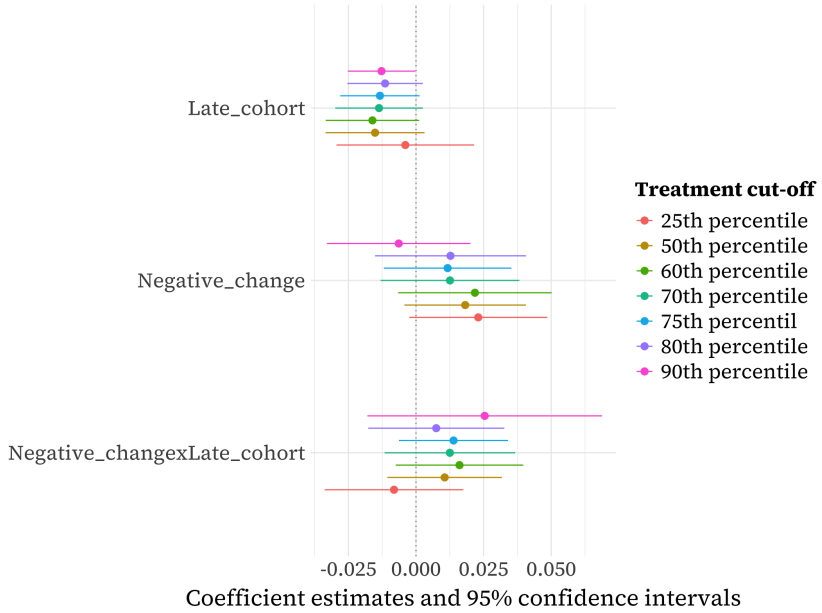
Note: The dependent variable is the share of married women justifying domestic violence.
Source: National Family Health Surveys 2015-16, 2019-21

5.4.3. Changing treatment assignment definition - Restricted Sample

In the main analysis, I define treatment assignment by limiting the sample to positive values of adjusted change in the share of within-family marriages. Here, I instead restrict the sample to negative values. I also focus on a range of treatment assignment

cut-offs similar to those mentioned above. The coefficients from the regression models are plotted in Figure 8. The null effects continue to persist. Interestingly, effect directions with the negative treatment definition are the same as those with the positive one. Getting married later in communities that saw a large decline in the prevalence of within-family marriages is also associated with increased justification rates. This finding holds in almost all the thresholds except the 25th percentile cut-off. In general, this provides further support that marriage pattern changes cannot systematically impact attitudes.

Figure 8: Effects of negative treatment dummy with different assignment cut-offs



Note: The dependent variable is the share of married women justifying domestic violence.
Source: National Family Health Surveys 2015-16, 2019-21

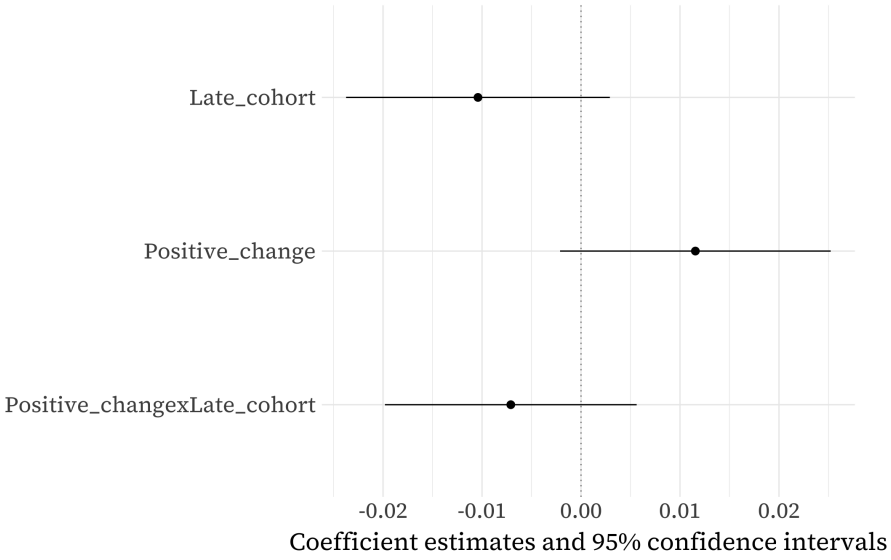
5.4.4. Changing treatment assignment definition - Full sample

In this robustness check, my treatment dummy $positive_change$ takes the value 1 for positive values of adjusted change and 0 otherwise. Communities where the prevalence of within-family marriages increased are treated, and those where the prevalence remained unchanged or declined are in the control group. Even with the inclusion of the entire sample and capturing broader variation, the results remain insignificant (*see* Figure 9), indicating that the previous null results are not an outcome of specific design choices.

5.4.5. Changing treatment assignment definition: Treatment intensities

Another concern with the current methodology is that the treatment is a binary variable that might mask crucial heterogeneity in attitude responses. Hence, I create intensity categories based on the magnitude of change across all communities. Specific-

Figure 9: Effect of including the full sample in the analysis



Note: The dependent variable is the share of married women justifying domestic violence.
Source: National Family Health Surveys 2015-16, 2019-21

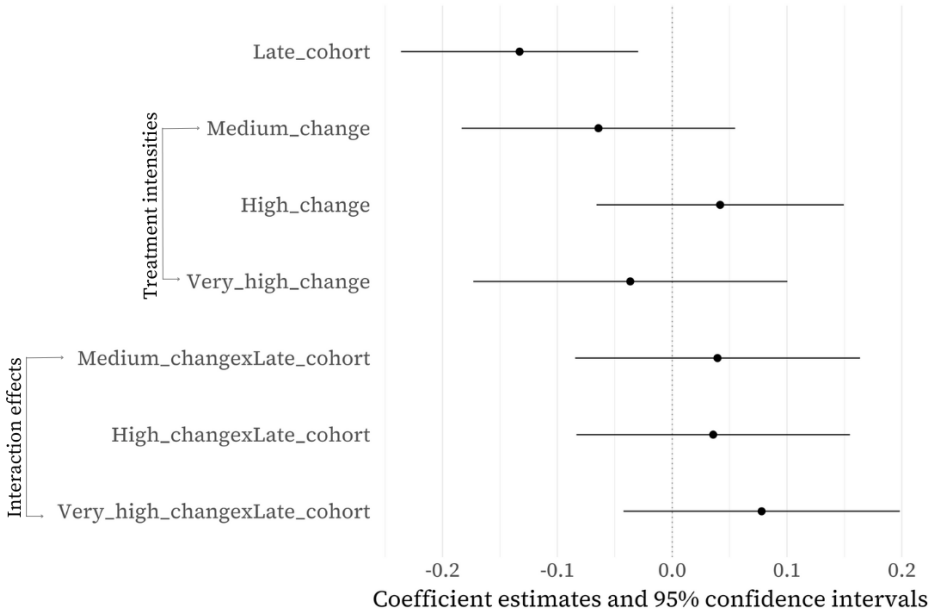
ally, I create four groups based on percentile ranges: Low (0 - 25th percentile), Medium (25th - 50th percentile), High (50th - 75th percentile), and Very High (75th - 100th percentile). I consider communities with low positive change as my control group and examine if communities with higher positive changes show differential responses. As evident in Figure 10, the null results also persist in this analysis. This provides support by showing that the lack of an effect is not generated by how a large change in marriage patterns is chosen to be defined.

5.4.6. Redefining the time dummy

The choice of time periods impacts the definition of cohorts and the measurement of marriage pattern changes. In definition 1, I allow for a considerable transition period for a shift in marital norms to occur and focus on sharper changes in marriage patterns between 2015-2020 and 1990-1995. In definition 2, on the other hand, I remove any transition period and capture a more continuous evolution of marriage patterns (2005-2020 vs 1990-2004). The persistence of null results under both definitions is important on two counts- first, they provide additional support for the main findings, and second, they address a potential identification concern with using arbitrary adjustment period definitions.

The persistent null findings across multiple robustness specifications bolster the main results and address some methodological concerns. Testing alternative definitions of domestic violence justification highlights that the impact of changes in marriage patterns is independent of how deeply held beliefs about domestic violence might be. The

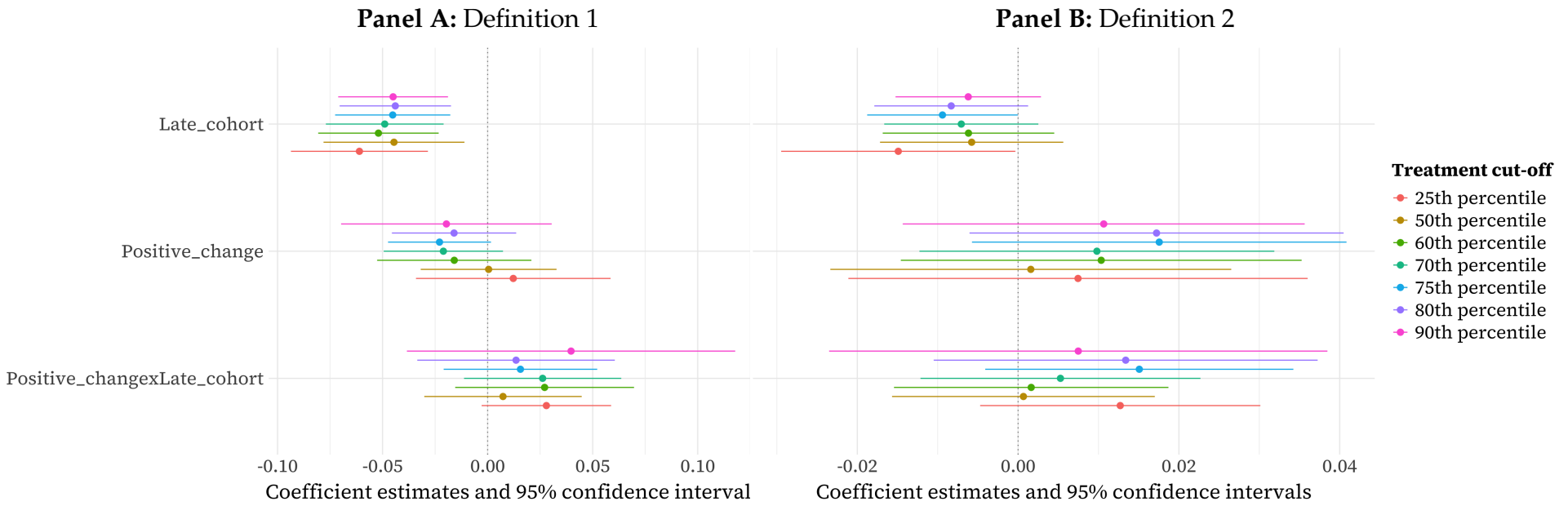
Figure 10: Effects of different treatment assignments



Note: The dependent variable is the share of married women justifying domestic violence.
Source: National Family Health Surveys 2015-16, 2019-21

null findings, when examining both increases and decreases in the share of within-family marriages with different threshold cut-offs, and from the full-sample analysis, show that sample selection is not driving the main results. Furthermore, the intensity analysis shows that the lack of significant results is not driven by treatment categorization. Finally, the robustness with varying temporal analyses suggests that the lack of a significant impact is not an artefact of how I measure change or allow for norm adjustment. Additional analysis with imputed missing values (as detailed in the Appendix) also yields null results, indicating that the main results are not caused by systematic non-response. Altogether, these results suggest that a relationship between marriage patterns and married women's attitudes towards wife-beating is much more nuanced. Changes in marriage preferences, even when sustained and substantial, seem incapable of shifting attitudes.

Figure 11: Effects under different definitions of time periods



Note: The dependent variable is the share of married women justifying domestic violence.
Source: National Family Health Surveys 2015-16, 2019-21

6 Conclusion

Indian women continue to grapple with gender-based violence both inside and outside the household. Along with being an abuse of human rights, violence against women has steep economic costs (Caspani, 2024). I look at domestic violence in particular because of its high incidence and continued social acceptance, both among men and women. Understanding the causes behind the justification of wife-beating, especially amongst married women, is therefore crucial. This paper examines whether changes in marriage practices, elicited by a shift in marital norms, have an impact on married women's attitudes towards domestic violence.

This research primarily draws on two aspects of the Indian society. First, married women in India are highly likely to justify domestic violence, which previous research has found to impact the actual incidence of such violence (Jewkes, 2002). Second, about 1 in every 10 marriages in India was arranged between people related by blood, and women within these marriages were much more likely to justify wife-beating (International Institute for Population Sciences (IIPS) and ICF, 2021). Using variation in within-family marriages over time, I find no evidence linking shifts in marriage practices to changes in attitudes. The null results persist across varying specifications, sample and measurement choices, and treatment definitions, increasing support for the main results.

While changes in marriage practices can affect other aspects of women's lives, they have an insignificant impact on attitudes. These findings underscore that attitudes have deeper social roots and tend to persevere even through significant changes in marriage arrangements. These results have important policy implications as they shut down one potential channel that could impact domestic violence. Policies aimed at reducing domestic violence might, hence, need to affect these attitudes directly through increasing awareness, for instance, rather than relying on indirect channels.

This paper addressed the empirical puzzle posed by the two opposing channels through which consanguineous marriages can impact married women's acceptability of domestic violence. While the NFHS provides extensive information on marriage patterns and domestic violence indicators, it does not collect data on married women's natal family indicators. The data provided allows for research using realized marriage patterns rather than implicit preferences, which constrains the ability to examine the relative strengths of all potential mechanisms.

The findings and limitations highlighted above provide scope for future research. Studying natal family networks and marriage preferences can shed more light on how family structures influence the internalization of socially acceptable attitudes. Limited

observations exist on the nature of the relationship shared between a consanguineous couple before marriage. Further research could also explore whether there is potential heterogeneity in women's justification rates based on their proximity to their husbands before marriage. Understanding how marriage arrangements affect attitudes is challenging, particularly in a context where cultural practices and individual preferences are deeply intertwined.

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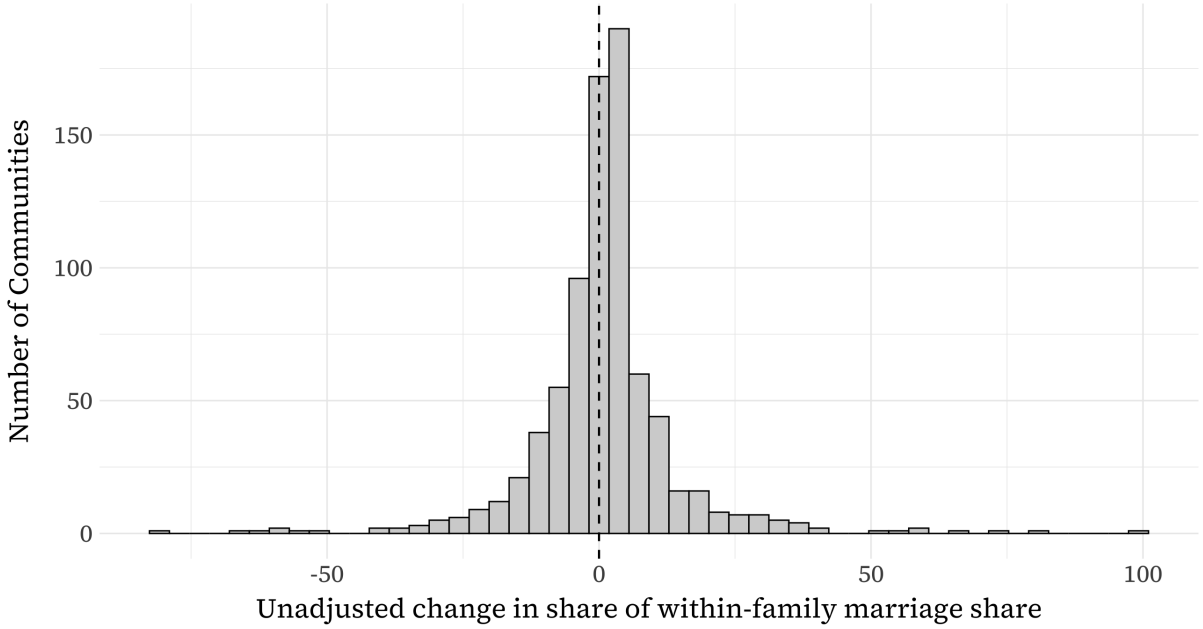
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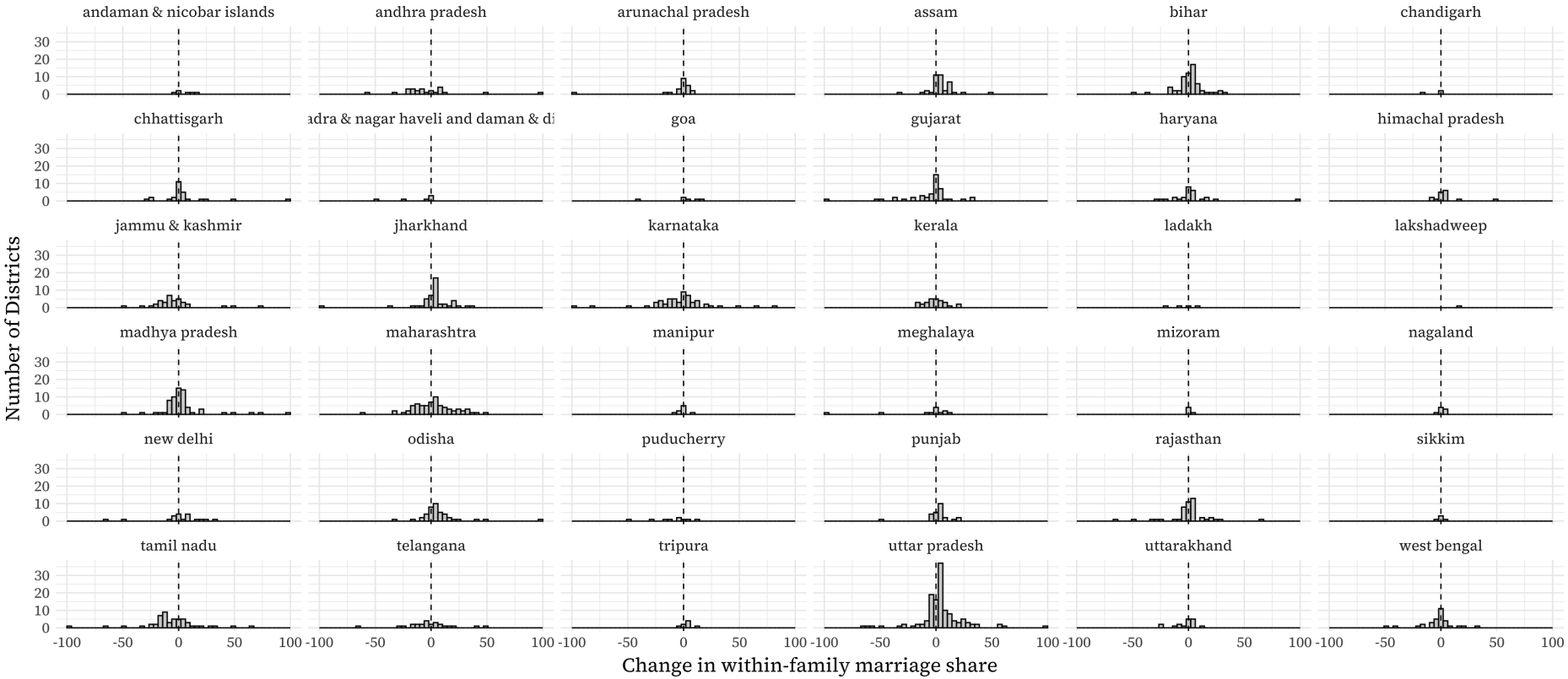
Appendix

Figure 12: Histogram of fixed effects unadjusted percentage point differences in the share of within-family marriages on the community level



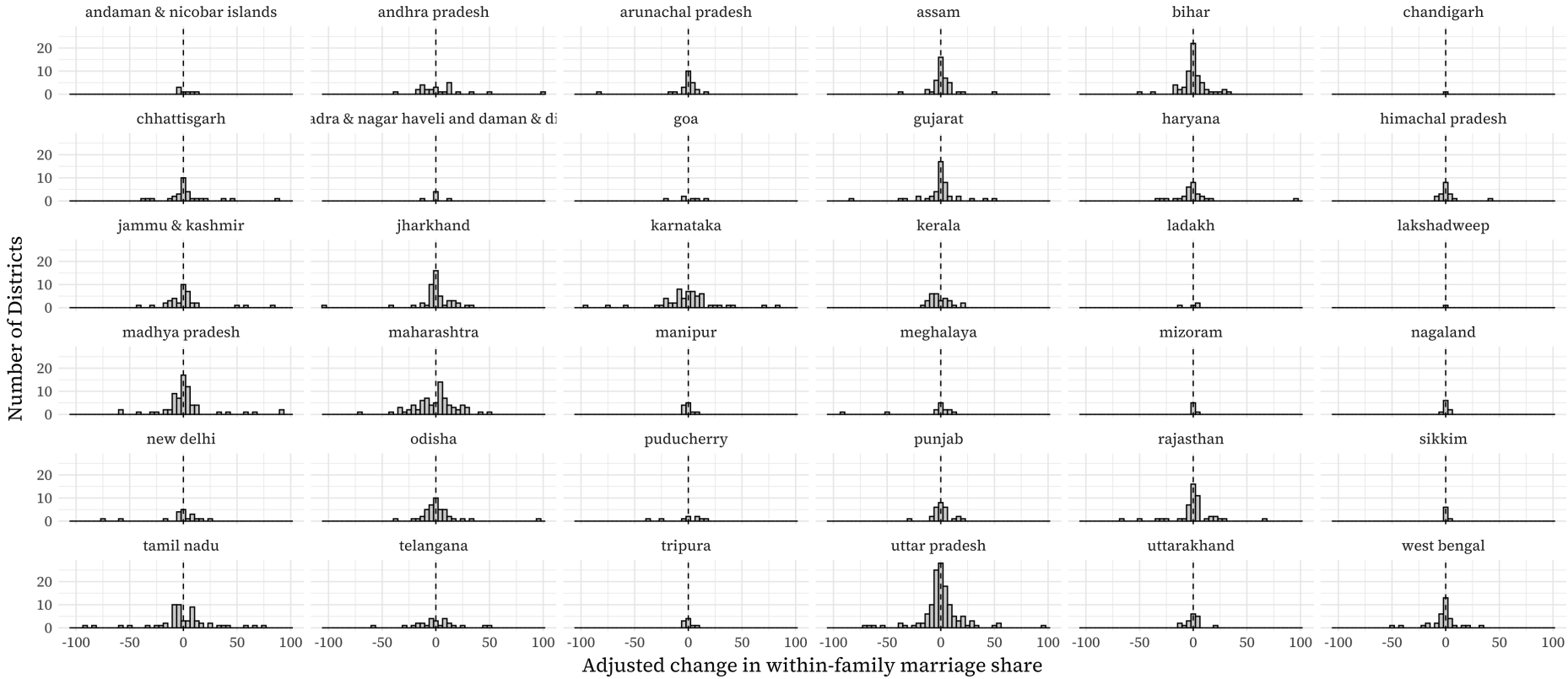
Note: The horizontal axis shows the unadjusted percentage point differences in the share of within-family marriages between 1990-2000 and 2010-2020 cohorts. The vertical axis shows the count of communities for a given change value.
Source: National Family Health Surveys 2015-16, 2019-21

Figure 13: Statewise disaggregation of unadjusted change in within-family marriage share



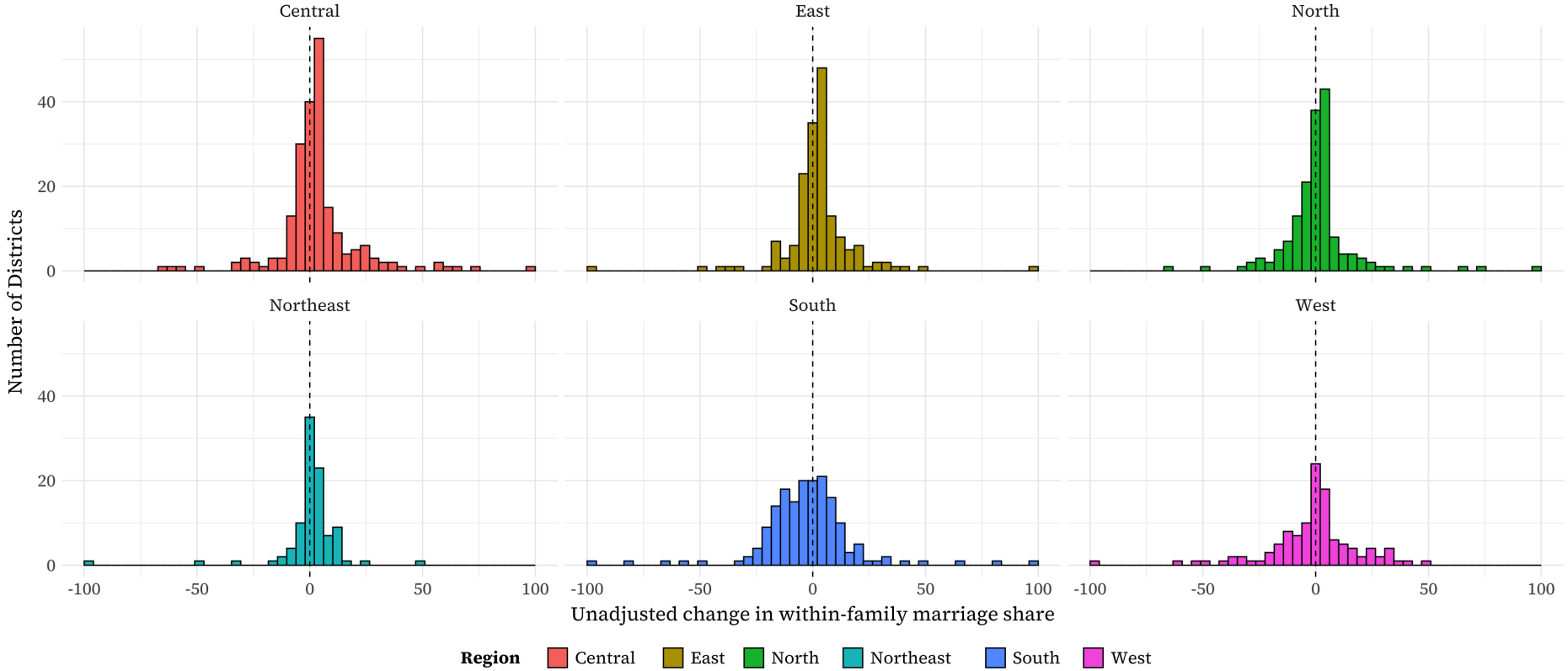
Note: The horizontal axis shows the unadjusted percentage point differences in the share of within-family marriages between 1990-2000 and 2010-2020 cohorts. The vertical axis shows the count of communities for a given change value.
Source: National Family Health Surveys 2015-16, 2019-21

Figure 14: Statewise disaggregation of adjusted change in within-family marriage share



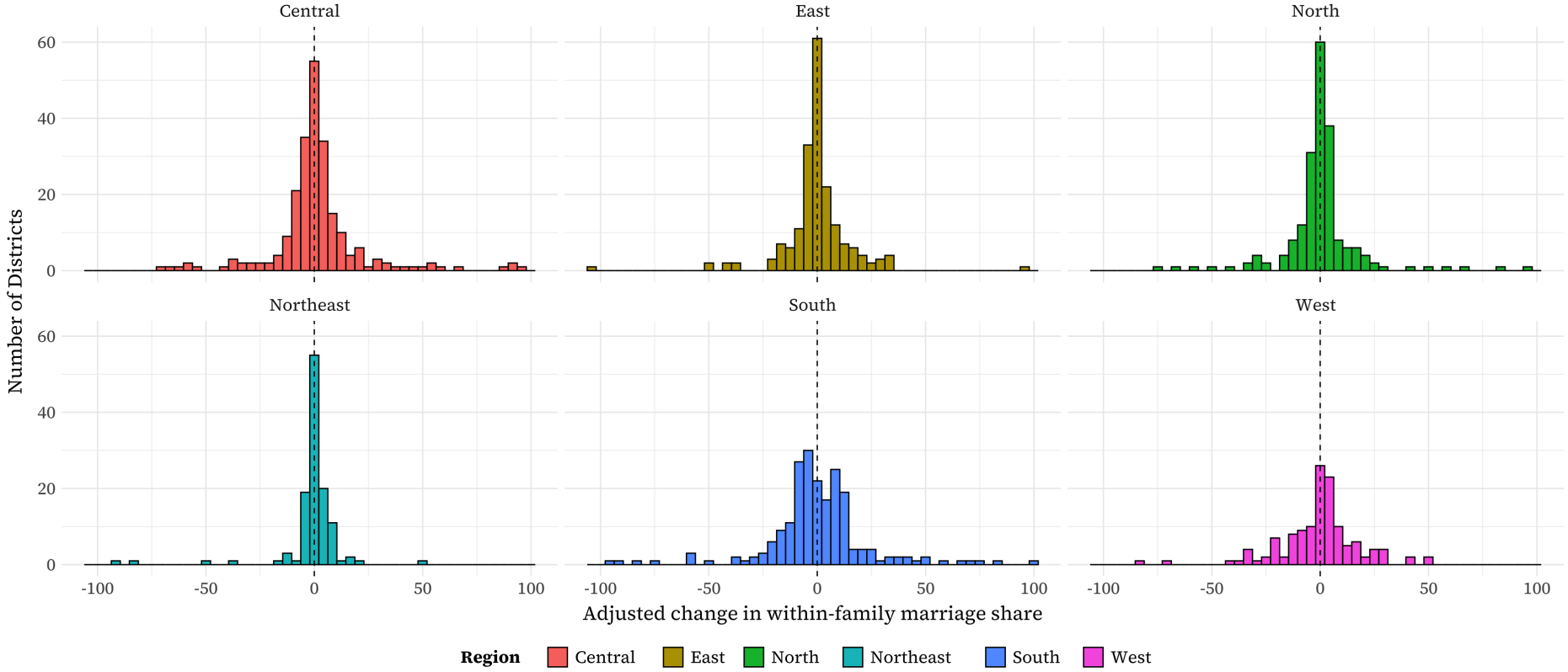
Note: The horizontal axis shows the adjusted percentage point differences in the share of within-family marriages between 1990-2000 and 2010-2020 cohorts. The vertical axis shows the count of communities for a given change value.
Source: National Family Health Surveys 2015-16, 2019-21

Figure 15: Regional disaggregation of unadjusted change in within-family marriage share



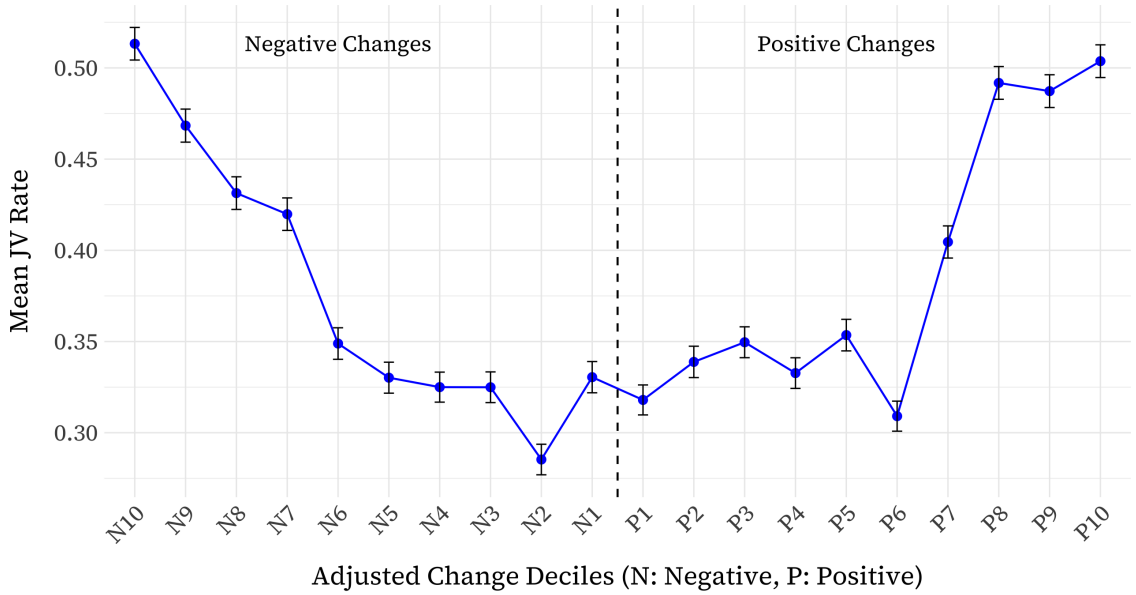
Note: The horizontal axis shows the unadjusted percentage point differences in the share of within-family marriages between 1990-2000 and 2010-2020 cohorts. The vertical axis shows the count of communities for a given change value.
Source: National Family Health Surveys 2015-16, 2019-21

Figure 16: Regional disaggregation of adjusted change in within-family marriage share



Note: The horizontal axis shows the adjusted percentage point differences in the share of within-family marriages between 1990-2000 and 2010-2020 cohorts. The vertical axis shows the count of communities for a given change value.
Source: National Family Health Surveys 2015-16, 2019-21

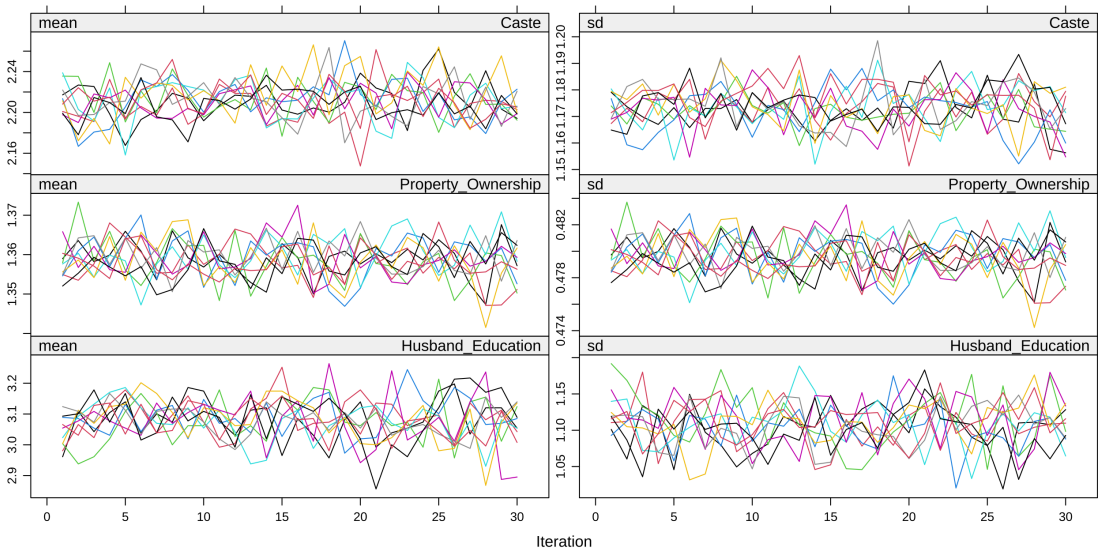
Figure 17: Mean domestic violence justification rates across change spectrum



Note: The horizontal axis shows deciles of the adjusted percentage point differences in the share of within-family marriages between 1990-2000 and 2010-2020 cohorts. *Source:* National Family Health Surveys 2015-16, 2019-21

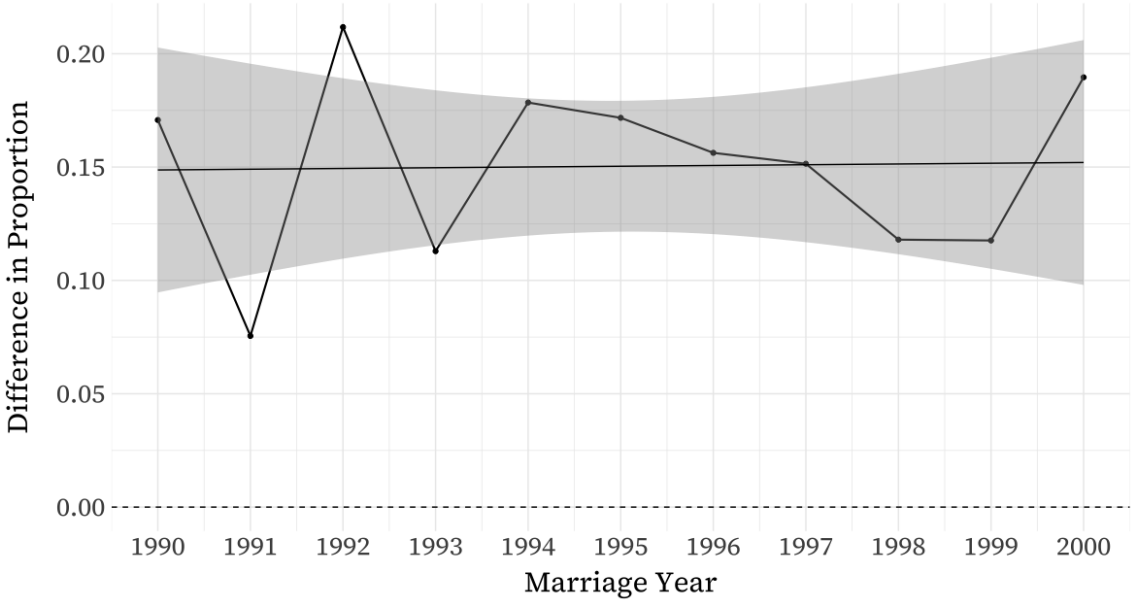
Imputation of Missing Values: To address potential systematic non-response, I use a predictive mean matching method, MICE, to impute missing values in three covariates- Caste, Property Ownership and Husband's Education. The imputation model uses key predictors such as region, religion, respondent's education and other demographic characteristics. The plots below show stable mixing patterns across iterations, negating the presence of systematic trends and supporting the convergence of the imputation model.

Figure 18: Convergence Plots



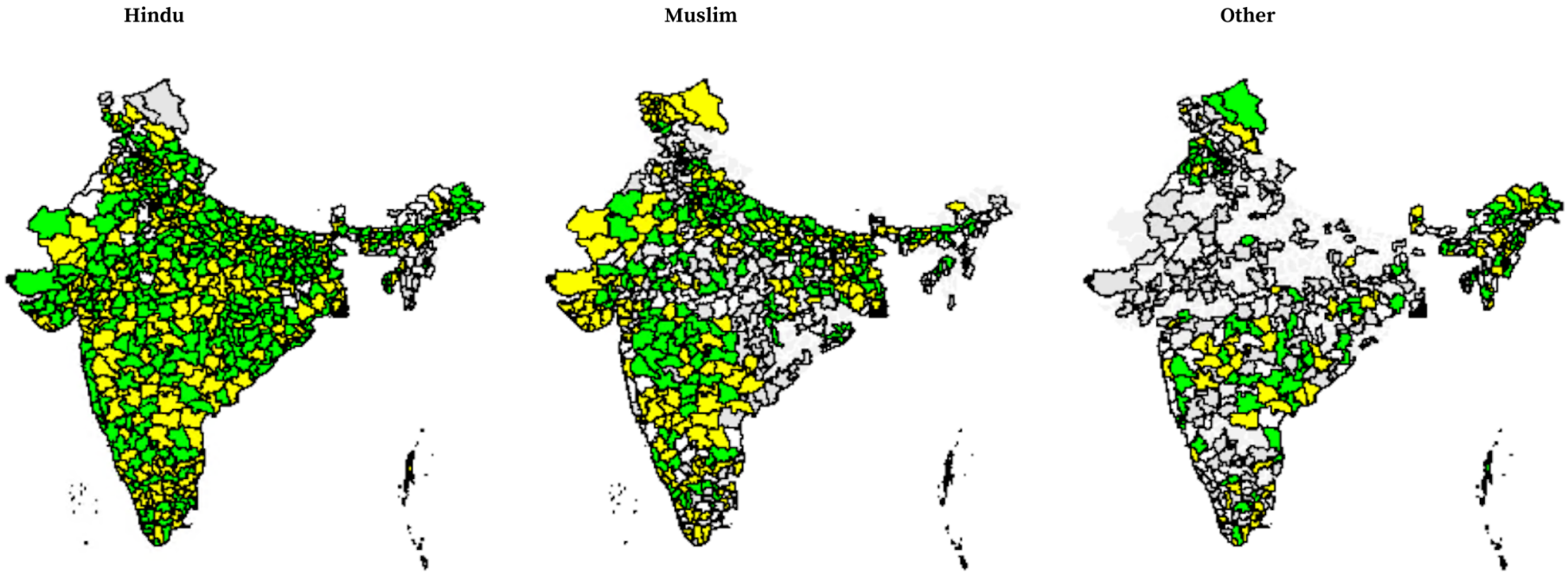
Source: National Family Health Surveys 2015-16, 2019-21

Figure 19: Parallel Trends



Note: The vertical axis shows the difference in proportion of married women justifying domestic violence between the treatment and control groups. The fitted line majorly remains within the 95% confidence intervals implying that the difference was not statistically significant.
Source: National Family Health Surveys 2015-16, 2019-21

Figure 20: District-level variation in within-family marriage prevalence by religious groups.



Note: The plots above show district-level variation in within-family marriage prevalence disaggregated by religion. Districts in green experienced positive change, those in yellow experienced negative change, and those in white saw no change. There are also districts in gray which have missing data for the specific religion.
Source: National Family Health Surveys 2015-16, 2019-21

Table 5: Summary Statistics (Full Sample)

	Related to husband by blood		
Characteristic	**No**[1]	**Yes**[1]	**p-value**[2]
Marriage Age			
Below 14	0.078 (0.268)	0.095 (0.294)	<0.001
14-17	0.328 (0.470)	0.367 (0.482)	<0.001
18-24	0.508 (0.500)	0.478 (0.500)	<0.001
25-29	0.071 (0.257)	0.050 (0.218)	<0.001
30-34	0.013 (0.114)	0.008 (0.088)	<0.001
35-39	0.002 (0.047)	0.001 (0.033)	<0.001
Above 40	0.000 (0.022)	0.000 (0.022)	>0.9
Region			
Central	0.229 (0.420)	0.209 (0.407)	<0.001
East	0.177 (0.382)	0.119 (0.324)	<0.001
North	0.212 (0.409)	0.110 (0.313)	<0.001
Northeast	0.134 (0.341)	0.028 (0.164)	<0.001
South	0.143 (0.350)	0.410 (0.492)	<0.001
West	0.104 (0.305)	0.124 (0.329)	<0.001
Religion			
Hindu	0.784 (0.411)	0.744 (0.436)	<0.001
Muslim	0.089 (0.285)	0.201 (0.401)	<0.001
Other	0.127 (0.332)	0.054 (0.227)	<0.001
Area of residence			
Rural	0.722 (0.448)	0.702 (0.458)	<0.001
Caste			
Other	0.212 (0.409)	0.181 (0.385)	<0.001
OBC	0.401 (0.490)	0.485 (0.500)	<0.001
SC	0.195 (0.396)	0.199 (0.399)	0.3
ST	0.192 (0.394)	0.135 (0.342)	<0.001
Respondent's education level			
No education	0.305 (0.460)	0.312 (0.463)	0.12
Primary	0.146 (0.353)	0.144 (0.351)	0.5
Secondary	0.443 (0.497)	0.460 (0.498)	<0.001
Higher	0.106 (0.308)	0.084 (0.227)	<0.001
Respondent's employment status			
Employed	0.277 (0.447)	0.320 (0.466)	<0.001
Husband's education level			
No education	0.180 (0.384)	0.199 (0.400)	<0.001
Primary	0.146 (0.353)	0.162 (0.369)	<0.001
Secondary	0.535 (0.499)	0.520 (0.500)	0.004
Higher	0.139 (0.346)	0.118 (0.323)	<0.001
Husband's employment status			
Employed	0.973 (0.162)	0.974 (0.159)	0.5
Wealth			
Poor	0.420 (0.493)	0.372 (0.483)	<0.001
Middle	0.205 (0.404)	0.241 (0.428)	<0.001
Rich	0.375 (0.484)	0.387 (0.487)	0.018
Property ownership			
Does own house or land	0.351 (0.477)	0.391 (0.488)	<0.001
Household Type			
Nuclear	0.550 (0.497)	0.550 (0.498)	>0.9
Has children			
Yes	0.911 (0.285)	0.902 (0.298)	0.003
Outcome Variable			
Justifies domestic violence			
Justifies	0.377 (0.485)	0.541 (0.498)	<0.001
Observations	97,161	10,369	

[1]Mean (SD)
[2]Welch Two Sample t-test
Note: The p-values indicate the statistical significance of differences between the two group means.
Source: National Family Health Surveys 2015-16, 2019-21

Table 6: Lasso Regression Coefficients

Characteristic	Coefficient
Residence area	
Urban	-0.0359
Caste	
SC	0.0247
ST	-0.0226
OBC	0.0030
Has children	
Yes	-0.0014
Household type	
Nuclear	-0.0019
Husband education	
Higher	-0.0176
Primary	0.0085
Secondary	-0.0030
Husband employed	
Employed	-0.0495
Marriage Age	
Below 14	0.0250
25-29	-0.0230
35-39	-0.0226
30-34	-0.0135
14-17	0.0070
18-24	0.0000
Above 40	0.0000
Property Ownership	
Yes	0.0152
Region	
South	0.3513
North	-0.0754
West	0.0079
East	-0.0077
Northeast	-0.0054
Religion	
Muslim	0.0535
Hindu	-0.0002
Respondent education	
Higher	-0.1208
Secondary	-0.0525
Primary	-0.0182
Respondent employed	
Employed	0.0273
Wealth	
Rich	-0.0601
Middle	-0.0189

Note: The dependent variable is the share of married women justifying domestic violence.
Source: National Family Health Surveys 2015-16, 2019-21

Table 7: Redefining the domestic violence justification dummy

Model:	(1)
Positive_change×Late_cohort	-0.0028
	(0.0067)
Positive_change	0.0104
	(0.0070)
Late_cohort	0.0006
	(0.0049)
Age at Marriage	0.0002
	(0.0004)
Residence Area: Urban	-0.0048
	(0.0056)
Household Type: Non-nuclear	0.0048
	(0.0031)
has_children	0.0015
	(0.0017)
Resp_education: primary	-0.0111**
	(0.0046)
Resp_education: secondary	-0.0176***
	(0.0043)
Resp_education: higher	-0.0246***
	(0.0068)
Resp_employment: employed	0.0023
	(0.0038)
Wealth level: middle	-0.0089
	(0.0054)
Wealth level: rich	-0.0141**
	(0.0065)
Caste: OBC	-0.0028
	(0.0033)
Caste: SC	0.0052
	(0.0033)
Caste: ST	0.0032
	(0.0071)
Owns house or land	0.0081*
	(0.0041)
Husb_employment: employed	-0.0043
	(0.0092)
Husb_education: primary	-0.0118**
	(0.0051)
Husb_education: secondary	-0.0098**
	(0.0039)
Husb_education: higher	-0.0196**
	(0.0076)
Fixed-effects	
State	Yes
Religion	Yes
State-Religion	Yes
Fit statistics	
Squared Correlation	0.02037
Observations	30,844

Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence.
Source: National Family Health Surveys 2015-16, 2019-21

Table 8: Effects of different positive treatment assignment cut-offs.

Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Positive_change×Late_cohort	0.0075	0.0056	0.0010	0.0091	0.0081	0.0028	0.0115
	(0.0108)	(0.0093)	(0.0106)	(0.0107)	(0.0101)	(0.0149)	(0.0202)
Positive_change	-0.0019	0.0101	0.0199	0.0059	-0.0056	0.0025	-0.0203
	(0.0104)	(0.0105)	(0.0118)	(0.0151)	(0.0121)	(0.0104)	(0.0181)
Late_cohort	-0.0254**	-0.0227***	-0.0202***	-0.0225***	-0.0219***	-0.0204***	-0.0209***
	(0.0105)	(0.0076)	(0.0072)	(0.0070)	(0.0063)	(0.0067)	(0.0062)
Age at Marriage	-0.0019**	-0.0019**	-0.0019**	-0.0018**	-0.0019**	-0.0019**	-0.0019**
	(0.0008)	(0.0008)	(0.0008)	(0.0008)	(0.0008)	(0.0008)	(0.0008)
Residence Area: Urban	-0.0408***	-0.0405***	-0.0401***	-0.0406***	-0.0410***	-0.0409***	-0.0408***
	(0.0076)	(0.0076)	(0.0075)	(0.0075)	(0.0076)	(0.0076)	(0.0076)
Household Type: Non-nuclear	0.0078	0.0077	0.0075	0.0077	0.0078	0.0078	0.0079*
	(0.0046)	(0.0046)	(0.0047)	(0.0047)	(0.0046)	(0.0046)	(0.0046)
Has children	-0.0101	-0.0102	-0.0101	-0.0100	-0.0102	-0.0101	-0.0102
	(0.0075)	(0.0075)	(0.0075)	(0.0075)	(0.0075)	(0.0075)	(0.0075)
Resp_education: primary	-0.0175**	-0.0174**	-0.0175**	-0.0174**	-0.0175**	-0.0175**	-0.0177**
	(0.0076)	(0.0076)	(0.0076)	(0.0076)	(0.0076)	(0.0076)	(0.0075)
Resp_education: secondary	-0.0408***	-0.0406***	-0.0407***	-0.0408***	-0.0408***	-0.0408***	-0.0409***
	(0.0083)	(0.0083)	(0.0083)	(0.0083)	(0.0083)	(0.0084)	(0.0083)
Resp_education: higher	-0.1116***	-0.1113***	-0.1116***	-0.1117***	-0.1115***	-0.1116***	-0.1115***
	(0.0114)	(0.0114)	(0.0115)	(0.0115)	(0.0115)	(0.0115)	(0.0115)
Resp_employment: employed	0.0146*	0.0146*	0.0143*	0.0146*	0.0146*	0.0146*	0.0147*
	(0.0078)	(0.0078)	(0.0079)	(0.0079)	(0.0078)	(0.0078)	(0.0078)
Wealth level: middle	-0.0257**	-0.0261**	-0.0260**	-0.0257**	-0.0257**	-0.0256**	-0.0256**
	(0.0105)	(0.0106)	(0.0105)	(0.0105)	(0.0105)	(0.0105)	(0.0105)
Wealth level: rich	-0.0530***	-0.0534***	-0.0530***	-0.0530***	-0.0530***	-0.0529***	-0.0531***
	(0.0163)	(0.0165)	(0.0163)	(0.0163)	(0.0164)	(0.0164)	(0.0165)
Caste: OBC	0.0027	0.0028	0.0030	0.0027	0.0027	0.0027	0.0025
	(0.0104)	(0.0102)	(0.0103)	(0.0103)	(0.0103)	(0.0103)	(0.0103)
Caste: SC	0.0245***	0.0247***	0.0248***	0.0245***	0.0244***	0.0245***	0.0245***
	(0.0086)	(0.0085)	(0.0086)	(0.0086)	(0.0086)	(0.0086)	(0.0086)
Caste: ST	0.0132	0.0144	0.0141	0.0134	0.0131	0.0132	0.0132
	(0.0115)	(0.0117)	(0.0115)	(0.0117)	(0.0117)	(0.0117)	(0.0115)
Owns house or land	0.0123*	0.0123*	0.0123*	0.0123*	0.0123*	0.0123*	0.0123*
	(0.0063)	(0.0064)	(0.0064)	(0.0064)	(0.0064)	(0.0064)	(0.0063)
Husb_employment: employed	-0.0459	-0.0463	-0.0458	-0.0460	-0.0459	-0.0458	-0.0459
	(0.0276)	(0.0277)	(0.0276)	(0.0276)	(0.0276)	(0.0275)	(0.0275)
Husb_education: primary	0.0044	0.0045	0.0044	0.0044	0.0044	0.0044	0.0042
	(0.0097)	(0.0097)	(0.0098)	(0.0097)	(0.0097)	(0.0098)	(0.0098)
Husb_education: secondary	0.0012	0.0014	0.0014	0.0012	0.0012	0.0012	0.0011
	(0.0090)	(0.0090)	(0.0090)	(0.0090)	(0.0090)	(0.0090)	(0.0091)
Husb_education: higher	-0.0325**	-0.0323**	-0.0325**	-0.0327**	-0.0326**	-0.0326**	-0.0326**
	(0.0135)	(0.0136)	(0.0135)	(0.0134)	(0.0134)	(0.0133)	(0.0134)
Fixed-effects							
State	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Religion	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-Religion	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics							
Squared Correlation	0.13372	0.13384	0.13397	0.13378	0.13372	0.13372	0.13377
Observations	30,844	30,844	30,844	30,844	30,844	30,844	30,844

Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence. Models (1) - (7) correspond to the results with the 25th, 50th, 60th, 70th, 75th, 80th, and 90th percentile values of the treatment cut-off respectively.
Source: National Family Health Surveys 2015-16, 2019-21

Table 9: Effects of different negative treatment assignment cut-offs.

Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Negative_change×Late_cohort	-0.0081	0.0106	0.0161	0.0125	0.0139	0.0075	0.0254
	(0.0126)	(0.0104)	(0.0116)	(0.0119)	(0.0099)	(0.0124)	(0.0213)
Negative_change	0.0230*	0.0182	0.0218	0.0126	0.0117	0.0128	-0.0064
	(0.0125)	(0.0110)	(0.0140)	(0.0126)	(0.0116)	(0.0137)	(0.0130)
Late_cohort	-0.0039	-0.0151	-0.0161*	-0.0137*	-0.0133*	-0.0114	-0.0127**
	(0.0125)	(0.0090)	(0.0085)	(0.0080)	(0.0072)	(0.0069)	(0.0061)
Age at Marriage	-0.0024***	-0.0024***	-0.0024***	-0.0024***	-0.0024***	-0.0024***	-0.0024***
	(0.0007)	(0.0006)	(0.0006)	(0.0006)	(0.0007)	(0.0007)	(0.0007)
Residence Area: Urban	-0.0375***	-0.0372***	-0.0368***	-0.0369***	-0.0370***	-0.0370***	-0.0370***
	(0.0086)	(0.0086)	(0.0084)	(0.0086)	(0.0087)	(0.0087)	(0.0086)
Household Type: Non-nuclear	0.0085*	0.0086*	0.0087**	0.0085*	0.0084*	0.0085*	0.0085*
	(0.0042)	(0.0042)	(0.0042)	(0.0042)	(0.0042)	(0.0042)	(0.0042)
Has children	-0.0080	-0.0078	-0.0077	-0.0078	-0.0078	-0.0080	-0.0081
	(0.0094)	(0.0094)	(0.0092)	(0.0092)	(0.0093)	(0.0093)	(0.0094)
Resp_education: primary	-0.0095	-0.0096	-0.0097	-0.0096	-0.0095	-0.0096	-0.0095
	(0.0104)	(0.0103)	(0.0104)	(0.0104)	(0.0104)	(0.0103)	(0.0103)
Resp_education: secondary	-0.0455***	-0.0457***	-0.0458***	-0.0456***	-0.0456***	-0.0458***	-0.0455***
	(0.0099)	(0.0100)	(0.0101)	(0.0100)	(0.0100)	(0.0101)	(0.0099)
Resp_education: higher	-0.1010***	-0.1015***	-0.1018***	-0.1012***	-0.1012***	-0.1012***	-0.1009***
	(0.0133)	(0.0135)	(0.0136)	(0.0134)	(0.0135)	(0.0136)	(0.0135)
Resp_employment: employed	0.0230**	0.0233**	0.0236**	0.0233**	0.0232**	0.0232**	0.0230**
	(0.0086)	(0.0086)	(0.0087)	(0.0086)	(0.0087)	(0.0086)	(0.0086)
Wealth level: middle	-0.0221*	-0.0220*	-0.0217*	-0.0219*	-0.0219*	-0.0217*	-0.0217*
	(0.0114)	(0.0114)	(0.0114)	(0.0114)	(0.0114)	(0.0114)	(0.0114)
Wealth level: rich	-0.0587***	-0.0582***	-0.0576***	-0.0579***	-0.0580***	-0.0579***	-0.0580***
	(0.0095)	(0.0095)	(0.0095)	(0.0095)	(0.0095)	(0.0095)	(0.0095)
Caste: OBC	0.0223***	0.0220***	0.0221***	0.0224***	0.0224***	0.0224***	0.0226***
	(0.0068)	(0.0069)	(0.0069)	(0.0069)	(0.0068)	(0.0068)	(0.0068)
Caste: SC	0.0361***	0.0359***	0.0358***	0.0361***	0.0362***	0.0364***	0.0365***
	(0.0076)	(0.0076)	(0.0076)	(0.0076)	(0.0076)	(0.0076)	(0.0076)
Caste: ST	0.0079	0.0091	0.0084	0.0091	0.0094	0.0097	0.0100
	(0.0100)	(0.0099)	(0.0099)	(0.0101)	(0.0101)	(0.0102)	(0.0102)
Owns house or land	0.0069	0.0071	0.0070	0.0070	0.0071	0.0072	0.0071
	(0.0088)	(0.0088)	(0.0089)	(0.0088)	(0.0088)	(0.0087)	(0.0087)
Husb_employment: employed	-0.0540	-0.0543	-0.0540	-0.0542	-0.0541	-0.0540	-0.0541
	(0.0321)	(0.0323)	(0.0323)	(0.0321)	(0.0320)	(0.0321)	(0.0321)
Husb_education: primary	0.0196**	0.0193**	0.0192**	0.0196**	0.0194**	0.0196**	0.0197**
	(0.0080)	(0.0081)	(0.0081)	(0.0081)	(0.0081)	(0.0081)	(0.0081)
Husb_education: secondary	-0.0061	-0.0065	-0.0065	-0.0063	-0.0065	-0.0063	-0.0063
	(0.0094)	(0.0094)	(0.0093)	(0.0093)	(0.0094)	(0.0094)	(0.0094)
Husb_education: higher	-0.0249*	-0.0256**	-0.0256**	-0.0253**	-0.0255**	-0.0253*	-0.0253*
	(0.0126)	(0.0125)	(0.0124)	(0.0124)	(0.0124)	(0.0125)	(0.0125)
Fixed-effects							
State	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Religion	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-Religion	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics							
Squared Correlation	0.13339	0.13357	0.13382	0.13341	0.13338	0.13329	0.13323
Observations	30,676	30,676	30,676	30,676	30,676	30,676	30,676

Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence. Models (1) - (7) correspond to the results with the 25th, 50th, 60th, 70th, 75th, 80th, and 90th percentile values of the treatment cut-off respectively.
Source: National Family Health Surveys 2015-16, 2019-21

Table 10: Redefining the *Late_cohort* time dummy- (i)

Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Positive_change×Late_cohort	0.0280*	0.0073	0.0271	0.0262	0.0156	0.0135	0.0397
	(0.0151)	(0.0184)	(0.0209)	(0.0184)	(0.0180)	(0.0231)	(0.0384)
Positive_change	0.0122	0.0005	-0.0159	-0.0211	-0.0229*	-0.0160	-0.0196
	(0.0228)	(0.0159)	(0.0180)	(0.0140)	(0.0120)	(0.0145)	(0.0246)
Late_cohort	-0.0610***	-0.0446**	-0.0520***	-0.0490***	-0.0452***	-0.0439***	-0.0450***
	(0.0160)	(0.0165)	(0.0141)	(0.0138)	(0.0135)	(0.0130)	(0.0128)
Age at Marriage	-0.0013	-0.0013	-0.0013	-0.0013	-0.0013	-0.0013	-0.0013
	(0.0012)	(0.0012)	(0.0012)	(0.0012)	(0.0012)	(0.0012)	(0.0012)
Residence Area: Urban	-0.0532***	-0.0532***	-0.0529***	-0.0530***	-0.0532***	-0.0533***	-0.0531***
	(0.0124)	(0.0123)	(0.0123)	(0.0123)	(0.0122)	(0.0123)	(0.0123)
Household Type: Non-nuclear	0.0006	0.0007	0.0009	0.0008	0.0007	0.0008	0.0009
	(0.0084)	(0.0084)	(0.0084)	(0.0084)	(0.0084)	(0.0084)	(0.0084)
Has children	-0.0252*	-0.0251*	-0.0253*	-0.0253*	-0.0253*	-0.0252*	-0.0251*
	(0.0145)	(0.0144)	(0.0144)	(0.0144)	(0.0145)	(0.0144)	(0.0143)
Resp_education: primary	-0.0273*	-0.0265*	-0.0262*	-0.0261*	-0.0261*	-0.0262*	-0.0261*
	(0.0146)	(0.0145)	(0.0143)	(0.0143)	(0.0143)	(0.0143)	(0.0143)
Resp_education: secondary	-0.0546***	-0.0541***	-0.0540***	-0.0539***	-0.0538***	-0.0539***	-0.0538***
	(0.0132)	(0.0135)	(0.0135)	(0.0134)	(0.0134)	(0.0134)	(0.0135)
Resp_education: higher	-0.1368***	-0.1348***	-0.1351***	-0.1344***	-0.1342***	-0.1342***	-0.1348***
	(0.0167)	(0.0171)	(0.0171)	(0.0170)	(0.0170)	(0.0170)	(0.0170)
Resp_employment: employed	0.0165	0.0167	0.0168	0.0169	0.0167	0.0166	0.0167
	(0.0105)	(0.0104)	(0.0103)	(0.0104)	(0.0104)	(0.0104)	(0.0104)
Wealth level: middle	-0.0339	-0.0338	-0.0340	-0.0340	-0.0339	-0.0338	-0.0338
	(0.0202)	(0.0201)	(0.0202)	(0.0202)	(0.0201)	(0.0201)	(0.0202)
Wealth level: rich	-0.0464*	-0.0465*	-0.0468*	-0.0472*	-0.0473*	-0.0469*	-0.0466*
	(0.0250)	(0.0249)	(0.0251)	(0.0251)	(0.0248)	(0.0248)	(0.0249)
Caste: OBC	0.0124	0.0121	0.0123	0.0123	0.0121	0.0121	0.0122
	(0.0157)	(0.0155)	(0.0156)	(0.0156)	(0.0156)	(0.0156)	(0.0157)
Caste: SC	0.0190	0.0188	0.0187	0.0187	0.0186	0.0187	0.0190
	(0.0150)	(0.0150)	(0.0152)	(0.0152)	(0.0152)	(0.0150)	(0.0150)
Caste: ST	0.0035	0.0026	0.0022	0.0023	0.0021	0.0024	0.0026
	(0.0151)	(0.0154)	(0.0154)	(0.0154)	(0.0155)	(0.0154)	(0.0153)
Owns house or land	0.0021	0.0018	0.0017	0.0016	0.0016	0.0017	0.0019
	(0.0101)	(0.0101)	(0.0100)	(0.0100)	(0.0100)	(0.0101)	(0.0100)
Husb_employment: employed	-0.0629	-0.0630	-0.0631	-0.0632	-0.0630	-0.0633	-0.0626
	(0.0500)	(0.0506)	(0.0506)	(0.0506)	(0.0503)	(0.0504)	(0.0505)
Husb_education: primary	0.0126	0.0132	0.0133	0.0135	0.0137	0.0136	0.0133
	(0.0142)	(0.0141)	(0.0143)	(0.0142)	(0.0142)	(0.0142)	(0.0143)
Husb_education: secondary	0.0172	0.0176	0.0175	0.0179	0.0181	0.0180	0.0178
	(0.0135)	(0.0137)	(0.0138)	(0.0137)	(0.0136)	(0.0135)	(0.0136)
Husb_education: higher	-0.0140	-0.0134	-0.0131	-0.0130	-0.0128	-0.0130	-0.0131
	(0.0180)	(0.0180)	(0.0181)	(0.0181)	(0.0179)	(0.0179)	(0.0180)
Fixed-effects							
State	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Religion	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-Religion	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics							
Squared Correlation	0.15057	0.15012	0.15029	0.15031	0.15030	0.15018	0.15024
Observations	11,400	11,400	11,400	11,400	11,400	11,400	11,400

Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence. Models (1) - (7) correspond to the results with the 25th, 50th, 60th, 70th, 75th, 80th, and 90th percentile values of the treatment cut-off respectively.
Source: National Family Health Surveys 2015-16, 2019-21

Table 11: Redefining the *Late_cohort* time dummy- (ii)

Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Positive_change×Late_cohort	0.0127	0.0007	0.0016	0.0053	0.0151	0.0134	0.0075
	(0.0086)	(0.0080)	(0.0084)	(0.0086)	(0.0094)	(0.0117)	(0.0152)
Positive_change	0.0075	0.0016	0.0103	0.0098	0.0176	0.0172	0.0106
	(0.0140)	(0.0123)	(0.0123)	(0.0109)	(0.0115)	(0.0114)	(0.0123)
Late_cohort	-0.0149**	-0.0058	-0.0062	-0.0071	-0.0094**	-0.0083*	-0.0062
	(0.0072)	(0.0056)	(0.0052)	(0.0047)	(0.0046)	(0.0047)	(0.0044)
Age at Marriage	-0.0027***	-0.0027***	-0.0027***	-0.0027***	-0.0027***	-0.0027***	-0.0027***
	(0.0008)	(0.0008)	(0.0008)	(0.0008)	(0.0008)	(0.0008)	(0.0008)
Residence Area: Urban	-0.0379***	-0.0375***	-0.0372***	-0.0371***	-0.0367***	-0.0372***	-0.0373***
	(0.0066)	(0.0068)	(0.0068)	(0.0068)	(0.0067)	(0.0067)	(0.0067)
Household Type: Non-nuclear	0.0003	0.0003	0.0004	0.0004	0.0006	0.0006	0.0004
	(0.0037)	(0.0037)	(0.0037)	(0.0037)	(0.0037)	(0.0037)	(0.0037)
Has children	-0.0050	-0.0051	-0.0050	-0.0050	-0.0050	-0.0049	-0.0051
	(0.0104)	(0.0104)	(0.0103)	(0.0103)	(0.0102)	(0.0103)	(0.0104)
Resp_education: primary	-0.0217***	-0.0217***	-0.0218***	-0.0218***	-0.0219***	-0.0217***	-0.0218***
	(0.0059)	(0.0059)	(0.0059)	(0.0059)	(0.0059)	(0.0059)	(0.0059)
Resp_education: secondary	-0.0396***	-0.0395***	-0.0396***	-0.0395***	-0.0396***	-0.0395***	-0.0397***
	(0.0062)	(0.0062)	(0.0063)	(0.0063)	(0.0063)	(0.0063)	(0.0063)
Resp_education: higher	-0.1147***	-0.1145***	-0.1144***	-0.1144***	-0.1147***	-0.1145***	-0.1147***
	(0.0080)	(0.0080)	(0.0080)	(0.0080)	(0.0080)	(0.0079)	(0.0080)
Resp_employment: employed	0.0189**	0.0186**	0.0186**	0.0186**	0.0185**	0.0186**	0.0187**
	(0.0069)	(0.0069)	(0.0069)	(0.0069)	(0.0069)	(0.0069)	(0.0069)
Wealth level: middle	-0.0299***	-0.0302***	-0.0302***	-0.0302***	-0.0303***	-0.0303***	-0.0301***
	(0.0095)	(0.0097)	(0.0097)	(0.0097)	(0.0095)	(0.0096)	(0.0096)
Wealth level: rich	-0.0521***	-0.0526***	-0.0525***	-0.0526***	-0.0525***	-0.0525***	-0.0523***
	(0.0122)	(0.0125)	(0.0126)	(0.0125)	(0.0124)	(0.0124)	(0.0124)
Caste: OBC	0.0030	0.0029	0.0029	0.0029	0.0031	0.0030	0.0029
	(0.0071)	(0.0070)	(0.0070)	(0.0070)	(0.0070)	(0.0070)	(0.0070)
Caste: SC	0.0165**	0.0162**	0.0163**	0.0162**	0.0163**	0.0163**	0.0162**
	(0.0077)	(0.0076)	(0.0076)	(0.0076)	(0.0075)	(0.0076)	(0.0076)
Caste: ST	0.0323***	0.0317***	0.0317***	0.0317***	0.0322***	0.0323***	0.0318***
	(0.0104)	(0.0102)	(0.0102)	(0.0103)	(0.0105)	(0.0103)	(0.0102)
Owns house or land	0.0110	0.0111	0.0110	0.0109	0.0107	0.0108	0.0110
	(0.0085)	(0.0086)	(0.0086)	(0.0086)	(0.0085)	(0.0086)	(0.0086)
Husb_employment: employed	-0.0493*	-0.0493*	-0.0492*	-0.0492*	-0.0490*	-0.0491*	-0.0491*
	(0.0250)	(0.0251)	(0.0250)	(0.0251)	(0.0252)	(0.0251)	(0.0251)
Husb_education: primary	-0.0025	-0.0023	-0.0024	-0.0024	-0.0023	-0.0023	-0.0023
	(0.0083)	(0.0082)	(0.0082)	(0.0082)	(0.0082)	(0.0082)	(0.0083)
Husb_education: secondary	-0.0064	-0.0064	-0.0064	-0.0065	-0.0063	-0.0064	-0.0064
	(0.0071)	(0.0070)	(0.0071)	(0.0071)	(0.0071)	(0.0070)	(0.0071)
Husb_education: higher	-0.0274**	-0.0272**	-0.0273**	-0.0273**	-0.0271**	-0.0274**	-0.0273**
	(0.0117)	(0.0117)	(0.0117)	(0.0118)	(0.0118)	(0.0117)	(0.0118)
Fixed-effects							
State	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Religion	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-Religion	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics							
Squared Correlation	0.13613	0.13599	0.13607	0.13608	0.13634	0.13624	0.13604
Observations	48,837	48,837	48,837	48,837	48,837	48,837	48,837

Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence. Models (1) - (7) correspond to the results with the 25th, 50th, 60th, 70th, 75th, 80th, and 90th percentile values of the treatment cut-off respectively.
Source: National Family Health Surveys 2015-16, 2019-21

Table 12: Including full-sample in control

Model:	(1)
Positive_change×Late_cohort	-0.0071
	(0.0063)
Positive_change	0.0115*
	(0.0067)
Late_cohort	-0.0104
	(0.0066)
Age at Marriage	-0.0023***
	(0.0006)
Household Type: Non-nuclear	0.0109***
	(0.0035)
Has children	-0.0097
	(0.0073)
Resp_education: primary	-0.0146*
	(0.0077)
Resp_education: secondary	-0.0442***
	(0.0056)
Resp_education: higher	-0.1106***
	(0.0081)
Resp_employment: employed	0.0196***
	(0.0069)
Wealth level: middle	-0.0278***
	(0.0077)
Wealth level: rich	-0.0703***
	(0.0109)
Caste: OBC	0.0123**
	(0.0057)
Caste: SC	0.0296***
	(0.0065)
Caste: ST	0.0104
	(0.0081)
Owns house or land	0.0108
	(0.0068)
Husb_employment: employed	-0.0485**
	(0.0231)
Husb_education: primary	0.0119*
	(0.0066)
Husb_education: secondary	-0.0031
	(0.0064)
Husb_education: higher	-0.0296***
	(0.0090)
Fixed-effects	
State	Yes
Religion	Yes
State-Religion	Yes
Fit statistics	
Squared Correlation	0.13017
Observations	61,861

Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence.
Source: National Family Health Surveys 2015-16, 2019-21

Table 13: Triple differences regression results

Model:	(1)
Positive_change×Late_cohort×WF_marriage	0.0610
	(0.0442)
Positive_change×Late_cohort	0.0027
	(0.0117)
Positive_change4×WF_marriage	-0.0766**
	(0.0371)
WF_marriage×Late_cohort	-0.0410
	(0.0284)
Positive_change	0.0029
	(0.0114)
Late_cohort	-0.0203***
	(0.0069)
WF_marriage	0.0649**
	(0.0240)
Age at Marriage	-0.0018**
	(0.0008)
Residence Area: Urban	-0.0409***
	(0.0076)
Household Type: Non-nuclear	0.0077
	(0.0047)
Has children	-0.0098
	(0.0074)
Resp_education: primary	-0.0179**
	(0.0075)
Resp_education: secondary	-0.0411***
	(0.0082)
Resp_education: higher	-0.1115***
	(0.0114)
Resp_employment: employed	0.0146*
	(0.0078)
Wealth level: middle	-0.0258**
	(0.0105)
Wealth level: rich	-0.0531***
	(0.0164)
Caste: OBC	0.0028
	(0.0104)
Caste: SC	0.0245***
	(0.0086)
Caste: ST	0.0130
	(0.0116)
Owns house or land	0.0122*
	(0.0063)
Husb_employment: employed	-0.0464
	(0.0275)
Husb_education: primary	0.0044
	(0.0099)
Husb_education: secondary	0.0013
	(0.0091)
Husb_education: higher	-0.0326**
	(0.0135)
Fixed-effects	
State	Yes
Religion	Yes
State-Religion	Yes
Fit statistics	
Squared Correlation	0.13417
Observations	30,844

Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence.
Source: National Family Health Surveys 2015-16, 2019-21

Table 14: Regression results with imputed missing values

Model:	(1)
Positive_change×Late_cohort	0.0041
	(0.0093)
Positive_change	0.0014
	(0.0150)
Late_cohort	-0.0160***
	(0.0050)
Age at Marriage	-0.0025***
	(0.0007)
Residence Area: Urban	-0.0358***
	(0.0071)
Household Type: Non-nuclear	0.0074*
	(0.0038)
Has children	-0.0079
	(0.0067)
Resp_education: primary	-0.0121*
	(0.0070)
Resp_education: secondary	-0.0404***
	(0.0086)
Resp_education: higher	-0.1078***
	(0.0116)
Resp_employment: employed	0.0204**
	(0.0079)
Wealth level: middle	-0.0219**
	(0.0086)
Wealth level: rich	-0.0468***
	(0.0163)
Caste: OBC	-0.0027
	(0.0101)
Caste: SC	0.0244***
	(0.0072)
Caste: ST	0.0058
	(0.0108)
owns_house_or_land1	0.0130**
	(0.0062)
Husb_employment: employed	-0.0365
	(0.0265)
Husb_education: primary	0.0028
	(0.0087)
Husb_education: secondary	-0.0017
	(0.0087)
Husb_education: higher	-0.0387***
	(0.0140)
Fixed-effects	
State	Yes
Religion	Yes
State-Religion	Yes
Fit statistics	
Squared Correlation	0.12276
Observations	37,088

Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence.
Source: National Family Health Surveys 2015-16, 2019-21

Table 15: Leave-one-out analysis: Region

Model:	(1)	(2)	(3)	(4)	(5)	(6)
Positive_change×Late_cohort	0.0004	0.0178	0.0188	0.0155	-0.0022	0.0105
	(0.0107)	(0.0132)	(0.0129)	(0.0125)	(0.0163)	(0.0106)
Positive_change	-0.0041	-0.0069	-0.0118	-0.0101	0.0243	-0.0052
	(0.0154)	(0.0114)	(0.0123)	(0.0108)	(0.0172)	(0.0137)
Late_cohort	-0.0155**	-0.0241***	-0.0261***	-0.0204***	-0.0246***	-0.0233***
	(0.0069)	(0.0073)	(0.0077)	(0.0062)	(0.0079)	(0.0068)
Age at Marriage	-0.0017*	-0.0017*	-0.0009	-0.0025***	-0.0025***	-0.0018**
	(0.0009)	(0.0009)	(0.0008)	(0.0009)	(0.0008)	(0.0009)
Residence Area: Urban	-0.0367***	-0.0386***	-0.0492***	-0.0388***	-0.0405***	-0.0408***
	(0.0091)	(0.0088)	(0.0069)	(0.0079)	(0.0090)	(0.0079)
Household Type: Non-nuclear	0.0065	0.0087	0.0072	0.0073	0.0093	0.0077
	(0.0044)	(0.0055)	(0.0048)	(0.0050)	(0.0055)	(0.0051)
Has children	-0.0035	-0.0138	-0.0083	-0.0061	-0.0201***	-0.0091
	(0.0082)	(0.0086)	(0.0089)	(0.0080)	(0.0067)	(0.0084)
Resp_education: primary	-0.0176*	-0.0191**	-0.0165**	-0.0146*	-0.0225***	-0.0140
	(0.0098)	(0.0086)	(0.0079)	(0.0079)	(0.0079)	(0.0083)
Resp_education: secondary	-0.0463***	-0.0390***	-0.0361***	-0.0420***	-0.0437***	-0.0373***
	(0.0096)	(0.0092)	(0.0086)	(0.0091)	(0.0090)	(0.0092)
Resp_education: higher	-0.1185***	-0.1084***	-0.1048***	-0.1161***	-0.1199***	-0.1027***
	(0.0145)	(0.0125)	(0.0114)	(0.0122)	(0.0133)	(0.0117)
Resp_employment: employed	0.0126	0.0168**	0.0140	0.0142*	0.0151*	0.0154*
	(0.0099)	(0.0077)	(0.0085)	(0.0081)	(0.0088)	(0.0087)
Wealth level: middle	-0.0117	-0.0258*	-0.0167	-0.0335***	-0.0325***	-0.0301***
	(0.0114)	(0.0131)	(0.0113)	(0.0106)	(0.0106)	(0.0106)
Wealth level: rich	-0.0332**	-0.0505**	-0.0496**	-0.0610***	-0.0621***	-0.0579***
	(0.0135)	(0.0192)	(0.0203)	(0.0165)	(0.0173)	(0.0177)
Caste: OBC	-0.0036	0.0058	0.0042	-0.0004	0.0054	0.0046
	(0.0106)	(0.0105)	(0.0132)	(0.0107)	(0.0116)	(0.0105)
Caste: SC	0.0267**	0.0205**	0.0289***	0.0208**	0.0209**	0.0291***
	(0.0108)	(0.0088)	(0.0103)	(0.0085)	(0.0094)	(0.0086)
Caste: ST	0.0090	0.0192	0.0119	0.0088	0.0154	0.0148
	(0.0141)	(0.0129)	(0.0147)	(0.0103)	(0.0114)	(0.0139)
Owns house or land	0.0107	0.0109	0.0127*	0.0087	0.0148**	0.0159**
	(0.0084)	(0.0073)	(0.0075)	(0.0062)	(0.0066)	(0.0060)
Husb_employment: employed	-0.0496	-0.0203	-0.0518	-0.0386	-0.0627**	-0.0498
	(0.0329)	(0.0272)	(0.0317)	(0.0290)	(0.0274)	(0.0304)
Husb_education: primary	0.0121	0.0118	0.0011	-0.0001	-0.0016	0.0044
	(0.0101)	(0.0119)	(0.0102)	(0.0100)	(0.0102)	(0.0107)
Husb_education: secondary	0.0006	0.0049	-0.0026	0.0007	-0.0057	0.0085
	(0.0110)	(0.0112)	(0.0095)	(0.0097)	(0.0099)	(0.0081)
Husb_education: higher	-0.0296**	-0.0297*	-0.0411**	-0.0329**	-0.0362**	-0.0272*
	(0.0121)	(0.0161)	(0.0154)	(0.0141)	(0.0161)	(0.0137)
Fixed-effects						
State	Yes	Yes	Yes	Yes	Yes	Yes
Religion	Yes	Yes	Yes	Yes	Yes	Yes
State-Religion	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics						
Squared Correlation	0.15858	0.14844	0.12490	0.13818	0.06750	0.14438
Observations	23,373	25,631	24,646	27,675	25,562	27,333

Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence. Models (1) - (7) report results by iteratively excluding the Central, Eastern, Northern, North-Eastern, Southern, and Western regions respectively.
Source: National Family Health Surveys 2015-16, 2019-21

Table 16: Leave-one-out analysis: Religion

Model:	(1)	(2)	(3)
Positive_change×Late_cohort	-0.0080	0.0193**	0.0147
	(0.0293)	(0.0094)	(0.0129)
Positive_change	-0.0082	0.0024	-0.0072
	(0.0310)	(0.0142)	(0.0116)
Late_cohort	-0.0200	-0.0256***	-0.0218***
	(0.0205)	(0.0073)	(0.0063)
Age at Marriage	-0.0052***	-0.0011	-0.0017*
	(0.0017)	(0.0008)	(0.0009)
Residence Area: Urban	-0.0488**	-0.0380***	-0.0418***
	(0.0206)	(0.0081)	(0.0075)
Household Type: Non-nuclear	0.0051	0.0107**	0.0055
	(0.0109)	(0.0046)	(0.0050)
Has children	-0.0379**	-0.0049	-0.0096
	(0.0158)	(0.0083)	(0.0081)
Resp_education: primary	-0.0224	-0.0179**	-0.0156*
	(0.0245)	(0.0071)	(0.0080)
Resp_education: secondary	-0.0289*	-0.0411***	-0.0432***
	(0.0153)	(0.0087)	(0.0094)
Resp_education: higher	-0.0709***	-0.1121***	-0.1202***
	(0.0235)	(0.0124)	(0.0126)
Resp_employment: employed	0.0093	0.0167**	0.0134
	(0.0198)	(0.0076)	(0.0082)
Wealth level: middle	-0.0345*	-0.0220**	-0.0270**
	(0.0191)	(0.0104)	(0.0108)
Wealth level: rich	-0.0429*	-0.0525***	-0.0556***
	(0.0243)	(0.0166)	(0.0166)
Caste: OBC	0.0117	0.0038	-6.23×10^{-5}
	(0.0210)	(0.0120)	(0.0112)
Caste: SC	0.0389	0.0251**	0.0217**
	(0.0299)	(0.0095)	(0.0093)
Caste: ST	0.0010	0.0172	0.0090
	(0.0326)	(0.0135)	(0.0118)
Owns house or land	0.0251*	0.0088	0.0133*
	(0.0134)	(0.0071)	(0.0068)
Husb_employment: employed	-0.0728	-0.0437	-0.0430
	(0.0585)	(0.0278)	(0.0284)
Husb_education: primary	0.0070	0.0065	0.0019
	(0.0225)	(0.0089)	(0.0094)
Husb_education: secondary	0.0138	0.0015	-0.0022
	(0.0183)	(0.0092)	(0.0092)
Husb_education: higher	-0.0417	-0.0330**	-0.0311**
	(0.0280)	(0.0142)	(0.0139)
Fixed-effects			
State	Yes	Yes	Yes
Religion	Yes	Yes	Yes
State-Religion	Yes	Yes	Yes
Fit statistics			
Squared Correlation	0.09953	0.13927	0.13585
Observations	5,938	28,013	27,737

Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence. Models (1) - (3) report results by iteratively excluding Hindus, Muslims, and Other religions respectively,
Source: National Family Health Surveys 2015-16, 2019-21

Table 17: Leave-one-out analysis: Respondent's education

Model:	(1)	(2)	(3)	(4)
Positive_change×Late_cohort	0.0123	0.0031	0.0210	0.0039
	(0.0131)	(0.0104)	(0.0169)	(0.0108)
Positive_change	-0.0183	-0.0016	-0.0002	-0.0071
	(0.0124)	(0.0119)	(0.0152)	(0.0128)
Late_cohort	-0.0352***	-0.0339***	-0.0344***	-0.0335***
	(0.0076)	(0.0061)	(0.0098)	(0.0065)
Age at Marriage	-0.0030***	-0.0029***	-0.0032***	-0.0018*
	(0.0009)	(0.0009)	(0.0010)	(0.0009)
Residence Area: Urban	-0.0518***	-0.0421***	-0.0377***	-0.0429***
	(0.0087)	(0.0080)	(0.0084)	(0.0073)
Household Type: Non-nuclear	0.0006	0.0047	0.0154**	0.0057
	(0.0068)	(0.0048)	(0.0064)	(0.0044)
Has children	-0.0108	-0.0033	-0.0041	-0.0169*
	(0.0079)	(0.0079)	(0.0086)	(0.0088)
Resp_employment: employed	0.0039	0.0117	0.0197**	0.0194**
	(0.0087)	(0.0086)	(0.0089)	(0.0084)
Wealth level: middle	-0.0198**	-0.0401***	-0.0343**	-0.0281**
	(0.0090)	(0.0120)	(0.0144)	(0.0109)
Wealth level: rich	-0.0572***	-0.0793***	-0.0673***	-0.0588***
	(0.0160)	(0.0176)	(0.0174)	(0.0158)
Caste: OBC	0.0069	0.0068	0.0116	-0.0007
	(0.0103)	(0.0091)	(0.0153)	(0.0112)
Caste: SC	0.0304***	0.0308***	0.0302**	0.0239***
	(0.0104)	(0.0079)	(0.0133)	(0.0087)
Caste: ST	0.0192	0.0228**	0.0151	0.0129
	(0.0145)	(0.0109)	(0.0177)	(0.0121)
Owns house or land	0.0227***	0.0129*	0.0022	0.0078
	(0.0081)	(0.0065)	(0.0079)	(0.0070)
Husb_employment: employed	-0.0060	-0.0493*	-0.0790**	-0.0526*
	(0.0274)	(0.0291)	(0.0356)	(0.0296)
Husb_education: primary	0.0199	-0.0074	-0.0042	-0.0023
	(0.0136)	(0.0103)	(0.0095)	(0.0087)
Husb_education: secondary	-0.0015	-0.0142	-0.0145	-0.0148
	(0.0121)	(0.0106)	(0.0109)	(0.0100)
Husb_education: higher	-0.0561***	-0.0736***	-0.1156***	-0.0478***
	(0.0123)	(0.0148)	(0.0227)	(0.0143)
Fixed-effects				
State	Yes	Yes	Yes	Yes
Religion	Yes	Yes	Yes	Yes
State-Religion	Yes	Yes	Yes	Yes
Fit statistics				
Squared Correlation	0.15093	0.13354	0.13013	0.11804
Observations	21,842	26,744	16,798	27,148

Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence. Models (1) - (4) report results by iteratively excluding respondents with no education, primary education, secondary education, and higher education respectively.
Source: National Family Health Surveys 2015-16, 2019-21

Table 18: Leave-one-out analysis: Wealth

Model:	(1)	(2)	(3)
Positive_change×Late_cohort	0.0086	0.0032	0.0125
	(0.0126)	(0.0145)	(0.0147)
Positive_change	-0.0112	-0.0083	0.0044
	(0.0108)	(0.0133)	(0.0178)
Late_cohort	-0.0127	-0.0128*	-0.0264***
	(0.0086)	(0.0071)	(0.0068)
Residence Area: Urban	-0.0448***	-0.0597***	-0.0427***
	(0.0104)	(0.0113)	(0.0080)
Age at Marriage	-0.0033***	-0.0020**	-0.0012
	(0.0012)	(0.0009)	(0.0009)
Household Type: Non-nuclear	0.0025	0.0045	0.0117**
	(0.0051)	(0.0058)	(0.0056)
Has children	-0.0066	-0.0075	-0.0174
	(0.0097)	(0.0078)	(0.0109)
Resp_education: primary	0.0100	-0.0272**	-0.0266***
	(0.0151)	(0.0101)	(0.0074)
Resp_education: secondary	-0.0387***	-0.0556***	-0.0415***
	(0.0104)	(0.0094)	(0.0100)
Resp_education: higher	-0.1067***	-0.1291***	-0.1226***
	(0.0139)	(0.0133)	(0.0210)
Resp_employment: employed	0.0136	0.0125	0.0233**
	(0.0106)	(0.0083)	(0.0093)
Caste: OBC	0.0027	0.0101	-0.0115
	(0.0103)	(0.0103)	(0.0156)
Caste: SC	0.0217**	0.0361***	0.0145
	(0.0099)	(0.0105)	(0.0122)
Caste: ST	0.0209	0.0243*	0.0049
	(0.0193)	(0.0120)	(0.0162)
Owns house or land	0.0092	0.0116*	0.0150*
	(0.0086)	(0.0064)	(0.0088)
Husb_employment: employed	-0.0172	-0.0443	-0.0697*
	(0.0297)	(0.0280)	(0.0344)
Husb_education: primary	0.0087	0.0010	0.0039
	(0.0170)	(0.0097)	(0.0112)
Husb_education: secondary	-0.0016	-0.0069	-0.0019
	(0.0182)	(0.0084)	(0.0084)
Husb_education: higher	-0.0425*	-0.0513***	-0.0185
	(0.0212)	(0.0122)	(0.0155)
Fixed-effects			
State	Yes	Yes	Yes
Religion	Yes	Yes	Yes
State-Religion	Yes	Yes	Yes
Fit statistics			
Squared Correlation	0.17567	0.12485	0.10746
Observations	17,843	24,432	19,413

Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence. Models (1) - (3) report results by iteratively excluding respondents who are poor, middle-class, or rich respectively.
Source: National Family Health Surveys 2015-16, 2019-21

Table 19: Leave-one-out analysis: Area of Residence

Model:	(1)	(2)
Positive_change×Late_cohort	0.0213*	-0.0178
	(0.0119)	(0.0254)
Positive_change	-0.0071	0.0150
	(0.0164)	(0.0186)
Late_cohort	-0.0304***	-0.0068
	(0.0068)	(0.0107)
Age at Marriage	-0.0016	-0.0017
	(0.0010)	(0.0015)
Household Type: Non-nuclear	0.0081	0.0080
	(0.0051)	(0.0096)
Has children	-0.0173*	0.0142
	(0.0090)	(0.0134)
Resp_education: primary	-0.0122	-0.0411**
	(0.0088)	(0.0170)
Resp_education: secondary	-0.0333***	-0.0707***
	(0.0094)	(0.0125)
Resp_education: higher	-0.1095***	-0.1292***
	(0.0151)	(0.0169)
Resp_employment: employed	0.0157*	0.0130
	(0.0083)	(0.0174)
Wealth level: middle	-0.0255**	-0.0184
	(0.0120)	(0.0159)
Wealth level: rich	-0.0513***	-0.0434*
	(0.0168)	(0.0225)
Caste: OBC	-0.0102	0.0223*
	(0.0129)	(0.0111)
Caste: SC	0.0103	0.0507***
	(0.0129)	(0.0169)
Caste: ST	0.0014	0.0403
	(0.0146)	(0.0262)
Owns house or land	0.0144**	0.0041
	(0.0064)	(0.0114)
Husb_employment: employed	-0.0639**	-0.0023
	(0.0287)	(0.0452)
Husb_education: primary	-0.0018	0.0265
	(0.0113)	(0.0236)
Husb_education: secondary	-0.0057	0.0203
	(0.0093)	(0.0211)
Husb_education: higher	-0.0280*	-0.0370
	(0.0152)	(0.0230)
Fixed-effects		
State	Yes	Yes
Religion	Yes	Yes
State-Religion	Yes	Yes
Fit statistics		
Squared Correlation	0.12393	0.17494
Observations	22,700	8,144

Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence. Models (1) and (2) report results by iteratively excluding respondents from the urban and rural regions respectively.
Source: National Family Health Surveys 2015-16, 2019-21

Table 20: Effects of different treatment intensities.

Model:	(1)
Medium_change×Late_cohort	0.0395
	(0.0633)
High_change × Late_cohort	0.0357
	(0.0607)
Very_high_change×Late_cohort	0.0779
	(0.0614)
Medium_change	-0.0642
	(0.0608)
High_change	0.0418
	(0.0549)
Very_high_change	-0.0365
	(0.0698)
Late_cohort	-0.1329**
	(0.0527)
Age at Marriage	-0.0096**
	(0.0038)
Residence Area: Urban	-0.2060***
	(0.0357)
Household Type: Non-nuclear	0.0369*
	(0.0221)
Has children	-0.0544
	(0.0371)
Resp_education: primary	-0.0725**
	(0.0357)
Resp_education: secondary	-0.1860***
	(0.0420)
Resp_education: higher	-0.5893***
	(0.0696)
Resp_employment: employed	0.0688*
	(0.0374)
Wealth level: middle	-0.1151**
	(0.0463)
Wealth level: rich	-0.2545***
	(0.0748)
Caste: OBC	0.0211
	(0.0506)
Caste: SC	0.1286***
	(0.0438)
Caste: ST	0.0770
	(0.0566)
Owns house or land	0.0589**
	(0.0298)
Husb_employment: employed	-0.2178*
	(0.1248)
Husb_education: primary	0.0222
	(0.0444)
Husb_education: secondary	0.0100
	(0.0410)
Husb_education: higher	-0.1727***
	(0.0658)
Fixed-effects	
State	Yes
Religion	Yes
State-Religion	Yes
Fit statistics	
Squared Correlation	0.13433
Observations	30,825

Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: The dependent variable is the share of married women justifying domestic violence.
Source: National Family Health Surveys 2015-16, 2019-21