

Make Your Publications Visible.

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Amirapu, Amrit; Asadullah, M Niaz; Wahhaj, Zaki

#### **Working Paper**

Can Child Marriage Law Affect Attitudes and Behaviour in the Absence of Strict Enforcement? Experimental Evidence from Bangladesh

GLO Discussion Paper, No. 1107

#### **Provided in Cooperation with:**

Global Labor Organization (GLO)

Suggested Citation: Amirapu, Amrit; Asadullah, M Niaz; Wahhaj, Zaki (2022): Can Child Marriage Law Affect Attitudes and Behaviour in the Absence of Strict Enforcement? Experimental Evidence from Bangladesh, GLO Discussion Paper, No. 1107, Global Labor Organization (GLO), Essen

This Version is available at: https://hdl.handle.net/10419/259819

#### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

#### Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



## Can Child Marriage Law Affect Attitudes and Behaviour in the Absence of Strict Enforcement? Experimental Evidence from Bangladesh\*

Amrit Amirapu<sup>†</sup> M Niaz Asadullah<sup>‡</sup> Zaki Wahhaj<sup>§</sup>

June 2022

#### Abstract

In developing countries, one in four girls is married before turning 18, with adverse consequences for their own and their children's human capital. In this paper, we investigate whether laws can affect attitudes and behaviour towards child marriage - in a context in which the laws are not strictly enforced. We do so using a randomised video-based information intervention that aimed to accelerate knowledge transmission about a new child marriage law in Bangladesh that introduced harsher punishments for facilitating early marriage. Follow-up surveys documented an increase in early marriage among treated households if the father or family elders received the information. The findings allow us to distinguish between two competing theoretical channels underlying the effect of legal change and highlight the risk of backlash against laws that contradict traditional norms and practices.

JEL Classification: J12, J16, K36

**Keywords:** age of marriage, social norms, formal institutions, legal change

<sup>\*</sup>We would like to thank participants at the EDI conferences at the University of Namur, Belgium in October 2017 and June 2019, the SSDEV Conference in Prato, Italy and the Development Economics workshop at the University of Kent in June 2019, the India-China Conference at the University of Warwick in July 2019 and the Gender Workshop at the University of Gothenburg in November 2019 for many useful comments and feedback. The authors would also like to acknowledge funding and support of UK Aid from the UK government through DfID's Economic Development and Institutions research programme. This study obtained research ethics approval from the Research Ethics Advisory Group, Faculty of Social Sciences, University of Kent and was pre-registered through the AEA's RCT Registry with ID number: "AEARCTR-0003035".

<sup>†</sup>School of Economics, University of Kent; GLO Fellow. Email: A. Amirapu@kent.ac.uk.

<sup>&</sup>lt;sup>‡</sup>Department of Economics, School of Business, Monash University Malaysia; GLO Fellow. Email: niaz.asadullah@monash.edu.

<sup>§</sup>School of Economics, University of Kent; GLO Fellow. Email: Z.Wahhaj@kent.ac.uk.

## 1 Introduction

Whether and to what extent the formal law can shape social attitudes and behaviour are questions of long-standing interest to behavioural scientists, legal scholars and policymakers. These questions are particularly pertinent in situations where the state has limited capacity to enforce laws, and the behaviours in question are socially harmful, yet deeply entrenched in society by norms and traditions. For example, economic development and gender equality may be held back by a myriad of traditional gender-related norms related to marriage, fertility, women's work, etc. In this paper, we address these questions using the practice of female early marriage as a case in point.

The practice of early marriage is ubiquitous among women in developing countries, with about one in four marrying before the age of 18, typically in their adolescence (UNFPA 2020). Recent work has shown that the practice has adverse consequences both for the women who experience it and for their families, in the form of lower educational investments, lower human capital investments in the next generation, adverse health effects from early child bearing and worse social networks.<sup>2</sup>

Most countries have a legal minimum age of marriage although exceptions are allowed, typically when parents, a judge or a community elder give consent (UNFPA 2012, Pew Research Center 2016). A number of countries have recently introduced harsher penalties for early marriage and/or raised the minimum age of marriage. Given the problem of weak law enforcement capacity in developing countries, it is not clear whether such legal changes can be effective. This is particularly difficult in situations where laws conflict with social norms, depriving them of the support and cooperation of the local population (Platteau and Wahhaj 2014; Acemoglu and Jackson 2017). In South Asia, for example, there are strong social pressures to marry from the onset of puberty (Ortner 1978, Dube 1997) and it is this custom rather than the law which often

<sup>&</sup>lt;sup>1</sup>For discussions on social norms – including gender-related norms – and economic development, see Boserup (2007), Platteau (2001), Eriksson (2015).

<sup>&</sup>lt;sup>2</sup>See Field and Ambrus (2008), Sekhri and Debnath (2014), Chari et al. (2017), Amin et al. (2018), Asadullah and Wahhaj (2019), Sunder (2019).

dictates the age at which a woman marries. On the other hand, legal theorists have argued that, distinct from the deterrence effects of legal punishment, the law may have an "expressive effect", i.e. it may shape behaviour by "sending a message about society's values" (Sunstein 1996; McAdams 2000a; Benabou and Tirole, 2012).

To investigate whether a change in child marriage law can influence social attitudes and behaviour in a setting with weak law enforcement, we administer a video-based information intervention – conducted in June 2018 – aimed at accelerating knowledge transmission in rural areas about a new child marriage law in Bangladesh (which was approved in the national parliament in March 2017).

The video took the form of a short fictional drama involving the early marriage of an adolescent girl that the study respondents viewed on a handheld electronic device. A control group watched a version of the drama that made reference only to the pre-2017 child marriage law. A treatment group watched a version of the video that referenced the new child marriage law, specifically the introduction of harsher punishments for facilitating early marriage. A second treatment group watched an alternative version of the video that referenced both the harsher punishments in the new law as well as a special clause in the law that permits child marriage in cases where the court gives its approval. Apart from these informational differences, the three versions of the video were, shot by shot, nearly identical. The intervention was motivated, in part, by evidence from the United States that providing individuals information about the formal law may be sufficient to shift their attitudes towards moral or social norms (Chen and Yeh 2014). The intervention was randomised across households along two dimensions independently of each other: 1) the video content and 2) whether or not the relevant video was shown to family elders in addition to mothers of adolescent girls.

Immediately following the information intervention, we measured a range of outcomes for study participants, employing both survey-based and experimental measures. These included participants' own views on appropriate marriage customs and beliefs about attitudes towards early marriage in their own community. At the end of each individual interview, the study participants were given the opportunity to contribute part of their remuneration for participation to a prominent charity in Bangladesh that works on child marriage prevention. We conducted follow-up interviews after five and ten months to collect information on marriage outcomes for adolescent girls who were unmarried at the time of the intervention. By assessing the relative effects of the information treatments on short-term attitudes and behaviour, and long-term marriage-related outcomes across different sub-groups of respondents, we are able to distinguish between two competing theoretical channels underlying the effect of legal change in a situation of weak legal enforcement: the "expressive effect" discussed above versus effects induced by strategic behaviour of customary authorities (Aldashev, Chaara, Platteau and Wahhaj 2012a, 2012b).

We find no effect of either treatment on the appropriate female marriage age stated by female respondents, but male respondents report a lower appropriate marriage age by 8-10 months on average (with no significant difference between the two treatments). We find little effect from either treatment on participants' beliefs about attitudes within their own community towards child marriage. However, the treatment in which participants are informed about the harsher punishments for facilitating early marriage in the new child marriage law (henceforth called 'Treatment 1') increased perceptions that neighbours and family elders would not approve of delayed marriage for adolescent girls. We also find that Treatment 1 sharply increased contributions to the charity, particularly from women, while Treatment 2 (in which participants were additionally informed about the special clause in the new law) had no significant effect.

In the case of the marriage-related outcomes for adolescent girls in the treated households, we find that Treatment 1 increased the probability of marriage by 7.2 percentage points 5 months after the intervention and that the effects persist after 10 months. The point estimates for Treatment 2 are also positive but much smaller in magnitude and are statistically insignificant. We obtain similar patterns when we consider related outcomes: the probability of accepting marriage offers – or any steps taken towards marriage – for the adolescent girls in question. Next, we show that these perverse effects of the information intervention are absent in households in which only

the mother of the adolescent girl views the treatment video, but large and statistically significant when the video is viewed by both the mother and (separately) by other members of the extended family – either the father or a family elder.

These findings highlight the possibility of a 'backlash' effect against a new law, as the intervention led to an acceleration of marriages for adolescent girls, the very behaviour that the law was meant to discourage. We argue that the 'backlash' effect we observe may be because family elders – who are arguably the customary authority in rural Bangladesh with regard to marriage – reverted to a more traditional position in response to a legal reform that made the formal law too remote from their own preferences and beliefs regarding the appropriate female marriage age.

Our findings demonstrate how legal reforms in a weak institutional setting can have perverse effects on behaviour and highlight the potential pitfalls of relying on legal reforms alone to stem the practice of early marriage in low-income countries. They also echo two recent studies on the effects of laws relating to the minimum age of marriage. Bellés-Obrero and Lombardi (2020) finds that a legal reform in Mexico that increased the minimum age of marriage to 18 years led to sharp declines in marriages among 16 and 17 year-olds, as well as in the share of births due to married women aged below 18. However, the decline in births among young married women is offset by an equivalent rise in births among mothers younger than 18 in informal unions, suggesting that the law merely succeeded in driving marriages underground. Roy and Tam (2021) show that the 1929 Child Marriage Restraint Act – which fixed the female minimum age of marriage at 14 years in British colonial India – led to a sharp increase in child marriages during the six month period between the announcement and implementation of the law.

Our study also contributes to a growing literature that shows how information-based interventions impact entrenched attitudes and social behaviour. Vogt, Ahmed, Fehr and Efferson (2016) study the effects of a video-based information intervention on attitudes towards female genital cutting in Sudan, and show that movies that reflected divergent views regarding the practice improved attitudes towards uncut girls. Banerjee, La Ferrara and Orozco (2019) show that a television series that combines entertainment

and education can shift attitudes and behaviour related to HIV/AIDS in urban Nigeria, primarily due to improved knowledge about HIV. Green, Wilke and Cooper (2020) study a mass media campaign in rural Uganda on violence against women, and show that educational films led to increased support for whistle-blowing against such behaviour without affecting the viewers' core values. Bursztyn, González and Yanagizawa-Drott (2020) show that men in Saudi Arabia substantially underestimate support for female work outside of the home and that correcting these beliefs in an experimental setting leads to increased job search by their wives. To our knowledge, ours is the first study to investigate whether providing information about the formal law can affect social attitudes and behaviour in a setting with weak legal enforcement.

The remainder of the paper is organised as follows. In Section 2, we provide more details on child marriage laws and marriage practices in our study setting, and present a conceptual framework to explain how information about the law can affect perceptions and social behaviour. In Section 3, we describe the experimental design and the surveys conducted to collect information on marriage-related attitudes and behaviour. We present the results in Section 4 and discuss their interpretation in Section 5. Section 6 concludes.

## 2 Study Context and Theory

## 2.1 Contextual Background

Bangladesh has one of the highest rates of female child marriage in the world: according to a recent survey, 59% of women aged 20-24 were married before the age of 18 (NIPORT 2016). Based on this measure, only Chad and Niger have a higher incidence (UNFPA 2012).

In the last three decades, there has been a substantial decline in the prevalence of very early marriage among women in Bangladesh: While close to half of women born in the 1970s were married by the age of 15, the proportion was close to 20% for women

born in the early 1990s (Wahhaj 2018). However, a significant proportion of adolescent girls continue to marry at 16 or 17, below the legal minimum age. Raj, McDougal and Rusch (2012) estimate, using data from the Demographic and Health Surveys that there has been an increase in marriage among girls aged 16-17 years from 15.2% in the early 1990s to 20.6% in the mid-2000s. In contrast to girls, marriage below 18 is very rare for boys. In the 2005 Bangladesh Adolescents Survey, based on a representative survey of adolescents and young adults (see Gani 2007 for further details), only 3% of men aged 20-24 years were married below the age of 18, compared to 70% of women in the same age group.

Arranged marriages are the norm. Parents, family elders and other members of the extended family play an influential role in the choice of marriage partner, particularly in the case of first marriages and their opposition to a match can give rise to long-term tensions within the family (Dube 1997; White 1992). In the 2014 Bangladesh Women's Life Choices and Attitudes Survey (2014 WiLCAS – described in greater detail below), 83% of married women reported that their marriages had been arranged by their parents or other relatives (Asadullah and Wahhaj 2016).

Until recently, the Child Marriage Restraint Act of 1929 set the legal minimum age of marriage at 18 for women and 21 for men. The law specified that taking part in or facilitating a child marriage was a punishable offense but the punishment itself was relatively mild – imprisonment up to one month or a fine of 1000 taka (USD 12.50).<sup>3</sup> This law was replaced by the Child Marriage Restraint Act of 2017, approved by the Bangladesh National Parliament in February of that year. There were two key changes in the new law. First, the punishment has been made much more severe – 2 years' imprisonment or a fine of 100,000 taka (USD 1,250) or both for any adult who marries an under-aged person. For the first time, the underage boy or girl also face punishment – 1 month's imprisonment or a fine of 50,000 taka (USD 625) or both. On the other hand, an "exception clause" has been introduced that would enable parents or guardians

 $<sup>^3{\</sup>rm The}$  Child Marriage Restraint Act of 1929 is available here: http://bdlaws.minlaw.gov.bd/print sections all.php?id=149

to marry off boys and girls before they reach the legal minimum age if a court rules that this is "in the best interest of the child". No age limit has been specified for the exception clause.<sup>4</sup> In the debates leading up to the passage of the new law, child rights activists repeatedly argued that the clause would make it more socially acceptable to marry off underage girls, perpetuate gender inequality in child investments and facilitate forced marriages.

Using data from the 2014 WiLCAS, we find that 88% respondents were able to state correctly the legal minimum age of marriage at that time (18 years) and 81% were able to state the nature of the punishment for violating the legal minimum age ("the guardian or father would be jailed or fined"). Those who correctly stated the legal minimum age were nearly twice as likely to indicate 18 as the appropriate age of marriage for a girl (67%) compared to those who did not (34%). Therefore, women in Bangladesh had a high level of awareness of the previous minimum age law, and it served as an important reference point, at least when answering questions about the appropriate age of marriage. Furthermore, 70% of the respondents reported receiving information about child marriage in the preceding 12 months from the print media, radio, television, posters or community programmes. These figures are suggestive that Bangladeshi women will eventually become informed of the revisions to child marriage law.

## 2.2 Conceptual Framework

How can information about the new child marriage law affect beliefs or behaviour? In the first instance, knowledge about the new law can have an "expressive effect" by "sending a message about society's values" (Benabou and Tirole, 2012; see also Sunstein 1996, McAdams 2000a). In the context of child marriage law in Bangladesh, the new law signals to the respondents how the government, legislators, and, potentially, the wider society view the practice of child marriage. Consequently, they may respond

 $<sup>^4</sup>$ Further details about the Child Marriage Restraint Act of 2017 are provided in this article: http://www.thedailystar.net/frontpage/bill-passed-okaying-underage-marriage-special-cases-1368451

by adapting their behaviour to maintain or win the approval of their peer group or individuals in positions of authority. Thus, the law would affect both respondents' beliefs about the community's attitude as well as their own behaviour.

Relatedly, the new law can serve as a new focal point for marriage practices (Auriol, Camilotti and Platteau 2018; see also Mackie 1996, 2000; Mackie & LeJeune 2009; McAdams 2000b). More precisely, if information about the new law shifts beliefs about the age at which others in the community will marry off their daughters, and there are gains from coordinating on marriage age, then it may lead respondents to change their behaviour (e.g. their expressed attitudes, their support for early marriage versus further education for adolescent girls within their families, marriage decisions of their own daughters, etc.) even if it does not affect their true attitudes – or beliefs regarding the attitudes of others – towards the practice that is endorsed or prohibited by the law.

The mechanisms discussed above may be at play even if formal enforcement of the law is entirely absent. When formal law enforcement is present but weak, agents in the community can have an important role in shaping the custom; e.g. in the form of whistle-blowers (Acemoglu and Jackson, 2017) and in the form of a customary authority (Aldashev, Chaara, Platteau and Wahhaj 2012a, 2012b). Both agents are important in the context of child marriage practices. The whistle-blowers can be the adolescent girl's school friends, teachers, neighbours, etc. who contact law enforcement authorities. The elders within the extended family – whose blessing is deemed necessary for decisions regarding marriage, schooling, etc. – would constitute the customary authority. These agents may be more supportive of the formal law when it is close to the custom as compared to when it is very distant.

It is important to note that these theories may predict, under certain circumstances, a backlash effect from a legal change, i.e. a change in behaviour or expressed attitudes that runs contrary to the direction of the legal change. For example, in a dual legal system where one can seek recourse either in the custom or the formal law, a customary authority may provide rulings close to the dictates of the formal law so that its subjects are not tempted to appeal to the formal legal system and, thereby, challenge his author-

ity. However, if the formal law becomes so distant from the customary practice that people will inevitably make use of the former, then the customary authority (the family elders in the present context) may revert to a more traditional position in line with their own beliefs (Aldashev, Chaara, Platteau and Wahhaj 2012b). Relatedly, Chen and Yeh (2014) argue that, if the legal change creates the perception that the practice that is prohibited by the law is, in fact, more common than it was previously believed to be, then it may reduce the social stigma associated with the prohibited behaviour and thus encourage more people to adopt the practice.

Our experiment is desgined specifically to test for an 'expressive effect' of the new law and/or effects resulting from a shift in the position of the customary authority in response to the new law. To investigate whether either of these potential mechanisms are triggered by the information intervention, we measure a variety of outcomes for participants in the experiment, including both short-term attitudinal outcomes and longer-term marriage-related outcomes. We describe the direction of change that each theory predicts for our measured outcomes in Section 3.2.3. We discuss whether alternative theories and explanations can account for our results in Section 5.1.

## 3 Data and Study Design

## 3.1 Description of the Survey

The 2014 Women's Life Choices and Attitudes Survey (WiLCAS) is a nationally representative survey of women in Bangladesh aged between 20 to 39 years with detailed information about their marital histories, child-related investments, attitudes towards marriage customs and traditional gender roles, access and use of information media, social networks, as well as knowledge about child marriage laws.<sup>5</sup> The survey was conducted immediately before the start of the public discussions that culminated in the Child Marriage Restraint Act of 2017 (CMRA 2017). Therefore, it provides an impor-

 $<sup>^5{\</sup>rm Further}$  information about the 2014 WiLCAS are available at the website www.integgra.org. See also Asadullah and Wahhaj (2019).

tant (and to our knowledge unique) snapshot of marriage-related social norms before the move to revise child marriage laws was initiated.

To study how the passage of the CMRA 2017 affects social attitudes, a new round of data collection was conducted in a subsample of the WiLCAS households in May-June 2018. We refer to this new survey as CiMLAS (Child Marriage Law and Attitudes Survey). At the time of the new survey, the CMRA 2017 had been approved in parliament but courts were still awaiting instructions from the government on how the new law should be applied in court cases. The new survey (CiMLAS) was conducted in 80 village clusters, selected from the original 391 WiLCAS rural clusters. The selection of survey clusters followed a two-stage randomisation process. At the first stage, 24 of the 61 districts covered under WiLCAS were randomly drawn. At the second stage, 80 village clusters were randomly picked from the WiLCAS rural clusters located in these districts. All female respondents from the original WiLCAS survey found in these clusters were selected for individual interviews. This procedure produced a sample of 971 primary respondents.

The survey team also conducted parallel interviews with other members of the extended family who belong to the same household or are living in the same neighbourhood. The number of additional interviews per respondent was randomised, with an equal probability of 0, 1 or 2 additional interviews. The additional respondents were chosen from the following list, starting with the first relative present at the time of the interview, and continuing down the list until the required number of additional interviews had been obtained: (a) father-in-law; (b) mother-in-law; (c) eldest brother of father-in-law; (d) uncle-in-law; (e) husband's elder brother; (f) husband; (g) husband's elder brother's wife. The relationships were specified in advance of the intervention according to their importance, in the Bangladesh context, in the marriage decisions of adolescent girls (see Section 2.1). A total of 786 interviews with relatives of the WiLCAS female respondents were conducted during the survey.

At the start of the interview, respondents were informed that (i) the survey was being conducted as part of a study "to understand how much people know about the law in Bangladesh regarding child marriage and their beliefs and attitudes regarding the practice"; (ii) the study was not related to any government or NGO programme and that their responses would have no direct impact for them.

In all interviews, we began by collecting background information on the respondent. This included information on the respondents' parental background; schooling; own marriage history; exposure to information on child marriage through the media; knowledge of child marriage law. In interviews with female respondents, we also collected marriage-related information on their daughters. Next, we administered a randomised information treatment and collected information on a number of attitudinal and behavioural measures relating to child marriage practices and traditional gender norms (these are described in detail in the next subsection).

For female respondents who had unmarried adolescent daughters at the time of the initial survey, we conducted two rounds of follow-up telephone interviews, 5 months and 10 months after the initial survey. The purpose of these follow-up interviews was to collect information on any steps taken towards marriage for daughters since the information intervention, including groom search, responses to marriage proposals, engagements and marriages.

## 3.2 Experimental Design and Outcome Measures

The experiment involved a video-based information intervention randomised across households along two dimensions independently of each other: (1) the video content and (2) whether or not the relevant video was shown to multiple family members. First, we randomised exposure to information about the new child marriage law. Information about the law was conveyed through a short video drama of a hypothetical case of marriage for a girl of 15. There were small variations in the story across different respondents such that some were provided with information about the new law while others were not. Specifically, a control group (C) received information about the minimum age limit for marriage and the punishment for violating the minimum age limit

under the old (CMRA 1929) law. A treatment group (T1) received information about the age limit and punishments specified in CMRA 2017 but not the exception clause. A second treatment group (T2) received information about the new law (CMRA 2017) including the exception clause. The respondents were randomised into the T1, T2 and C groups with an equal probability of being assigned to any one of the groups.

Second, primary respondents were also randomised such that either 0, 1 or 2 other members of the extended family (living in the same household or in the neighbourhood) received the same treatment as the primary respondent to whom they were related (the procedure for selecting specific individuals from the household or extended family is described in the previous subsection). The videos were displayed on a handheld electronic device that the enumerators used to collect the survey data. For each respondent, the enumerators initiated the video by tapping on a designated link embedded into the questionnaire. The enumerators were not aware of the treatment/control assignment of the respondents they interviewed and the video behind each designated link. After the videos were administered, respondents were asked a number of questions to check comprehension of the information contained therein, and the video was replayed if comprehension was poor.

#### 3.2.1 Short-Term Attitudinal Outcomes

After the video had been shown, respondents were asked a number of questions to measure their beliefs and attitudes regarding child marriage practices<sup>6</sup> and traditional gender norms<sup>7</sup>. Then, respondents were read out 3 vignettes regarding child marriage where an adolescent girl and her family are faced with a dilemma involving an offer/opportunity of marriage for the girl. In the first vignette, Vignette A, an adolescent girl in grade 9 receives an offer of marriage from a man from a neighbouring village. Vi-

<sup>&</sup>lt;sup>6</sup>For example: "In your opinion, what is the appropriate age of marriage for a girl?"; "In your opinion, what do most people in this village feel is the appropriate age of marriage for a girl?"; "What do you think is the ideal age gap between a husband and a wife?"

<sup>&</sup>lt;sup>7</sup>For example: "Boys require more nutrition than girls to be strong and healthy."; "School education is more important for boys than for girls.".

gnette B describes a similar situation except that the girl's father has passed away, she has younger unmarried sisters, and the offer comes from a man who has good economic prospects (a career in the civil service). In Vignette C, the girl has a secret engagement with a boy from her school, which her parents learn about from a neighbour. The vignettes were followed by questions on what the respondent would do if she/he were the parent of the adolescent girl in the vignette, what other parents in the village would do in the same situation, and what advice they would give to the parents of the adolescent girl in the vignette. The text of the vignettes and the follow-up questions are included in the appendix.

At the end of the interview, the respondents were provided with a token gift of Taka 200 (approximately 2.50 USD) and the option of contributing all or part of this amount to a charity (NGO) that works on child marriage prevention. The portion of the gift that was due to the respondent was awarded to him or her using an existing mobile money transfer service in Bangladesh. The charity in question acts on reports about planned marriages of children and adolescents below the legal minimum age to provide legal counselling to, and mediation between, the parties involved (for example, the prospective groom and bride, their families and the complainant). This counselling takes place against the backdrop that the law enforcement authorities would be informed if the parents decide to go ahead with the marriage in spite of the information provided about the legal minimum age of marriage. Table 20 in the Appendix provides a brief description of each short-term attitudinal outcome variable.

<sup>&</sup>lt;sup>8</sup>The exact wording of the information and question addressed to the respondents is as follows: "We have a gift for you at this point. Here is 200 taka as your gift. You can keep this. However, there is a charity organization called ... that, among other activities, provides legal counselling to families around Bangladesh to prevent child marriage. They need money to continue with this effort. If you want, you can donate any part or all of this amount to this organization to continue this effort. And we can take this donation from you and send it to them on your behalf. Would you like to make a charitable donation to this organisation that discourages child marriage?"

#### 3.2.2 Follow-up Calls: Longer-Term Marriage Outcomes

The study team conducted follow-up telephone interviews in November 2018 and May 2019 respectively, i.e. approximately 5 and 10 months after the video information intervention. During each follow-up survey, the team attempted to contact all 315 female respondents who had reported, at the time of the survey in May-June 2018, having one or more unmarried daughters aged between 13 and 22. The team were able to contact and successfully conduct interviews with 278 respondents in November 2018 (attrition rate of 12%) and 254 respondents in May 2019 (attrition rate of 19%). During each interview, the respondent was asked, for each daughter, whether she had been married since June 2018 and, if not, whether the family had taken any steps related to the marriage process. Table 21 in the Appendix provides a brief description of each marriage-related outcome variable.

The follow-up interviews produced a dataset with marriage-related information on 337 daughters (261 below the age of 18) in November 2018 and 305 daughters (234 below the age of 18) in May 2018.

#### 3.2.3 Mapping Theoretical Predictions to Measured Outcomes

Table 1 provides a mapping between treatments and predicted directions of change for each type of measured outcome under each of the two theories of legal change that we test: 1) 'expressive effect' and 2) 'customary authority'.

In case of an 'expressive effect' of the new law, the treatments should lead to a change in the study participants' beliefs regarding the attitudes towards early marriage and preferred female age of marriage of other members of the community. More specifically, T1 – which provided participants information about the harsher punishments stipulated in the new law – should shift beliefs about others' preferred female marriage age in the direction of later marriage ("+ effect"); while T2 – which provided information about

<sup>&</sup>lt;sup>9</sup>For example: "Have you had discussions with your family about finding a groom for ... ?"; "Have you or your family actively sought a groom for ... ?"; "Have you or your family had a marriage offer for ... ?". A brief description of each longer-term marriage outcome collected is provided in Table 5.

the harsher punishments as well as the exception clause – could have a weaker effect in the same direction, or an effect in the opposite direction (as it is more aligned with traditional marriage practices). These shifts in beliefs regarding others' attitudes could subsequently lead to a corresponding change in the marriage timing of adolescent girls in the study participants' households. If the change in marriage outcomes is due entirely to an 'expressive effect', there should be no change in the study participants' own preferences regarding marriage age. Therefore, if they report their preferences truthfully, neither treatment should affect stated preferences.

In case of an effect via the customary authority, the treatments should lead to a shift in the preferences regarding marriage age that family elders express, as captured by their stated preferences. More specifically, knowledge about the new law may lead family elders to strategically choose, and express, a position on female marriage age that is more aligned with the new law. However, if the new law is deemed to be too distant from traditional practices and their own preferences, then they may revert to a more traditional position. Given that the exception clause is more aligned with traditional practices, the theory implies that a backlash is less likely in the case of T2 compared to T1. These shifts in preferences expressed by family elders could subsequently lead to a change in the marriage timing of adolescent girls in the household. If the change in marriage outcomes is due entirely to the customary authorities' shift in position, there need not be any change in the study participants' beliefs about other community members' attitudes towards early marriage.

Financial contributions to the charity working on child marriage prevention could, arguably, change due to either an 'expressive effect' or a strategic response by customary authorities. Although the outcome may not allow distinguishing between the alternative theoretical mechanisms, it is of interest in its own right to the extent that it reflects support for a mode of alternative dispute resolution. As noted in the previous section, the charity aims to prevent marriages of minors through legal counselling and mediation without direct involvement of law enforcement authories and the formal

court.<sup>10</sup> This may be an attractive option for both parties as it reduces the risk of criminal punishment, and the involvement of law enforcement authorities (which can harm the social reputation of the families involved even if it does not lead to criminal punishment).

## 3.3 Description of the Data

Table 2 provides descriptive statistics for the female respondents from the WiLCAS sample, while the corresponding tables for the additional respondents are provided in Table 3. According to the figures in Table 2, the main female respondent is, on average, about 33 years old, with 5 years of schooling. The vast majority (94%) are married and about two in three married before the age of 18, i.e. below the legal minimum age of marriage. Their parents had little education – on average, 3 years of schooling among their fathers and less than 1.5 years of schooling among their mothers. About one in three have an adolescent daughter below the age of 18 and thus the change in the minimum marriageable age law is pertinent for them.

Table 3 shows that the additional respondents are, on average, about 50 years old. About 62% of the sample – which includes the spouses, fathers-in-law and brothers-in-law of the main female respondent – are male. The vast majority (about 86%) are married and a third of them married below the age of 18. The parents of the additional respondents had little education – on average, 2.23 years of schooling among their fathers and about 0.93 years of schooling among their mothers.

The tables also provide a snapshot of the respondents' knowledge about the law prior to the intervention. A large majority of respondents are aware that there is a legal minimum age of marriage and most were able to state it correctly (88% for the female respondents and 83% for the additional respondents). About four out of five

<sup>&</sup>lt;sup>10</sup>The work of the charity satisfies common definitions of alternative dispute resolution (ADR). For example, according to Shavell (1995), ADR mechanisms "share the feature that a third party is involved who offers an opinion or communicates information about the dispute to the disputants." ADR is much more widely used for civil cases but has been shown to be effective in criminal cases too (see, for example, Morris (2015)).

respondents were able to state the nature of the punishment for violating the legal minimum age ("the guardian or father would be jailed or fined").

When asked about exceptions to the law, about 10% of the primary respondents (7% of the additional respondents) answered that there was an exception. Only five respondents, however, were able to name the special exemption clause in the 2017 Child Marriage Law, and two other respondents mentioned the possibility of "a court marriage"; 13% of the sample of primary respondents (6.7% of additional respondents) mentioned that an exception was possible "if the parents wanted it" or "if the family wanted it".

Respondents were asked when they had first heard about the current law regarding the minimum age of marriage. About 5% of the primary respondents (4% of additional respondents) reported hearing about it in 2017 – the year when the new law came into effect – or later. Another 13% of respondents (both in the sample of primary and additional respondents) reported hearing about it in 2015 or 2016, the two years during which various versions of the new law were widely discussed and debated in the media. These numbers put an upper bound of 18% for the proportion of respondents who might have prior knowledge about the 2017 Child Marriage Law.

Finally, the respondents were asked whether they knew of any instances in which the current law on child marriage had been implemented. About 35% reported knowing of at least one such case.

Based on these responses, we can conclude that the respondents had good knowledge of the pre-2017 law regarding child marriage: specifically, knowledge of existence, the minimum age and the consequences of violating the minimum age law. On the other hand, given that few respondents knew about the exception clause in the new child marriage law, and the fact that most had learnt about the 'current' child marriage law before the new law was proposed or legalised, it appears that very few had knowledge of the 2017 Child Marriage Restraint Act before the information intervention. Nearly half of our respondents (47.6% of female respondents and 47.3% of the additional respondents; figures not shown in the tables) report reading/hearing about child marriage

issues at least once during the previous 12 months from the radio, television, posters, newspapers or community programmes, which suggests that information about the new law is likely to reach them from one or more of these sources in the near future.

The variables included in Tables 2 and 3 are based on responses to questions addressed to the respondents before they were shown the video on child marriage. Therefore, a comparison of means provides an indication of whether the randomisation achieved balance across the three groups. Table 22 in the Appendix reports p-values for a t-test of equality of means, for the full sample of respondents, between the control group and the first treatment group and between the control group and the second treatment group. In all instances, we find that the variable means are similar across the groups, with p-values above conventional levels for detecting statistical significance, indicating that balance was achieved in assigning the respondent to the control or treatment groups. As information on marriage-related outcomes was obtained only for families with unmarried adolescent daughters at baseline (and because we focus our analysis on this group), we also check whether there is balance across the three treatment/control arms for respondents within this subsample. These balance tests are shown in Table 23 of the Appendix. Here again we find that the variable means are similar across the groups, with p-values above conventional levels for detecting statistical significance (with the exception of one out of 34 comparisons).

It is worth noting that we find substantial differences between the mean values of our respondents' stated beliefs about appropriate marriage rules and their beliefs about these norms in the rest of the community. For example, Table 26 in the Appendix shows that the mean value of "appropriate marriage age" is 18.7 years for respondents in the control group, while the corresponding mean value for "appropriate marriage age in the village" is 17.3 years. Similarly, in the case of the three vignettes describing hypothetical scenarios involving a prospective child marriage, the proportion of respondents who would support delaying the marriage is consistently higher than the proportion who believe that "most other parents in this village" would also support delaying the marriage.

We hypothesize three possible reasons for the disparities between stated views and beliefs about the views of others: (i) individuals have incorrect (biased) beliefs about the overall support within their village for female early marriage; (ii) the survey respondents exaggerated their own support for marriage postponement among adolescent girls; (iii) the views of the survey respondents are not representative of the views of the wider population within their villages. Our regression estimates in the next section provide clear evidence for (i). We argue that (iii) is also plausible given that our village samples do not constitute a random sample of the adult village population. Rather, our sample design ensures that the majority of respondents are women in the age range 24-43 years (55% of the overall sample). We address (ii) in Section 5, after presenting our estimated effects of the intervention.

## 3.4 Truthful Reporting by Survey Respondents

Before reporting on the effects of the treatment, we consider the possibility that survey respondents were not truthful in their answers and ask whether such biased reporting may have affected the treatment effects we obtain. We consider two reasons that respondents may have withheld their true opinions or actual behaviour regarding traditional marriage practices: (i) experimenter demand effects (Zizzo 2010; de Quidt, Haushofer and Roth 2018) and (ii) social desirability bias. We discuss each in turn.

The term "experimenter demand effect" refers to the possibility that study "participants may try to infer the experimenter's objective from their treatment, and then act accordingly" (de Quidt, Haushofer and Roth 2018). This may have occurred if respondents interpreted the information provided in the videos as a signal of the objectives of the study and the type of answers expected of them. However, we think this is unlikely to have happened in our context, mainly because the differences between the information provided in each of the videos were very subtle. In particular, both treatment groups received the same information as the control group about the purpose of the study and the legal minimum age of marriage (18 years). The videos shown to

the participants in the treatment groups were almost identical – shot by shot – to that shown to the control group. The only differences in information content across the three groups related to the severity of the punishment and the exceptions permitted - but this additional information does not map readily to specific answers to the questions that they were subsequently asked. Therefore, we believe it is unlikely that experimenter demand effects could explain any differences in responses or behaviour between the treatment and control groups.

We conduct one test of the hypothesis that respondents' reported attitudes and beliefs were influenced by the experimenters' inferred objective as follows. We make use of the 2014 WiLCAS, conducted with a subset of the same participants, in which respondents were asked identical questions about their beliefs and attitudes regarding traditional marriage practices. The 2014 survey was not specifically about child marriage. The questions on attitudes regarding marriage practices were posed in the middle of a three hour interview which touched upon many different aspects of the lives of women in rural Bangladesh. By contrast, participants in the 2018 survey were informed at the outset that "the purpose of the research is to understand how much people know about the law in Bangladesh regarding child marriage and their beliefs and attitudes regarding the practice." Thus, in comparison to the 2014 survey, the "experimenter's objective" would have been much more apparent to respondents of the 2018 survey.

The information provided in the video-based interventions may have provided further clues of the objectives of the study. However, the video shown to the control group in 2018 provided information that most respondents were already familiar with. In particular, the control video informed participants about the minimum marriage age, and the legal punishment for violating the minimum age threshold under the 1929 child marriage law. Nearly 90% of the primary respondents (specifically those who were interviewed in both 2014 and 2018) already knew about the minimum marriage age law before they were shown the video. Additionally, about 80% could name at least one of the punishments for violating the minimum age rule.

Thus, while the control group participants received the same information and cues about the purpose of the study as those in the treatment arms, they received little information that they were not already aware of at the time of the intervention. Based on this reasoning, we argue that if experimenter demand effects are present, we should see systematic differences in responses between the 2018 survey and the 2014 survey for the control group participants (given that these participants received a clear articulation of the "experimenter's objective" in 2018, albeit not exposed to any new information about the law).

In response to the question on the appropriate age of marriage for a woman, 52% of the respondents give the same answer in 2018 as they did in 2014. Figure 1 shows the distribution of the change in the responses. While some respondents state a higher appropriate age of marriage in 2018 than they did in 2014, a similar proportion state a lower appropriate age of marriage in 2018. The change in the mean of the responses between 2014 and 2018 is -0.1225 years and is not significantly different from zero (a t-test of the equality of means of the survey responses in 2014 and 2018 returns a p-value of 0.30). Thus, the responses of control group participants in 2018 do not seem to have been affected by experimenter demand effects, when compared with their answers from 2014. This suggests that this mechanism is unlikely to explain differences in responses between the control group and treatment groups in 2018, given that the exposure to differential experimenter demand effects between these groups is so much more subtle than the difference between the 2014 and 2018 studies.

Next we turn to the issue of social desirability bias, which, in this context, refers to the possibility that respondents' responses may have been biased by fear or discomfort in reporting behaviour contrary to the law. Respondents to the 2018 survey were asked to provide information about the marital status and marriage age of their own daughters. Of the marriages reported by the primary respondents, the marriage age was below the legal minimum age (18 years) for 69% (N=159). The median age of marriage for daughters aged 20-24 years was 17 years (N=69), which is close to the national figure of 17.2 years obtained from the 2014 Bangladesh Demographic and

Health Survey (NIPORT 2016). The high frequency of underage marriage reported among their own daughters, similar to rates obtained from other sources, suggests that the respondents had no reservations about reporting behaviour contrary to the law.

We also explore whether the respondents' reported appropriate age of marriage during the June 2018 survey can predict the marriage of their daughters 5 months and 10 months after the intervention. For this exercise, we use the sample of all daughters between the ages of 13 and 22 who were unmarried at the time of the intervention and their mothers who responded to the survey. 11 We include the same controls – characteristics of the respondents and daughters – as in Tables 10 and 11. We also include in these regressions a binary variable indicating whether the justification provided as to why the stated age was appropriate included reference to the legal minimum age. The results are shown in Tables 24 and 25 of the Appendix. We find that the respondents' reported appropriate age of marriage has no statistically significant association with the daughter's marriage 5 months after the intervention. However, it is negatively associated with marriage 10 months after the intervention: an increase in the appropriate age by one year is associated with a 3% point decline in the probability of marriage (significant at the 1% level). We also find that the appropriate age of marriage is negatively associated with the outcome "any marriage steps" both 5 months after the intervention and 10 months after the intervention (an increase in one year is associated with a 2.5% and 4.4% point decline in probability, respectively). The appropriate age of marriage is also negatively associated with the probability of accepting a marriage offer (both 5 months and 10 months after the intervention) and positively associated with the probability of declining an offer (10 months after the intervention only). We obtain similar patterns for the variable indicating whether the response makes reference to the legality of the age. The association between the stated appropriate age of marriage and longer-term marriage outcomes is reassuring as it suggests that the former reflects, at least to some extent, the true preferences of mothers with unmarried adolescent daughters.

<sup>&</sup>lt;sup>11</sup>We are unable to do this exercise for fathers or members of the extended family as they were interviewed for only a subsample of households.

## 4 Results

## 4.1 Short-Term Outcomes: Marriage-Related Beliefs and Attitudes

To investigate whether and to what extent the intervention affected beliefs and attitudes relating to child marriage practices, we regress our outcomes of interest against binary treatment indicators and a set of control variables, including parental characteristics, education, and prior knowledge regarding child marriage laws, as well as village fixed-effects. In the Appendix we also report the results of two alternative specifications: 1) a simple comparison of mean differences across treatment groups, and 2) a regression model that includes village fixed-effects but excludes control variables.<sup>12</sup>

Our baseline specification takes the following form:

$$y_{ihv} = \alpha + \beta_1 T_{1hv} + \beta_2 T_{2hv} + d_v + X_{ihv} + \varepsilon_{ihv} \tag{1}$$

where  $y_{ihv}$  is the outcome variable for respondent i in household h in village v;  $T_{khv}$  is a dummy indicating whether household h in village v received treatment k;  $d_v$  is a village-level dummy; and  $X_{ihv}$  is a vector of individual-level controls. We calculate standard errors using the Eicker-Huber-White method. To address the fact that we are looking at effects on a number of dependent variables, our main regression tables include Westfall-Young stepdown adjusted p-values to control the family-wise error rate (FWER) for each family of hypotheses (Westfall and Young, 1993).<sup>13</sup>

The short-term outcome variables are as follows: (i) appropriate age of marriage; (ii) whether a girl should have any say in choice of partner; (iii) respondents' beliefs about what others in the community feel is the appropriate age of marriage; (iv) responses to

<sup>&</sup>lt;sup>12</sup>See Table 26 and Tables 29-34 respectively.

<sup>&</sup>lt;sup>13</sup>We group families of hypotheses together by table (e.g. questions about own attitudes regarding marriage are in Table 4, while questions about community attitudes are in Table 5), but we do not group them across tables, because each table constitutes a distinct set of conceptual hypotheses regarding the predicted effects of different theories of legal change (as spelled out in section 3.2.3). Our adjusted p-values are implemented in Stata using the command wyoung (Jones, Molitor and Reif, 2019).

vignette-related questions including own choice regarding hypothetical marriage decisions; (v) beliefs about what choices others would make and approval or disapproval of a particular choice; (vi) contribution of money (from a token gift) towards a charitable organisation that works to discourage child marriage.<sup>14</sup>

The individual-level controls include age, gender, binary variables for primary school completion, primary school completion by the respondent's mother, parental ownership of half an acre of land or more, experience of marriage before 18, and having one or more daughters between the ages of 13 and 17. We also control for the respondents' prior knowledge of child marriage law by adding binary variables for whether the respondent previously knew of the minimum age law, the punishment for marriage below the legal age, and the exceptions allowed to the legal minimum age under the law; also whether the respondent learnt about the current law after 2014 (when the government first put forward its plans to change the previous child marriage law) and have heard of child marriage cases where the current law has been applied.

In Tables 4-9, we report results from the specification in equation 1 using only the sample of respondents with unmarried adolescent girls in the extended family. We focus on this sample because this is the sample for which longer-term marriage outcomes are available, and because it is plausible that the effects of the intervention might be different for respondents with unmarried adolescent girls. The estimates for the full sample are reported in the Appendix (Tables 39 to 44). From Table 4 we see that the point estimate for the effect of either treatment on the stated appropriate age of marriage is negative, though small and statistically insignificant. We also find no significant effect of either treatment on the belief that the bride and groom should have a say in their own marriage decision (column 3 of Table 4), or on beliefs about community attitudes regarding the appropriate age of marriage (Table 5).

Turning to the vignette-related questions, we fail to find an effect of the first treatment on the indicator "would support daughter's decision to delay marriage" while the second treatment had mixed effects – no effect for vignette A, a negative effect for

<sup>&</sup>lt;sup>14</sup>Table 20 provides a list of all relevant short-term outcome variables, together with their definitions.

vignette B and a positive effect on vignette C (Table 6). From Table 7, we see that the first treatment also had negative (in the case of vignettes A and B) or insignificant (vignette C) effects on the indicator "other parents in the village would support their daughter's decision to delay marriage" while the second treatment had an insignificant (vignettes A and B) or positive effects (vignette C). We obtain the clearest patterns in the case of the indicator "neighbours and extended family would approve parents' decision to support their daughter and delay marriage": the first treatment has a negative effect for all three vignettes (Table 8). The point estimates of the second treatment are also negative but smaller in magnitude and significant only in the case of vignette B.

Turning to financial contributions, we find that the first treatment had a sharp positive effect on contributions on both the extensive margin (an increase of about 17% points compared to a control mean of 36.6%) and the intensive margin (an increase of about 26 Taka compared to a control mean of 18.45 Taka). The corresponding point estimates for the second treatment are also positive but smaller in magnitude and not statistically significant (Table 9).

The estimated effects of the treatments for the full sample (Tables 39-44) are generally smaller in magnitude than those for the sample with unmarried adolescent girls in the extended family. For example contributions increase by about 6 Taka compared to a control mean of 24.19 Taka with no significant effect on the extensive margin. The overall patterns suggest that the information interventions had smaller effects on the beliefs and attitudes of individuals with no unmarried adolescent girls in the family.

# 4.2 Longer-Term Outcomes: Marriage-Related Outcomes of Adolescent Daughters

Next, we investigate whether and to what extent the intervention affects child marriage outcomes (actual marriages and steps towards marriage) after 5 months and 10 months. As before, our primary specification involves regressing the outcome variable of interest on binary variables indicating which treatment, if any, the respondent was exposed

to, along with a set of controls including characteristics of the respondent and the respondent's daughter, and the respondent's prior knowledge regarding child marriage laws.<sup>15</sup>

For these longer-term outcome variables, we use the respondent's daughter as the unit of observation, limiting the sample to unmarried daughters aged between 13 and 17 years at the time of the intervention. The regression specification takes the following form:

$$y_{jihv} = \alpha + \beta_1 T_{1hv} + \beta_2 T_{2hv} + X_{jihv} + Z_{ihv} + \varepsilon_{jihv}$$
 (2)

where  $y_{jihv}$  is the outcome variable for daughter j of respondent i in household h in village v;  $T_{khv}$  is the treatment status of household h in village v under treatment k;  $X_{jihv}$  represents the characteristics of daughter j and  $Z_{ihv}$  the characteristics of respondent i. We do not introduce village dummies in the specifications because of the small number of observations (261 after 5 months and 234 after 10 months) relative to the number of villages (80). We calculate standard errors using the Eicker-Huber-White method, and include FWER adjusted p-values as before.

The outcome variables indicate (i) whether the daughter is married at the time of the interview; (ii) whether she has received an offer of marriage since the intervention; (iii) conditional on receiving an offer of marriage, whether it has been accepted; (iv) conditional on receiving an offer of marriage, whether it has been rejected; (v) whether any steps have been taken towards the marriage of the daughter, including marriages, acceptance of marriage offers, searching for a groom, discussions within the family about searching for a groom (see Table 21 for further details).

Estimates from the regression model are shown in Tables 10 and 11. The estimates in Table 10 indicate that the first treatment *increased* the probability of marriage by 7.2% points relative to the control group (statistically significant at the 5% level) 5 months after the intervention. For the purpose of comparison, the probability of marriage in

<sup>&</sup>lt;sup>15</sup>In the Appendix we also provide a simple comparison of means across the two treatment groups and the control group.

the control group is 1.2%. The first treatment also increased the probability of receiving a marriage offer by 13.3% points (significant at the 10% level) and, conditional on an offer, increased the probability that the offer was accepted by 20.3% (significant at the 1% level). We also estimate a 8.2% point increase in the probability of any marriage steps due to the first treatment (statistically significant at the 10% level). In the case of the second treatment, we also obtain positive coefficients for all the marriage-related outcomes but these are smaller in magnitude than the point estimates for the first treatment and not statistically significant.

To investigate whether the treatment effects on marriage-related outcomes persist over time, we repeat the regressions with outcomes 10 months after the intervention. The estimated effects, shown in Table 11, reveal a similar pattern. The first treatment increased the probability of marriage by 7.1% points relative to the control group (significant at the 10% level), and the probability of any marriage steps by 11.2% points (significant at the 5% level). The estimated effects for the second treatment are again smaller and statistically insignificant with the exception of marriage offers received where we see a large positive effect (20.7% points significant at the 1% level). <sup>16</sup>

## 4.3 Heterogeneous Treatment Effects

Next, we investigate whether the information intervention had heterogeneous effects on the short-term outcomes across different family members. Specifically, we modify equation 1 by interacting the treatment dummies with the gender of the respondent. The estimates for this modified equation are reported in Tables 12-17.

The point estimates of the effects of both treatments on the appropriate marriage age reported by women are close to zero and statistically insignificant. But the corresponding effects for men are negative and statistically significant (at the 10% level for Treatment 1 and 5% level for Treatment 2). The estimates imply that information

<sup>&</sup>lt;sup>16</sup>As a robustness check, we redo the estimation using the sample of girls aged 13-16 years at the time of the survey, given that those who were aged 17 may have reached the legal minium age at the time of the follow-up surveys. In this case, we obtain estimates very similar to those in Tables 10- 11. These alternative estimates are not provided in the paper but are available upon request.

about the new law induces men to report a lower appropriate marriage age by 8-10 months on average (the difference in the estimated effects of the two treatments is not statistically significant). There is no effect on the proportion who believe marriage before 18 is appropriate for either gender, as the effect on men is due to a shift in stated appropriate marriage age in the part of the age distribution above 18 years of age.

For the other outcomes, the estimated effects for women are similar to those obtained with the original specification, while the interaction terms are small and/or statistically insignificant. However, it is worth noting that, for men, the two treatments have similar effects on financial contributions on both the extensive and intensive margin (the point estimates are similar and the differences are statistically insignificant) while, for women, the first treatment has a larger effect (the point estimates for the first treatment are larger and the differences are statistically significant).

Next, we investigate whether there are heterogeneous effects of treatment on the marriage-related outcomes of adolescent girls according to who in the extended family was exposed to the information intervention. Recall that, together with the primary respondent – a woman aged between 24 and 43 years at the time of the survey in June 2018 – a number of additional members of the extended family (0, 1 or 2, depending on a random draw) were also interviewed and exposed to the same video-based information (see Section 3.1 for further details). We exploit this variation to investigate whether exposing members of the extended family to the treatment (in addition to the mother) affects the marriage-related outcomes of adolescent girls. Specifically we construct, for each female respondent included in the June 2018 survey, a binary variable indicating whether she alone had received the treatment (binary variable = 1) or her husband or a family 'elder' had also been interviewed (and consequently provided the same video-based information; binary variable = 0). For this purpose, we define a family 'elder' as the respondent's father-in-law, mother-in-law, husband's elder brother, husband's elder brother's wife, father, mother, elder brother or elder brother's wife.

We modify equation 2 by interacting the treatment dummies with the binary variable described above. The estimates for this modified equation are reported in Tables 18-19.

In the case of Treatment 1, treating the husband and family 'elders' in addition to the main respondent yields effects that are statistically significant and larger in magnitude than those reported in Tables 10-11. In other words, when information about the new child marriage law is provided to the mother as well as other members of the extended family, the treatment 1 has a strong effect on marriage-related outcomes 5 months and 10 months after the intervention. However, if the information intervention is limited to the mother only, we can detect no effect from Treatment 1 (the sum of the coefficient of either treatment and the corresponding interaction term is close to zero and statistically insignificant for both time horizons). In the case of Treatment 2, the effect of providing information to the mother only on the probability of marriage and any marriage steps are, once again, close to zero and statistically insignificant. When the husband or a family 'elder' is provided the same information, the net effects are statistically insignificant with the exception of any marriage steps 10 months after the intervention, where the net effect is positive and statistically significant (at the 10% level).

## 5 Interpretation of Results

Next we consider whether and to what extent the results described above support any of the alternative hypotheses discussed in Section 3.2.3.

Our results on measured beliefs and attitudes in Section 4.1 do not support the 'expressive effect' theory. In particular, contrary to the theory, we find little effect on beliefs about community attitudes from either treatment. While we do find effects on beliefs about whether other parents would support their daughter's decision to delay marriage, and whether neighbours and the extended family would approve a decision to support, the estimated effects of the first treatment are negative and/or negative relative to the second treatment while the theory would predict the opposite (given that the second treatment is more aligned with the traditional position).

Both treatments lowered the appropriate age of marriage stated by men, consistent

with the notion that male family elders reverted to a more traditional position in response to a progressive law, as per the theory of the customary authority. It is worth noting that neither treatment had an effect on male respondents' willingness to support an adolescent daughter's desire to postpone marriage or their beliefs about how supportive other parents would be, which suggests that the shift in their stated appropriate age of marriage is due to strategic reasons rather than a change in their own preferences or beliefs about the preferences of others. We also find that both female and male respondents exposed to the first treatment were less likely to believe that neighbours and extended family members would approve if parents turned down a marriage proposal for an adolescent daughter. This suggests that, consistent with the notion of a backlash effect of the new law, those exposed to the first treatment expected greater pressure of early marriage from neighbours and extended family members.

Our results in Section 4.2 imply that informing adult members in rural households in Bangladesh about the harsher punishments for child marriage stipulated in a new law had a backlash effect; specifically, an acceleration of marriages for adolescent girls within the household, exactly the behaviour that the law was intended to discourage. While the effect is absent when only the mothers of the adolescent girls are informed about the new law; it is large and statistically significant when the father or a male elder within the extended family is informed about the law alongside the mother (Section 4.3). These findings are consistent with the idea of a backlash from family elders in response to the first treatment, as per the theory of the customary authority.

These results also imply that when the mother is the only person within the household to be informed, she withholds this information from other members of the family (if not, the marriage outcomes would not depend on who in the household received the information).<sup>17</sup> Such behaviour makes sense if, as implied by the estimated effects on responses to the vignette-related questions, the information about the harsher punishments in the new law does not affect a mother's support for a daughter's desire to

 $<sup>^{17}</sup>$ This echoes findings in the existing literature which provides evidence on lack of information-sharing within the household. See Baland and Ziparo (2018) for a recent review of this literature.

delay marriage but negatively affects her belief about whether neighbours and extended family members would approve such support.

The results on financial contributions imply that information about the harsher punishments in the new law increased support for the activities of the charity working on child marriage prevention. Given the estimated effects on actual marriage outcomes over the longer term, the impact on financial contributions may appear counter-intuitive. But it is plausible that, in a new environment in which traditional marriage practices have more severe consequences within the formal legal system, the alternative dispute resolution mechanism offered by the charity – with its possibility of compromise without the involvement of law enforcement authorities and the risk of criminal punishment – would appeal to both traditionalists and progressives. <sup>18</sup> The absence of an effect on financial contributions in the case of the second treatment also makes sense if we interpret the exception clause as signalling the possibility of compromise within the formal legal system.

## 5.1 Alternative Explanations

Next, we consider possible alternative explanations for the backlash effect of the law on attitudes and behaviour drawing on the theories discussed in Section 2.2.

Chen and Yeh (2014) argue that providing information about a new law can produce a backlash if the law creates the perception that the behaviour it prohibits is more widespread than previously believed. In the present context, we find that the information treatment did not change beliefs about the prevalence of child marriage within the

<sup>&</sup>lt;sup>18</sup>A large-scale survey conducted in 2017 highlighted lack of public confidence in formal legal institutions in Bangladesh and, among low income groups, a preference for consulting with community leaders to resolve disputes (Kind et al., 2018). Legal aid NGOs in Bangladesh engage in initiatives aimed at reforming the traditional justice system or *shalish*, which refers to a "community-based ... informal process through which influential local people help resolve community members' disputes." (Golub 2013) These initiatives include organising *shalish* panels, training community members to conduct *shalish*, supplementing *shalish* panel with individuals with less traditional perspectives, and training citizens to "persuade, educate and otherwise influence traditional *shalish* bodies." (Golub 2013; see also Begum 2006) In this context, the NGO for which financial contributions were sought may have been perceived as moderating rather than undermining the customary authority in resolving disputes relating to marriage timing.

community (results shown in Table 39 in the Appendix).

Acemoglu and Jackson (2017) show theoretically that a legal change that expands the range of behaviour that falls outside of the law can lead to reduced whistleblowing and, thus, an increase in the behaviour that is legally prohibited. Most of our respondents already knew the minimum age of marriage for girls at the time of the intervention (88% among the primary respondents and 83% among the additional respondents). For this subsample, the first treatment would not have shifted people's perceptions about the range of behaviour that falls outside of the law. Yet, when we re-estimate the equations for the longer-term marriage outcomes with this subsample, we still find that the treatment increased the probability of early marriage (the point estimates, albeit insignificant in some instances, are very similar to those obtained for the full sample; results shown in Tables 40-41 in the Appendix).<sup>19</sup>

The information intervention may have affected perceptions about the likelihood of enforcement of the minimum age law. Specifically, if the first treatment – information about the harsher punishment only – led to the belief that enforcement would be weaker under the new law, then this could explain why the treatment led to an increase in early marriages.<sup>20</sup> However, such a mechanism is unlikely to account for our findings given that the law was rarely enforced even before the change in child marriage law in 2017 (see Section 2.1).

Alternatively, the information intervention may have led to a perception of an increase in *future* enforcement of the law. If respondents believed that enforcement of the law would be tougher in the future, this may have induced them to marry off their adolescent daughters more quickly than they may have done otherwise. Demographers have offered a similar explanation for a spike in early marriages in the 1931 Indian Cen-

<sup>&</sup>lt;sup>19</sup>Acemoglu and Jackson (2017) also show that a legal change that increases the penalty for behaviour outside of the law can, under certain scenarios, also generate a backlash effect in a subset of the population. But this mechanism involves increased compliance in another subset of the population. Therefore, it is unlikely that this mechanism could account for the negative and large average effects we observe.

<sup>&</sup>lt;sup>20</sup>Aldashev et al. (2012a) argue that a legal reform that moves the formal law further from the custom may lead to weaker enforcement if it increases the likelihood of deviation from the written law by the police, prosecutors, and judges.

sus: in the late 1920s, parents had rushed to marry off their daughters before the 1929 Child Marriage Act came into effect – a law which set the minimum age of marriage at 14 for girls – believing that they had only a short window to continue with their traditional marriage practices (See Caldwell, Reddy and Caldwell 1983 and the references within). A recent study by Roy and Tam (2021) uses a difference-in-differences strategy to estimate that the law had an 'announcement' effect that increased the proportion of girls married at ages 5-10 by 20-29% in British India relative to the princely states. <sup>21</sup> However, we lack direct evidence indicating that a similar mechanism was at play in the case of the information intervention.

## 6 Conclusion

In this paper, we addressed the question whether a change in the formal law regarding child marriage can influence social attitudes and behaviour in a situation characterised by weak law enforcement. For this purpose, we made use of a new child marriage law in Bangladesh which was recently approved by the national parliament and conducted a randomised information treatment aimed at accelerating knowledge transmission about the new law in rural areas. Immediately after the intervention, we measured a range of outcomes for study participants, including their views on appropriate marriage customs and their beliefs about attitudes towards early marriage in their own community. Follow-up interviews were conducted five and ten months later, to collect information on marriage outcomes for adolescent girls who were unmarried at the time of the intervention.

We find some evidence that the information intervention led to a change in participants' own attitudes and behaviour, but did not substantially influence their beliefs about attitudes or practices in their community. The effect sizes we obtain are noteworthy given that it is based on a single information intervention about the new child

<sup>&</sup>lt;sup>21</sup>In a different but related context, Camilotti (2016) finds that legal sanctions against female genital cutting in Senegal lowered the age of cutting; and attributes the change in age to de-ritualisation and individualisation of FGC to lower the risk of detection and legal prosecution.

marriage law. Given that nearly half of our respondents reported hearing about child marriage issues from media sources or community programmes in the preceding 12 months (see Section 3.3), it is likely that our information intervention is reinforced by other sources in the near term, thus providing the possibility that the new law has a more sustained effect on attitudes and behaviour.

More worryingly, we find that adolescent girls in households that were informed about the harsher punishments stipulated in the new child marriage law were more likely to experience early marriage – or other steps towards marriage such as the acceptance of a marriage offer – in the months following the intervention. These perverse effects of the information intervention are absent in households where only the mother of the adolescent girl receives the information treatment; but the effects are large and statistically significant when the information is received both by the mother and (separately) by other members of the extended family.

Thus, the intervention had a 'backlash' effect against the new law, causing an acceleration of marriages for adolescent girls, the very behaviour that the law was meant to discourage. We argue that this outcome may be because family elders – who are arguably the customary authority in rural Bangladesh with regard to marriage – reverted to a more traditional position in response to a legal reform that made the formal law too remote from their own preferences and beliefs regarding the appropriate female marriage age, thereby increasing pressures of early marriage within the extended family.

Our findings carry an important message for the design of future interventions and programmes that make use of formal institutions to bring about social change on issues where tradition and custom have hitherto played a dominant role. If the formal institutions are perceived as being contradictory to the custom, then the population may respond in ways aimed at circumventing the state authority, with unintended consequences for the intended beneficiaries of the programme.

#### References

Acemoglu, D. and M. Jackson (2017), "Social norms and the enforcement of laws". Journal of the European Economic Association, Vol. 15(2), pp. 245-295.

Aldashev, G., I. Chaara, J-P. Platteau, Z. Wahhaj (2012a), "Modern Law as a Magnet to Reform Unfair Customs", *Economic Development and Cultural Change*, Vol. 60(4), pp. 795-828.

Aldashev, G., I. Chaara, J-P. Platteau, Z. Wahhaj (2012b), "Using the Law to Change the Custom", *Journal of Development Economics*, Vol. 97(2), pp. 182-200.

Amin, Sajeda, Saha, Jyotirmoy and Ahmed, Johana (2018) "Skills-building programs to reduce child marriage in Bangladesh: A randomized controlled trial," *Journal of Adolescent Health*, 63(3):293-300.

Asadullah, M.N. and Wahhaj, Z. (2016). "Child Marriage Law and Freedom of Choice in Bangladesh". *Economic & Political Weekly*, Vol. LI, 3, pp.24-26.

Asadullah, M. Niaz & Z. Wahhaj. (2019). "Early Marriage, Social Networks and the Transmission of Norms," *Economica*, Volume 86, Issue No. 344.

Auriol, E., G. Camilotti and J-P. Platteau (2018), "Eradicating Women-Hurting Customs: What Role for Social Engineering?", in *Towards Gender Equity in Development*, Eds. S. Anderson, I. Beaman, J-P. Platteau, UNU-WIDER.

Baland, J-M. and R. Ziparo (2018), "Intra-Household Bargaining in Poor Countries" in *Towards Gender Equity in Development*, Eds. S. Anderson, L. Beaman, J-P. Platteau, UNU-WIDER.

Banerjee, A., La Ferrara, E. and Orozco-Olvera, V.H., (2019). "The entertaining way to behavioral change: Fighting HIV with MTV", World Bank Policy Research Working Paper 8998.

Begum, S. (2006). The Impact of ADR towards Improving the Status of Poor Women: Reformed Shalish and NGO-Based Mediation in Bangladesh Forum of International Development Studies, (31), pp. 65-85.

Bellés-Obrero, C. and Lombardi, M., 2020. "Will you marry me, later? Age-of-marriage laws and child marriage in Mexico", *Journal of Human Resources*, pp.1219-10621R2.

Benabou, R. and J. Tirole (2012), "Laws and Norms", *IZA Discussion Paper* No. 6290.

Bursztyn, L., González, A.L. and Yanagizawa-Drott, D. (2020). "Misperceived social norms: Women working outside the home in Saudi Arabia." *American Economic* 

- Review, 110(10), pp. 2997-3029.
- Caldwell, J.C., Reddy, P.H. and Caldwell, P. (1983). "The causes of marriage change in South India". *Population Studies*, 37(3), pp.343-361.
- Camilotti, G., 2016. Interventions to stop female genital cutting and the evolution of the custom: Evidence on age at cutting in Senegal. *Journal of African Economies*, 25(1), pp.133-158
- Chari, A.V., R. Heath, A. Maertens, F. Fatima (2017). "The Causal Effect of Maternal Age at Marriage on Child Wellbeing: Evidence from India", *Journal of Development Economics*, Vol. 127, pp. 42-55.
- Chen, D.L. and Yeh, S., 2014. "The construction of morals". *Journal of Economic Behavior & Organization*, Vol. 104, pp.84-105.
- Green, D.P., Wilke, A.M. and Cooper, J., 2020. "Countering violence against women by encouraging disclosure: A mass media experiment in rural Uganda". Comparative Political Studies, 53(14), pp.2283-2320.
- De Quidt, J., Haushofer, J. and Roth, C., 2018. "Measuring and bounding experimenter demand". *American Economic Review*, 108(11), pp.3266-3302.
- Dube, L. (1997). Women and Kinship: Comparative Perspectives on Gender in South and South-East Asia. United Nations University Press Ltd. Tokyo.
- Field, E. and A. Ambrus (2008). "Early Marriage, Age of Menarche and Female Schooling Attainment in Bangladesh", *Journal of Political Economy*, Vol. 116(5), pp. 881-930
- Filmer, D. and Pritchett, L.H. (2001), "Estimating wealth effects without expenditure data—or tears: an application to educational enrollments in states of India", *Demography*, Vol. 38(1), pp. 115-132.
- Gani, M.S. (2007). "Geographical and Socio-economic Differences and Determinants in Knowledge and Occurrence of Sexually Transmitted Infections of Adolescents in Bangladesh." Masters Thesis in Public Health, Umea University, Umea, Sweden.
- Golub, S. (2013). "The Political Economy of Improving Traditional Justice Systems: A Case Study of NGO Engagement with Shalish in Bangladesh" (2013), World Bank Legal Review, Vol. (4), pp. 67-88
- Green, D.P., A. Wilke, A. and J. Cooper (2018), "Silence Begets Violence: A mass media experiment to prevent violence against women in rural Uganda", mimeo, Columbia University.
- Jones, D., D. Molitor, and J. Reif (2019). What do workplace wellness programs do? Evidence from the Illinois Workplace Wellness Study. *Quarterly Journal of Economics*

134 (4), 1747–1791.

Kind, M., M. Gramatikov, R. Núñez and N. Kernchen (2018), Justice Needs and Satisfaction in Bangladesh: Legal Problems in Daily Life, HiiL, The Hague

Mackie, G. (1996). "Ending Footbinding and Infibulation: A Convention Account". American Sociological Review Vol. 61 (6), pp. 999-1017.

Mackie, G. (2000). "Female Genital Cutting: the Beginning of the End". In B. Shell-Duncan and Y. Hernlund (Eds.), Female Circumcision in Africa: Culture, Controversy, and Change, pp. 253-282. London: Lynne Reiner Publishers.

Mackie, G. and J. LeJeune (2009). "Social Dynamics of Abandonment of Harmful Practices: a New Look at the Theory. Special Series on Social Norms and Harmful Practices", *Innocenti Working Paper*.

McAdams, R.H., 2000a. "A focal point theory of expressive law". Virginia Law Review, pp.1649-1729.

McAdams, R.H., 2000b. "An Attitudinal Theory of Expressive Law". *Oregon Law Review*, 79(2), pp. 339-390.

Morris, S.M. (2015). "Alternative Dispute Resolution in Criminal Cases - Is It Constitutional and Efficient?". Resolved: Journal of Alternative Dispute Resolution, Vol. 5.

NIPORT (2016). Bangladesh Demographic and Health Survey 2014 Final Report. NIPORT, Mitra and Associates and ICF International. Dhaka, Bangladesh, and Rockville, Maryland, USA: NIPORT, Mitra and Associates, and ICF International.

Ortner, S.B. (1978). "The Virgin and the State", Feminist Studies, Vol. 4(3), pp. 19-35.

Pew Research Center (2016). "Many Countries Allow Child Marriage". *Pew Research Center Report*. Available at http://www.pewresearch.org/fact-tank/2016/09/12/many-countries-allow-child-marriage/.

Platteau, J-P. and Z. Wahhaj (2014). "Strategic Interactions Between Modern Law and Custom". *Handbook of the Economics of Art and Culture*, Vol. 2, pp. 633-678.

Raj, A., McDougal, L. and Rusch, M.L. (2012). "Changes in prevalence of girl child marriage in South Asia". *Jama*, 307(19), pp.2027-2029.

Sekhri, S. and Debnath, S. (2014). "Intergenerational Consequences of Early Age Marriages of Girls: Effect on Children's Human Capital," *Journal of Development Studies*, Vol 50, No 12, pp 1670-1686.

Shavell, S. (1995). "Alternative dispute resolution: an economic analysis". *The Journal of Legal Studies*, 24(1), pp.1-28.

- Sunder, N., (2019). "Marriage Age, Social Status, and Intergenerational Effects in Uganda". *Demography*, 56(6), pp.2123-2146.
- Sunstein, C.R. (1996). "On the expressive function of law". University of Pennsylvania Law Review 144(5), 2021–2053.
- UNFPA (2012). Marrying Too Young: End Child Marriage. United Nations Population Fund, New York.
- UNFPA (2020). State of World Population 2020: Against My Will, United Nations Population Fund, New York.
- Wahhaj, Z. (2018). 'An Economic Model of Early Marriage', *Journal of Economic Behavior and Organization*, Vol. 152, pp. 147-176.
- Westfall, P. H. and S. S. Young (1993). Resampling-based multiple testing: Examples and methods for p-value adjustment, Volume 279. John Wiley & Sons.
- White, S.C. (1992). Arguing with the crocodile: gender and class in Bangladesh. Zed Books.
- Vogt, S., Zaid, N.A.M., Ahmed, H.E.F., Fehr, E. and Efferson, C. (2016). "Changing cultural attitudes towards female genital cutting". *Nature*, Vol. 538(7626).
- Zizzo, D.J., (2010). "Experimenter demand effects in economic experiments". Experimental Economics, 13(1), pp.75-98.

## Tables and Figures

Table 1: Mapping Theories to Measured Outcomes

rasic ii mappi	Theory:		
Effects On	1) E	2) Effect via	
Effects Off	1) Expressive Effect	Customary Authorities	
	N. D.C.	T1: -ve Effect on Elders (if backlash)	
i) Stated Preferences	No Effect	T2: less -ve Effect on	
		Elders	
ii) Beliefs about Others' Preferences	T1: +ve T2: -ve/less +ve	No Effect	
iii) Early Marriage Practice	T1: -ve T2: +ve/less -ve	T1: +ve Effect (if backlash) T2: less +ve Effect	

Note: This table provides a summary of the relevant measured outcomes and predicted directions of change for each theory that the experiment is designed to test.

## Descriptive Statistics

Table 2: Summary Statistics (Primary Respondents)

	mean	$\operatorname{sd}$	min	max	obs
Age	33.36	6.07	20.00	58.00	971
Male	0.00	0.00	0.00	0.00	971
Schooling	4.99	4.04	0.00	16.00	971
Married	0.94	0.24	0.00	1.00	971
Married before 18	0.65	0.48	0.00	1.00	971
Employed	0.15	0.35	0.00	1.00	971
2014 Norms Index $2$	0.00	1.00	-1.10	1.33	971
Father Schooling	3.02	4.06	0.00	16.00	971
Mother Schooling	1.42	2.53	0.00	15.00	971
Mother works	0.08	0.27	0.00	1.00	971
Father low pay	0.23	0.42	0.00	1.00	971
Half Acre Land	0.51	0.50	0.00	1.00	971
Adol. girl 13-17	0.34	0.58	0.00	3.00	971
Knows min age	0.88	0.32	0.00	1.00	971
Knows punishment	0.81	0.39	0.00	1.00	971
Knows age exception	0.10	0.29	0.00	1.00	971
Learnt law after 2014	0.19	0.39	0.00	1.00	971
Knows CM court case	0.36	0.48	0.00	1.00	971

Note: This table presents summary statistics of background characteristics for all primary respondents. Source: 2018 CiMLAS.

Table 3: Summary Statistics (Additional Respondents)

	mean	$\operatorname{sd}$	min	max	obs
Age	50.37	11.30	24.00	75.00	786
Male	0.62	0.48	0.00	1.00	786
Schooling	2.80	4.06	0.00	19.00	786
Married	0.87	0.34	0.00	1.00	786
Married before 18	0.33	0.47	0.00	1.00	786
Employed	0.59	0.49	0.00	1.00	786
Father Schooling	2.23	3.70	0.00	19.00	786
Mother Schooling	0.93	2.22	0.00	19.00	786
Mother works	0.08	0.27	0.00	1.00	786
Father low pay	0.23	0.42	0.00	1.00	786
Half Acre Land	0.42	0.49	0.00	1.00	786
Adol. girl 13-17	0.09	0.33	0.00	2.00	295
Knows min age	0.83	0.38	0.00	1.00	786
Knows punishment	0.78	0.41	0.00	1.00	786
Knows age exception	0.07	0.26	0.00	1.00	786
Learnt law after 2014	0.20	0.40	0.00	1.00	786
Knows CM court case	0.35	0.48	0.00	1.00	786

Note: This table presents summary statistics of background characteristics for all additional respondents. Source: 2018 CiMLAS.

# Short-Term Outcomes (Average Treatment Effects, with Controls)

Table 4: ATEs on Attitudes towards Early Marriage

	appropriate marriage age	marriage before 18 appropriate	marriage agency
treatment 1	-0.192 $(0.195)$	$0.005 \\ (0.018)$	$0.000 \\ (0.047)$
treatment 2	-0.281 $(0.257)$	0.019 $(0.022)$	-0.016 (0.061)
Observations	462	462	462
dep var mean	18.832	0.019	0.168
dep var sd	1.442	0.136	0.375
T1 FWER p-val	0.695	0.958	0.991
T2 FWER p-val	0.612	0.640	0.803
$\beta 1 = \beta 2$	0.738	0.410	0.791

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators, including village fixed effects and a variety of controls (not shown). The controls include respondent age as well as dummies for respondents' gender, marriage before age 18, primary education completion, mother's primary education completion, father's owning more than a half acre of land, knowledge of the correct legal marriage age, knowledge of the correct punishments for infractions of the child marriage law, awareness of the exception clause, learning of the law after 2014, and knowledge of a child marriage legal case. Standard errors are provided in parentheses. "dep var mean/sd" displays the mean / standard deviation of the dependent variable in the control group. In the next two rows we report Westfall-Young stepdown adjusted p-values which control the family-wise error rate (FWER) for each tested hypothesis within a table. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 ( $\beta_i$  corresponds to the coefficient of the term in the *i*th row). \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

Table 5: ATEs on Beliefs about Community Attitudes

	village: appropriate marriage age	village: people think worse marriage a/f 18
treatment 1	0.231 $(0.268)$	$0.020 \\ (0.060)$
treatment 2	0.456 $(0.282)$	$0.003 \\ (0.069)$
Observations	462	462
dep var mean	17.323	0.484
dep var sd	2.033	0.501
T1 FWER p-val	0.637	0.755
T2 FWER p-val	0.214	0.959
$\beta 1 = \beta 2$	0.365	0.794

Table 6: ATEs on Vignettes: "Would you support you daughter's decision?"

	Vignette A	Vignette B	Vignette C
treatment 1	-0.015	-0.066	0.031
	(0.040)	(0.064)	(0.058)
treatment 2	-0.056	-0.198***	0.111*
	(0.047)	(0.071)	(0.063)
Observations	462	462	462
dep var mean	0.913	0.646	0.727
dep var sd	0.283	0.480	0.447
T1 FWER p-val	0.830	0.640	0.830
T2 FWER p-val	0.255	0.015	0.149
$\beta 1 = \beta 2$	0.303	0.064	0.203

Table 7: ATEs on Vignettes: "Would others support their daughter's decision?"

	Vignette A	Vignette B	Vignette C
treatment 1	-0.127**	-0.096*	-0.055
	(0.061)	(0.058)	(0.062)
treatment 2	-0.067	-0.034	0.212***
	(0.072)	(0.063)	(0.073)
Observations	462	462	462
dep var mean	0.702	0.342	0.441
dep var sd	0.459	0.476	0.498
T1 FWER p-val	0.098	0.192	0.377
T2 FWER p-val	0.522	0.569	0.015
$\beta 1 = \beta 2$	0.377	0.326	0.000

Table 8: ATEs on Vignettes: "Would others approve of parents' decision to support daughter?"

	Vignette A	Vignette B	Vignette C
treatment 1	-0.173***	-0.160***	-0.219***
	(0.065)	(0.059)	(0.060)
treatment 2	-0.026	-0.115*	-0.068
	(0.076)	(0.066)	(0.073)
Observations	462	462	461
dep var mean	0.584	0.360	0.469
dep var sd	0.494	0.482	0.501
T1 FWER p-val	0.013	0.013	0.001
T2 FWER p-val	0.727	0.193	0.549
$\beta 1 = \beta 2$	0.038	0.467	0.029

Table 9: ATEs on Financial Contribution

	make a contribution	contribution amount
treatment 1	0.169*** (0.059)	26.045*** (6.532)
treatment 2	0.079 $(0.063)$	6.504 $(6.870)$
Observations	462	462
dep var mean	0.366	18.447
dep var sd	0.483	39.442
T1 FWER p-val	0.002	0.002
T2 FWER p-val	0.348	0.357
$\beta 1 = \beta 2$	0.168	0.008

# Marriage-Related Outcomes (Average Treatment Effects, with Controls)

Table 10: ATEs on Marriage Outcomes in Phone Survey (5 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.072** (0.031)	0.133* (0.069)	0.203*** (0.074)	-0.062 (0.129)	0.086* (0.044)
treatment 2	0.024 $(0.026)$	0.067 $(0.070)$	0.112 $(0.073)$	0.097 $(0.130)$	0.048 $(0.043)$
Observations	261	261	112	112	261
dep var mean	0.012	0.373	0.032	0.645	0.060
dep var sd	0.110	0.487	0.180	0.486	0.239
T1 FWER p-val	0.078	0.136	0.040	0.619	0.136
T2 FWER p-val	0.698	0.698	0.406	0.698	0.651
$\beta 1 = \beta 2$	0.203	0.354	0.311	0.137	0.451

Note: This table presents the results of OLS regressions of marriage-related outcomes against treatment status indicators for a sample of female children aged 13 to 17 at the time of the initial CiMLAS survey. These outcomes were collected from a phone survey conducted 5 months after the initial CiMLAS survey. A variety of controls were included (but are not shown): age of child, age at child at menarche, whether the primary respondent (PR) / child's mother was married before age 18, PR's primary education completion status, PR's knowledge of the correct legal marriage age, PR's knowledge of the correct punishments for infractions of the child marriage law, PR's awareness of the exception clause, PR's learning of the law after 2014, and PR's knowledge of a child marriage legal case. Standard errors are given in parentheses. The penultimate rows report Westfall-Young stepdown adjusted p-values which control the family-wise error rate (FWER) for each tested hypothesis within a table. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 ( $\beta_i$  corresponds to the coefficient of the term in the *i*th row). \*p < 0.10, \*\*p < 0.05, \*\*\*p < 0.01. Source: 2018 CiMLAS.

Table 11: ATEs on Marriage Outcomes in Phone Survey (10 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.069* (0.036)	0.000 (0.075)	0.183** (0.076)	-0.143 (0.091)	0.099** (0.047)
treatment 2	0.060 $(0.038)$	0.218*** (0.075)	,	-0.009 (0.082)	0.067 $(0.046)$
Observations	261	261	136	136	261
dep var mean	0.036	0.470	0.077	0.846	0.072
dep var sd	0.188	0.502	0.270	0.366	0.261
T1 FWER p-val	0.140	0.998	0.064	0.212	0.113
T2 FWER p-val	0.254	0.013	0.576	0.901	0.264
$\beta 1 = \beta 2$	0.829	0.003	0.131	0.145	0.543

Note: This table is identical to Table 10, except that it presents results for marriage-related outcomes collected 10 months after the initial CiMLAS survey. See the notes of Table 10 for more information. Standard errors are given in parentheses. \*p < 0.10, \*\*\* p < 0.05, \*\*\*\* p < 0.01. Source: 2018 CiMLAS.

#### Treatment Heterogeneity: Female vs Male Respondents

Table 12: Treatment Heterogeneity on Gender: Attitudes towards Early Marriage

	appropriate marriage age	marriage before 18 appropriate	marriage agency
treatment 1	-0.013 (0.209)	-0.000 (0.020)	0.005 (0.057)
treatment 2	-0.094 (0.281)	0.031 $(0.028)$	-0.042 (0.066)
male	0.553 $(0.337)$	-0.020 (0.036)	0.001 $(0.081)$
treatment 1 x male	-0.620 $(0.402)$	0.017 $(0.040)$	-0.012 (0.091)
treatment $2 \times \text{male}$	-0.656 $(0.424)$	-0.056 $(0.054)$	0.115 $(0.100)$
Observations	462	462	462
dep var mean	18.832	0.019	0.168
dep var sd	1.442	0.136	0.375
T1 FWER p-val	1.000	1.000	1.000
T2 FWER p-val	0.787	0.611	0.787
T1 x male FWER p-val	0.351	0.899	0.899
T2 x male FWER p-val	0.302	0.451	0.451
$\beta 1 + \beta 4 = 0$	0.089	0.641	0.923
$\beta 2 + \beta 5 = 0$	0.060	0.566	0.461
$\beta 1 = \beta 2$	0.778	0.150	0.480
$\beta 1 + \beta 4 = \beta 2 + \beta 5$	0.783	0.353	0.398

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators interacted with the gender of the respondent. The regressions also include village fixed effects and the same controls from Table 4. Standard errors are provided in parentheses, while Westfall-Young stepdown adjusted p-values to control the family-wise error rate for each tested hypothesis within a table are reported in the second half of the table. The last four rows report the p-values from a set of Wald tests ( $\beta_i$  corresponds to the coefficient of the term in the *i*th row of the table). \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

Table 13: Treatment Heterogeneity on Gender: Beliefs about Community Attitudes

	village:	village:
	appropriate	people think worse
	marriage age	marriage $a/f$ 18
treatment 1	0.381	0.042
	(0.303)	(0.069)
treatment 2	0.585*	0.004
	(0.309)	(0.078)
male	0.491	0.104
	(0.385)	(0.091)
treatment 1 x male	-0.516	-0.072
	(0.497)	(0.117)
treatment $2 \times male$	-0.433	0.012
	(0.499)	(0.125)
Observations	462	462
dep var mean	17.323	0.484
dep var sd	2.033	0.501
T1 FWER p-val	0.368	0.537
T2 FWER p-val	0.129	0.967
T1 x male FWER p-val	0.500	0.511
T2 x male FWER p-val	0.621	0.924
$\beta 1 + \beta 4 = 0$	0.763	0.765
$\beta 2 + \beta 5 = 0$	0.747	0.891
$\beta 1 = \beta 2$	0.453	0.608
$\beta 1 + \beta 4 = \beta 2 + \beta 5$	0.520	0.680

Table 14: Treatment Heterogeneity on Gender: Vignettes - "Would you support you daughter's decision?"

	Vignette A	Vignette B	Vignette C
treatment 1	-0.034	-0.088	0.038
	(0.047)	(0.074)	(0.068)
treatment 2	-0.066	-0.180**	0.105
	(0.053)	(0.078)	(0.067)
male	0.025	-0.000	0.056
	(0.069)	(0.089)	(0.084)
treatment 1 x male	0.064	0.074	-0.022
	(0.068)	(0.118)	(0.116)
treatment 2 x male	0.030	-0.090	0.032
	(0.086)	(0.123)	(0.111)
Observations	462	462	462
dep var mean	0.913	0.646	0.727
dep var sd	0.283	0.480	0.447
T1 FWER p-val	0.741	0.565	0.741
T2 FWER p-val	0.232	0.072	0.232
T1 x male FWER p-val	0.725	0.779	0.849
T2 x male FWER p-val	0.917	0.817	0.917
$\beta 1 + \beta 4 = 0$	0.602	0.894	0.871
$\beta 2 + \beta 5 = 0$	0.639	0.020	0.203
$\beta 1 = \beta 2$	0.466	0.241	0.335
$\beta 1 + \beta 4 = \beta 2 + \beta 5$	0.315	0.036	0.294

Table 15: Treatment Heterogeneity on Gender: Vignettes - "Would others support their daughter's decision?"

	Vignette A	Vignette B	Vignette C
treatment 1	-0.159**	-0.107	-0.067
	(0.070)	(0.066)	(0.074)
treatment 2	-0.084	-0.047	0.182**
	(0.081)	(0.069)	(0.080)
male	0.012	-0.063	-0.067
	(0.092)	(0.081)	(0.090)
treatment 1 x male	0.112	0.037	0.042
	(0.110)	(0.108)	(0.120)
treatment 2 x male	0.047	0.046	0.118
	(0.117)	(0.107)	(0.120)
Observations	462	462	462
dep var mean	0.702	0.342	0.441
dep var sd	0.459	0.476	0.498
T1 FWER p-val	0.064	0.207	0.391
T2 FWER p-val	0.434	0.472	0.071
T1 x male FWER p-val	0.663	0.919	0.919
T2 x male FWER p-val	0.877	0.877	0.685
$\beta 1 + \beta 4 = 0$	0.628	0.467	0.805
$\beta 2 + \beta 5 = 0$	0.728	0.995	0.009
$\beta 1 = \beta 2$	0.302	0.382	0.002
$\beta 1 + \beta 4 = \beta 2 + \beta 5$	0.929	0.517	0.006

Table 16: Treatment Heterogeneity on Gender: Vignettes - "Would others approve of parents' decision to support daughter?"

	Vignette A	Vignette B	Vignette C
treatment 1	-0.158**	-0.160**	-0.227***
	(0.073)	(0.067)	(0.071)
treatment 2	0.006	-0.092	-0.098
	(0.082)	(0.075)	(0.079)
male	0.096	-0.112	-0.102
	(0.096)	(0.087)	(0.086)
treatment 1 x male	-0.052	-0.004	0.029
	(0.123)	(0.105)	(0.107)
treatment 2 x male	-0.126	-0.093	0.123
	(0.135)	(0.109)	(0.127)
Observations	462	462	461
dep var mean	0.584	0.360	0.469
dep var sd	0.494	0.482	0.501
T1 FWER p-val	0.034	0.034	0.009
T2 FWER p-val	0.942	0.470	0.470
T1 x male FWER p-val	0.955	0.973	0.955
T2 x male FWER p-val	0.649	0.649	0.649
$\beta 1 + \beta 4 = 0$	0.056	0.082	0.033
$\beta 2 + \beta 5 = 0$	0.345	0.063	0.843
$\beta 1 = \beta 2$	0.031	0.332	0.081
$\beta 1 + \beta 4 = \beta 2 + \beta 5$	0.478	0.823	0.070

Table 17: Treatment Heterogeneity on Gender: Financial Contributions

	make a contribution	contribution amount
treatment 1	0.189*** (0.069)	26.910*** (7.419)
treatment 2	$0.050 \\ (0.070)$	3.617 $(7.598)$
male	0.104 $(0.083)$	11.462 $(9.246)$
treatment 1 x male	-0.066 (0.103)	-2.671 (10.408)
treatment 2 x male	0.134 (0.111)	$12.770 \\ (10.513)$
Observations	462	462
dep var mean	0.366	18.447
dep var sd	0.483	39.442
T1 FWER p-val	0.005	0.002
T2 FWER p-val	0.700	0.700
T1 x male FWER p-val	0.716	0.817
T2 x male FWER p-val	0.377	0.377
$\beta 1 + \beta 4 = 0$	0.165	0.011
$\beta 2 + \beta 5 = 0$	0.082	0.103
$\beta 1 = \beta 2$	0.053	0.004
$\beta 1 + \beta 4 = \beta 2 + \beta 5$	0.573	0.501

### Treatment Heterogeneity: Treatment of Primary Respondent Only vs Treatment of Husband or Elder in Addition

Table 18: ATEs on Marriage Outcomes in Phone Survey (5 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.110** (0.045)	0.130 (0.097)	0.279** <sup>*</sup> (0.101)	* -0.170 (0.174)	0.146** (0.062)
treatment 2	0.025 $(0.023)$	0.167* (0.098)	0.112 $(0.086)$	$0.140 \\ (0.161)$	$0.045 \\ (0.050)$
T1 x wife only	-0.079 $(0.062)$	0.011 $(0.143)$	-0.184 $(0.156)$	0.303 $(0.267)$	-0.124 (0.088)
T2 x wife only	-0.002 $(0.049)$	-0.207 $(0.139)$	0.013 $(0.183)$	-0.123 (0.286)	0.007 $(0.084)$
only wife int.	0.024 $(0.034)$	-0.044 $(0.100)$	0.103 $(0.096)$	-0.295 $(0.213)$	$0.035 \\ (0.058)$
Observations	261	261	112	112	261
dep var mean	0.012	0.373	0.032	0.645	0.060
dep var sd	0.110	0.487	0.180	0.486	0.239
T1 FWER p-val	0.079	0.324	0.050	0.325	0.079
T2 FWER p-val	0.576	0.366	0.524	0.597	0.597
T1 x wife FWER p-val	0.514	0.946	0.527	0.527	0.488
T2 x wife FWER p-val	1.000	0.485	1.000	0.980	1.000
$\beta 1 + \beta 4 = 0$	0.462	0.173	0.407	0.503	0.723
$\beta 2 + \beta 5 = 0$	0.615	0.687	0.399	0.940	0.455
$\beta 1 = \beta 2$	0.089	0.705	0.126	0.015	0.123
$\beta 1 + \beta 4 = \beta 2 + \beta 5$	0.871	0.062	0.849	0.532	0.670

Note: This table presents the results of OLS regressions of marriage-related outcomes against treatment status indicators interacted with a dummy variable indicating whether only the primary respondent was interviewed and treated (in the base category, the primary respondent's husband or family elder was also treated). The sample, outcomes, controls and general specification (apart from the inclusion of interactions) are the same as in Table 10. As in previous tables, standard errors are given in parentheses and Westfall-Young stepdown adjusted p-values to control the family-wise error rate for each tested hypothesis within a table are reported in the second half of the table. The last 4 rows report the p-values from a number of Wald tests ( $\beta_i$  corresponds to the coefficient of the term in the *i*th row). \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

Table 19: ATEs on Marriage Outcomes in Phone Survey (10 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.166*** (0.053)	0.069 (0.107)	0.279*** (0.101)	-0.261** (0.112)	0.200*** (0.065)
treatment 2	0.079* (0.041)	0.285*** (0.104)	0.079 $(0.072)$	-0.094 $(0.097)$	0.119** (0.058)
T1 x wife only	-0.200*** (0.074)	(0.159)	-0.222 (0.173)	0.270 $(0.200)$	-0.212** (0.099)
T2 x wife only	-0.042 $(0.074)$	-0.137 $(0.157)$	-0.046 (0.135)	0.179 $(0.165)$	-0.111 (0.093)
only wife int.	0.076 $(0.047)$	0.003 $(0.119)$	0.061 $(0.096)$	-0.140 (0.133)	0.093 $(0.063)$
Observations	261	261	136	136	261
dep var mean	0.036	0.470	0.077	0.846	0.072
dep var sd	0.188	0.502	0.270	0.366	0.261
T1 FWER p-val	0.025	0.542	0.025	0.039	0.025
T2 FWER p-val	0.126	0.051	0.395	0.395	0.121
T1 x wife FWER p-val	0.045	0.415	0.415	0.415	0.119
$T2 \times wife FWER p-val$	0.746	0.711	0.746	0.615	0.568
$\beta 1 + \beta 4 = 0$	0.503	0.546	0.661	0.952	0.877
$\beta 2 + \beta 5 = 0$	0.563	0.192	0.773	0.531	0.919
$\beta 1 = \beta 2$	0.177	0.029	0.085	0.170	0.292
$\beta 1 + \beta 4 = \beta 2 + \beta 5$	0.207	0.038	0.843	0.592	0.793

Note: This table is identical to Table 18, except that it presents results for marriage-related outcomes collected 10 months after the initial CiMLAS survey. See the notes of Table 18 for more information. Standard errors are given in parentheses. \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

## Figures

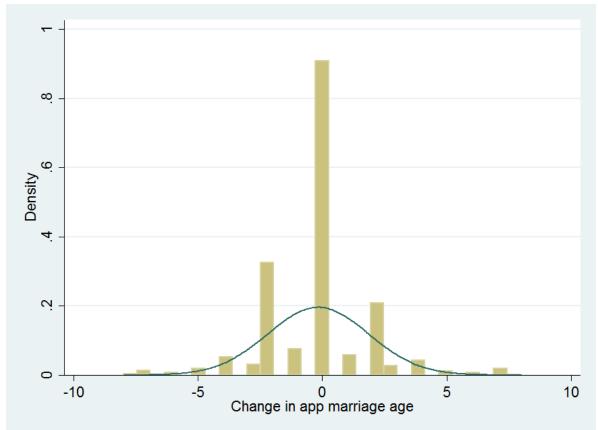


Figure 1: Change in Appropriate Marriage Age

Note: This figure reports the distribution of the change (between 2014 and 2018) in respondents' responses to the question: what is the appropriate age of marriage for a woman. Source: 2018 CiMLAS and 2014 WiLCAS.

## Appendix

Table 20: Description of Short-term Attitudinal Outcomes

	Description of Short-term Attitudinal Outcomes
Variable	Description
appropriate marriage age	Appropriate age of marriage for girls/women reported by
	respondent
marriage before 18	= 1 if Approp. marriage age $< 18, 0$ otherwise
appropriate	
marriage agency	= 1 if respondent believes the bride and groom should choose
	their own marriage partners, 0 otherwise
village: appropriate	Respondent's belief about appropriate age of marriage for
marriage age	girls/women within his/her village
village: people think	= 1 if respondent believes his/her village thinks worse of girls
worse marriage $a/f$ 18	who marry above age 18, 0 otherwise
Vignette A support	= 1 if respondent supports marriage postponement in Vignette
	A, 0 otherwise
Vignette A others	= 1 if respondent believes other parents in village would support
support	marriage postponement in Vignette A, 0 otherwise
VA oth. approve support	= 1 if respondent approves decision to postpone marriage in
	Vignette A
Vignette B support	= 1 if respondent supports marriage postponement in Vignette
	B, 0 otherwise
Vignette B others support	= 1 if respondent believes other parents in village would support
	marriage postponement in Vignette B, 0 otherwise
VB oth. approve support	= 1 if respondent approves decision to postpone marriage in
	Vignette B
Vignette C support	= 1 if respondent supports marriage postponement in Vignette
	C, 0 otherwise
Vignette C others	= 1 if respondent believes other parents in village would support
support	marriage postponement in Vignette C, 0 otherwise
VC oth. approve support	= 1 if respondent approves decision to postpone marriage in
	Vignette C
make a contribution	= 1 if respondent make positive contribution to charity, 0
	otherwise
contribution amount	Contribution amount in Bangladesh Taka

Note: This table provides a brief description of the main short-term outcome variables.

Table 21: Description of Longer-Term Marriage Outcomes

Variable	Description
Married	= 1 if adolescent is married at the time of the
	telephone interview
Received Offer	= 1 if an offer of marriage was received after the June
	2018 survey
Accepted Offer	= 1 if an offer of marriage was accepted after the June
	2018 survey
Declined Offer	= 1 if an offer of marriage was declined after the June
	2018 survey
Any Marr. Steps	= 1 if any steps towards marriage of the adolescent
	were taken after the June 2018 survey

Note: This table provides a brief description of each of the longer-term outcome variables.

Table 22: Baseline Comparison: Control vs T1 and T2, Full Sample

	control (C)	treatment 1 (T1)	p-val of diff (C - T1)	treatment 2 (T2)	p-val of diff (C - T2)
Age	41.36	40.71	(0.36)	40.82	(0.46)
Male	0.29	0.28	(0.72)	0.26	(0.27)
Schooling	4.12	4.01	(0.68)	3.90	(0.36)
Married	0.90	0.91	(0.72)	0.91	(0.57)
Married before 18	0.52	0.48	(0.23)	0.52	(1.00)
Employed	0.35	0.35	(0.99)	0.34	(0.70)
2014 Norms Index $2$	0.01	-0.01	(0.74)	0.01	(0.97)
Father Schooling	2.68	2.62	(0.80)	2.70	(0.94)
Mother Schooling	1.24	1.25	(0.95)	1.12	(0.39)
Mother works	0.09	0.07	(0.23)	0.07	(0.17)
Father low pay	0.23	0.24	(0.48)	0.23	(0.80)
Half Acre Land	0.46	0.49	(0.24)	0.46	(0.93)
Adol. girl 13-17	0.26	0.30	(0.30)	0.29	(0.52)
Knows min age	0.85	0.87	(0.21)	0.86	(0.67)
Knows punishment	0.79	0.81	(0.43)	0.79	(0.88)
Knows age exception	0.09	0.07	(0.23)	0.09	(0.63)
Learnt law after 2014	0.18	0.20	(0.43)	0.20	(0.25)
Knows CM court case	0.38	0.34	(0.17)	0.36	(0.48)
Observations	613	556	1169	588	1201

Note: This table presents average values of baseline characteristics by treatment status. Columns 3 and 5 display p-values from a t-test of the difference in means between the control group and either the Treatment 1 (T1) or Treatment 2 (T2) group. Source: 2018 CiMLAS.

Table 23: Baseline Comparison: Sample of Respondents with Unmarried Girls (13-17) in Extended Family

	control (C)	treatment 1 (T1)	p-val of diff (C - T1)	treatment 2 (T2)	p-val of diff (C - T2)
Age	44.31	43.84	(0.62)	44.69	(0.70)
Schooling	4.13	3.61	(0.19)	3.26	(0.02)
Married	0.96	0.97	(0.73)	0.96	(0.98)
Married before 18	0.26	0.28	(0.74)	0.32	(0.18)
Employed	0.65	0.63	(0.60)	0.62	(0.38)
2014 Norms Index 2	0.00	-0.02	(0.76)	0.01	(0.94)
Father Schooling	2.31	2.75	(0.21)	2.57	(0.44)
Mother Schooling	1.14	1.31	(0.44)	0.88	(0.18)
Mother works	0.11	0.07	(0.18)	0.08	(0.29)
Father low pay	0.24	0.27	(0.41)	0.26	(0.49)
Half Acre Land	0.43	0.45	(0.65)	0.43	(0.92)
Adol. girl 13-17	1.19	1.19	(0.98)	1.26	(0.31)
Knows min age	0.88	0.91	(0.23)	0.87	(0.80)
Knows punishment	0.81	0.84	(0.34)	0.82	(0.75)
Knows age exception	0.09	0.08	(0.67)	0.11	(0.43)
Learnt law after 2014	0.21	0.19	(0.59)	0.21	(0.98)
Knows CM court case	0.41	0.38	(0.55)	0.38	(0.59)
Observations	262	246	508	239	501

Note: This table presents average values of baseline characteristics by treatment status for respondents from families with unmarried girls aged 13 to 17 at the time of the survey. Columns 3 and 5 display p-values from a t-test of the difference in means between the control group and either the Treatment 1 (T1) or Treatment 2 (T2) group. Source: 2018 CiMLAS.

## Do Answers to Attitudinal Questions Predict Marriage-Related Outcomes?

Table 24: Marriage Outcomes for Girls Aged 13-22 in Phone Survey (5 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
Approp marriage age	-0.010 (0.007)	-0.031* (0.016)	-0.034** (0.016)	0.026 $(0.025)$	-0.025** (0.012)
Age approp b/c legal	-0.064** (0.026)	-0.068 $(0.068)$	-0.140* (0.074)	0.177* (0.103)	-0.125*** (0.042)
Observations	337	337	168	168	337
dep var mean	0.071	0.482	0.185	0.537	0.152
dep var sd	0.259	0.502	0.392	0.503	0.360
Approp marriage age FWER p-val	0.196	0.168	0.119	0.294	0.119
Age approp b/c legal FWER p-val	0.067	0.291	0.183	0.183	0.026

Note: This table presents the results of OLS regressions of marriage-related outcomes for a sample of female children (aged 13 to 17 at the time of the initial CiMLAS survey) against two measures of marriage-related attitudes held by the children's mothers (i.e. the survey's primary respondents): 1) the mothers' beliefs regarding appropriate marriage age and 2) whether or not that age is appropriate because it is the legal marriage age. The outcomes were collected from a follow-up phone survey conducted 5 months after the initial CiMLAS survey. A variety of controls were included (but are not shown): age of child, age at child at menarche, whether the primary respondent (PR) / child's mother was married before age 18, PR's primary education completion status, PR's knowledge of the correct legal marriage age, PR's knowledge of the correct punishments for infractions of the child marriage law, PR's awareness of the exception clause, PR's learning of the law after 2014, and PR's knowledge of a child marriage legal case. In the final two rows we report Westfall-Young stepdown adjusted p-values which control the family-wise error rate (FWER) for each tested hypothesis within a table. \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

Table 25: Marriage Outcomes for Girls Aged 13-22 in Phone Survey (10 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
Approp marriage age	-0.030** (0.010)	** -0.020 (0.018)	-0.033* (0.018)	0.049** (0.019)	-0.043*** (0.013)
Age approp $b/c$ legal	-0.100** (0.037)	** -0.102 (0.068)	-0.173** (0.069)	0.204*** (0.076)	-0.092* (0.055)
Observations	305	305	197	197	305
dep var mean	0.107	0.545	0.197	0.754	0.134
dep var sd	0.311	0.500	0.401	0.434	0.342
Approp marriage age FWER p-val	0.017	0.249	0.128	0.033	0.003
Age approp b/c legal FWER p-val	0.033	0.183	0.047	0.033	0.183

Note: This table presents the results of OLS regressions of marriage-related outcomes for a sample of female children (aged 13 to 17 at the time of the initial CiMLAS survey) against two measures of marriage-related attitudes held by the children's mothers (i.e. the survey's primary respondents): 1) the mothers' beliefs regarding appropriate marriage age and 2) whether or not that age is appropriate because it is the legal marriage age. The outcomes were collected from a follow-up phone survey conducted 10 months after the initial CiMLAS survey. A variety of controls were included (but are not shown): age of child, age at child at menarche, whether the primary respondent (PR) / child's mother was married before age 18, PR's primary education completion status, PR's knowledge of the correct legal marriage age, PR's knowledge of the correct punishments for infractions of the child marriage law, PR's awareness of the exception clause, PR's learning of the law after 2014, and PR's knowledge of a child marriage legal case. In the final two rows we report Westfall-Young stepdown adjusted p-values which control the family-wise error rate (FWER) for each tested hypothesis within a table. \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

#### Comparison of Mean Outcomes

Table 26: Comparison of Mean Outcomes by Treatment Status: Control vs T1 and T2

	control (C)	treatment 1 (T1)	p-val of diff (C - T1)	treatment 2 (T2)	p-val of diff (C - T2)
Approp marriage age	18.74	18.79	(0.61)	18.57	(0.06)
Approp. marry b/f 18	0.04	0.03	(0.42)	0.05	(0.32)
Approp age gap	5.47	5.51	(0.81)	5.55	(0.62)
Marriage Agency	0.22	0.21	(0.84)	0.19	(0.29)
Vill. approp. marr. age	17.30	17.32	(0.85)	17.37	(0.51)
Vill. approp. marry b/f 18	0.36	0.39	(0.29)	0.35	(0.62)
Marr a/f 18 bad	0.31	0.29	(0.48)	0.32	(0.58)
Vill expect marr b/f 18	0.46	0.43	(0.32)	0.44	(0.49)
Vill marr a/f 18 bad	0.49	0.49	(0.77)	0.45	(0.12)
Traditional Norms Index	-0.01	-0.05	(0.51)	0.06	(0.25)
Traditional Norms Index 2	0.03	-0.06	(0.10)	0.02	(0.83)
Vignette A support	0.91	0.92	(0.83)	0.91	(0.74)
Vignette A others support	0.68	0.68	(0.96)	0.68	(0.95)
VA oth. approve support	0.52	0.47	(0.07)	0.51	(0.77)
Vignette B support	0.62	0.58	(0.17)	0.54	(0.01)
Vignette B others support	0.31	0.31	(0.94)	0.31	(0.99)
VB oth. approve support	0.30	0.30	(1.00)	0.30	(0.98)
Vignette C support	0.70	0.70	(1.00)	0.69	(0.77)
Vignette C others support	0.44	0.41	(0.29)	0.47	(0.32)
VC oth. approve support	0.33	0.31	(0.42)	0.32	(0.53)
Make Contribution	0.39	0.43	(0.20)	0.40	(0.77)
Contribution Amount	24.19	30.07	(0.06)	22.14	(0.45)
Observations	613	556	1169	588	1201

Note: This table presents average values for short term outcome variables by treatment status. Columns 3 and 5 display p-values from a t-test of the difference in means between the control group and either the Treatment 1 (T1) or Treatment 2 (T2) group. Source: 2018 CiMLAS.

Table 27: Comparison of Mean Outcomes in Phone Survey (5 Months) by Treatment Status

	control (C)	treatment 1 (T1)	p-val of diff (C - T1)	treatment 2 (T2)	p-val of diff (C - T2)
Married	0.01	0.08	(0.04)	0.05	(0.18)
Received Offer	0.37	0.47	(0.21)	0.44	(0.37)
Accepted Offer	0.03	0.21	(0.01)	0.16	(0.07)
Declined Offer	0.65	0.60	(0.73)	0.74	(0.42)
Any Marr. Steps	0.06	0.13	(0.11)	0.12	(0.20)
Observations	83	92	175	86	169

Note: This table presents average values for long term outcome variables by treatment status. The data were collected in a phone survey conducted 5 months after the initial CiMLAS survey and information treatment. Columns 3 and 5 display p-values from a t-test of the difference in means between the control group and either the Treatment 1 (T1) or Treatment 2 (T2) group. Source: 2018 CiMLAS.

Table 28: Comparison of Mean Outcomes in Phone Survey (10 Months) by Treatment Status

	control (C)	treatment 1 (T1)	p-val of diff (C - T1)	treatment 2 (T2)	p-val of diff (C - T2)
Married	0.05	0.10	(0.25)	0.11	(0.17)
Received Offer	0.53	0.54	(0.88)	0.71	(0.02)
Accepted Offer	0.10	0.24	(0.10)	0.18	(0.28)
Declined Offer	0.82	0.71	(0.24)	0.77	(0.52)
Any Marr. Steps	0.09	0.18	(0.11)	0.16	(0.19)
Observations	76	78	154	80	156

Note: This table presents average values for long term outcome variables by treatment status. The data were collected in a phone survey conducted 10 months after the initial CiMLAS survey and information treatment. Columns 3 and 5 display p-values from a t-test of the difference in means between the control group and either the Treatment 1 (T1) or Treatment 2 (T2) group. Source: 2018 CiMLAS.

#### Average Treatment Effects (No Controls)

Table 29: ATEs on Attitudes towards Early Marriage

	appropriate marriage age	age appropriate because legal	marriage before 18 appropriate
treatment 1	-0.245	0.006	-0.003
	(0.199)	(0.018)	(0.046)
treatment 2	-0.265 $(0.257)$	0.018 $(0.022)$	-0.009 (0.061)
Observations dep var mean dep var sd $\beta 1 = \beta 2$	462	462	462
	18.832	0.019	0.168
	1.442	0.136	0.375
	0.940	0.461	0.924

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators, including village fixed effects (not shown). Standard errors are given in parentheses. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 ( $\beta_i$  corresponds to the coefficient of the term in the *i*th row). \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

Table 30: ATEs on Beliefs about Community Attitudes

	village: appropriate marriage age	village: parents expect marriage b/f 18
treatment 1	0.238 $(0.274)$	0.018 (0.063)
treatment 2	0.410 $(0.282)$	-0.012 (0.069)
Observations dep var mean dep var sd $\beta 1 = \beta 2$	462 17.323 2.033 0.495	462 0.484 0.501 0.649

Table 31: ATEs on Vignettes: "Would you support your daughter's decision?"

	Vignette A	Vignette B	Vignette C
treatment 1	-0.017 (0.039)	-0.077 $(0.065)$	0.023 $(0.058)$
treatment 2	-0.050 (0.047)	-0.200*** (0.071)	0.121* (0.064)
Observations	462	462	462
dep var mean	0.913	0.646	0.727
dep var sd	0.283	0.480	0.447
$\beta 1 = \beta 2$	0.406	0.079	0.116

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators, including village fixed effects (not shown). Standard errors are given in parentheses. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 ( $\beta_i$  corresponds to the coefficient of the term in the *i*th row). \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

Table 32: ATEs on Vignettes: "Would others support their daughter's decision?"

	Vignette A	Vignette B	Vignette C
treatment 1	-0.123**	-0.102*	-0.059
	(0.060)	(0.058)	(0.062)
treatment 2	-0.076	-0.028	0.205***
	(0.072)	(0.067)	(0.072)
Observations	462	462	462
dep var mean	0.702	0.342	0.441
dep var sd	0.459	0.476	0.498
$\beta 1 = \beta 2$	0.503	0.235	0.000

Table 33: ATEs on Vignettes: "Would others approve of parents' decision to support daughter?"

	Vignette A	Vignette B	Vignette C
treatment 1	-0.170***	-0.164***	-0.219***
	(0.064)	(0.061)	(0.061)
treatment 2	-0.034	-0.105	-0.059
	(0.076)	(0.068)	(0.073)
Observations	462	462	461
dep var mean	0.584	0.360	0.469
dep var sd	0.494	0.482	0.501
$\beta 1 = \beta 2$	0.058	0.335	0.019

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators, including village fixed effects (not shown). Standard errors are given in parentheses. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 ( $\beta_i$  corresponds to the coefficient of the term in the *i*th row). \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

Table 34: ATEs on Financial Contribution

	make a contribution	contribution amount
treatment 1	0.168*** (0.059)	25.570*** (6.557)
treatment 2	0.073 $(0.065)$	6.005 $(7.122)$
Observations	462	462
dep var mean	0.366	18.447
dep var sd	0.483	39.442
$\beta 1 = \beta 2$	0.139	0.009

#### Marriage-Related Outcomes (No Controls)

Table 35: ATEs on Marriage Outcomes in Phone Survey (5 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.065** (0.031)	0.103 $(0.075)$	0.177** (0.071)	-0.041 $(0.115)$	0.072 $(0.044)$
treatment 2	0.035 $(0.026)$	0.073 $(0.076)$	0.126* (0.068)	0.092 $(0.113)$	0.057 $(0.043)$
Observations dep var mean dep var sd $\beta 1 = \beta 2$	261 0.012 0.109 0.402	261 0.369 0.485 0.684	112 0.032 0.180 0.555	112 0.645 0.486 0.209	261 0.060 0.238 0.755

Note: This table presents the results of OLS regressions of marriage-related outcomes against treatment status indicators for a sample of female children aged 13 to 17 at the time of the initial CiMLAS survey. These outcomes were collected from a phone survey conducted 5 months after the initial CiMLAS survey. Standard errors are given in parentheses. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 ( $\beta_i$  corresponds to the coefficient of the term in the *i*th row). \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

Table 36: ATEs on Marriage Outcomes in Phone Survey (10 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.052 $(0.043)$	0.026 $(0.081)$	0.138* (0.082)	-0.111 (0.093)	0.091 $(0.055)$
treatment 2	0.061 $(0.044)$	0.193** (0.077)	$0.075 \\ (0.070)$	-0.053 $(0.083)$	$0.072 \\ (0.053)$
Observations dep var mean dep var sd $\beta 1 = \beta 2$	234 0.036 0.187 0.863	234 0.464 0.502 0.030	139 0.077 0.270 0.455	139 0.846 0.366 0.524	234 0.071 0.259 0.750

Note: This table presents the results of OLS regressions of marriage-related outcomes against treatment status indicators for a sample of female children aged 13 to 17 at the time of the initial CiMLAS survey. These outcomes were collected from a phone survey conducted 5 months after the initial CiMLAS survey. Standard errors are given in parentheses. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 ( $\beta_i$  corresponds to the coefficient of the term in the *i*th row). \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

Treatment Heterogeneity: Treatment of Primary Respondent Only vs Treatment of Husband or Elder of Primary Respondent in Addition (No Controls)

Table 37: ATEs on Marriage Outcomes in Phone Survey (5 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.109** (0.046)	0.100 (0.105)	0.261*** (0.094)	-0.169 (0.145)	0.129** (0.065)
treatment 2	0.023 $(0.023)$	0.123 $(0.106)$	0.087 $(0.060)$	0.135 $(0.117)$	0.024 $(0.049)$
only wife int.	0.026 $(0.026)$	-0.058 $(0.107)$	0.077 $(0.076)$	-0.316* (0.174)	0.035 $(0.054)$
treatment $1 \times \text{ only wife int.}$	-0.092 $(0.061)$	-0.007 $(0.150)$	-0.188 (0.146)	0.308 $(0.232)$	-0.121 (0.089)
treatment 2 $\times$ only wife int.	0.022 $(0.053)$	-0.108 (0.151)	0.103 $(0.152)$	-0.130 (0.227)	0.064 (0.088)
Observations $\beta 1 + \beta 4 = 0$ $\beta 2 + \beta 5 = 0$ $\beta 1 = \beta 2$ $\beta 1 + \beta 4 = \beta 2 + \beta 5$	261 0.670 0.348 0.098 0.580	261 0.389 0.889 0.831 0.461	112 0.515 0.178 0.123 0.417	112 0.447 0.979 0.013 0.445	261 0.896 0.231 0.123 0.268

Note: This table presents the results of OLS regressions of marriage-related outcomes against treatment status indicators interacted with a dummy variable indicating whether only the primary respondent was interviewd and treated (in the base category, the primary respondent's husband or family elder was also treated). The sample includes female children aged 13 to 17 at the time of the initial CiMLAS survey. These outcomes were collected from a phone survey conducted 5 months after the initial CiMLAS survey. Standard errors are given in parentheses. The last 4 rows report the p-values from a number of Wald tests ( $\beta_i$  corresponds to the coefficient of the term in the *i*th row). \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

Table 38: ATEs on Marriage Outcomes in Phone Survey (10 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.144** (0.063)	0.071 $(0.109)$	0.288*** (0.108)	-0.284** (0.119)	0.193*** (0.074)
treatment 2	0.049 $(0.046)$	0.262** (0.101)	$0.080 \\ (0.075)$	-0.097 $(0.094)$	0.097 $(0.063)$
only wife int.	0.071 $(0.057)$	0.063 $(0.117)$	0.121 $(0.101)$	-0.187 $(0.125)$	0.111 $(0.072)$
treatment $1 \times \text{ only wife int.}$	-0.210** (0.086)	-0.134 (0.164)	-0.343** (0.160)	0.395** (0.184)	-0.238** (0.112)
treatment 2 $\times$ only wife int.	0.015 $(0.092)$	-0.167 $(0.156)$	-0.006 (0.146)	0.094 $(0.170)$	-0.069 (0.111)
Observations	234	234	139	139	234
$\beta 1 + \beta 4 = 0$	0.266	0.611	0.637	0.430	0.591
$\beta 2 + \beta 5 = 0$	0.420	0.420	0.559	0.988	0.759
$\beta 1 = \beta 2$	0.180	0.063	0.073	0.130	0.270
$\beta 1 + \beta 4 = \beta 2 + \beta 5$	0.050	0.171	0.267	0.379	0.379

Note: This table presents the results of OLS regressions of marriage-related outcomes against treatment status indicators interacted with a dummy variable indicating whether only the primary respondent was interviewed and treated (in the base category, the primary respondent's husband or family elder was also treated). The sample includes female children aged 13 to 17 at the time of the initial CiMLAS survey. These outcomes were collected from a phone survey conducted 5 months after the initial CiMLAS survey. Standard errors are given in parentheses. The last 4 rows report the p-values from a number of Wald tests ( $\beta_i$  corresponds to the coefficient of the term in the *i*th row). \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

#### Average Treatment Effects (Full Sample, with Controls)

Table 39: ATEs on Attitudes towards Early Marriage

	appropriate marriage age	marriage before 18 appropriate	marriage agency
treatment 1	0.034 $(0.102)$	-0.007 (0.011)	0.005 $(0.024)$
treatment 2	-0.194** (0.099)	$0.009 \\ (0.012)$	-0.036 $(0.024)$
Observations	1757	1757	1757
dep var mean	18.741	0.039	0.217
dep var sd	1.643	0.194	0.413
$\beta 1 = \beta 2$	0.024	0.177	0.093

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators, including village fixed effects (not shown). Standard errors are given in parentheses. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 ( $\beta_i$  corresponds to the coefficient of the term in the *i*th row). \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

Table 40: ATEs on Beliefs about Community Attitudes

	village: appropriate marriage age	village: people think worse marriage a/f 18
treatment 1	0.024 $(0.117)$	-0.009 (0.029)
treatment 2	0.128 $(0.109)$	-0.061** (0.028)
Observations	1757	1757
dep var mean	17.300	0.494
dep var sd	1.911	0.500
$\beta 1 = \beta 2$	0.375	0.070

Table 41: ATEs on Vignettes: "Would you support your daughter's decision?"

	Vignette A	Vignette B	Vignette C
treatment 1	0.013 $(0.017)$	-0.035 $(0.029)$	0.016 (0.028)
treatment 2	-0.001 (0.017)	-0.060** (0.029)	0.014 $(0.027)$
Observations	1757	1757	1757
dep var mean	0.912	0.620	0.701
dep var sd	0.284	0.486	0.458
$\beta 1 = \beta 2$	0.386	0.413	0.946

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators, including village fixed effects (not shown). Standard errors are given in parentheses. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 ( $\beta_i$  corresponds to the coefficient of the term in the *i*th row). \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

Table 42: ATEs on Vignettes: "Would others support their daughter's decision?"

	Vignette A	Vignette B	Vignette C
treatment 1	-0.025	-0.012	-0.034
	(0.028)	(0.027)	(0.030)
treatment 2	-0.013 $(0.027)$	$0.002 \\ (0.027)$	0.018 $(0.030)$
Observations	1757	1757	1757
dep var mean	0.680	0.315	0.439
dep var sd	0.467	0.465	0.497
$\beta 1 = \beta 2$	0.656	0.614	0.089

Table 43: ATEs on Vignettes: "Would others approve of parent's decision to support daughter?"

	Vignette A	Vignette B	Vignette C
treatment 1	-0.061** (0.030)	-0.013 (0.028)	-0.031 (0.028)
treatment 2	-0.010 $(0.029)$	-0.007 $(0.027)$	-0.020 (0.028)
Observations	1757	1757	1756
dep var mean	0.522	0.299	0.335
dep var sd	0.500	0.458	0.472
$\beta 1 = \beta 2$	0.086	0.817	0.692

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators, including village fixed effects (not shown). Standard errors are given in parentheses. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 ( $\beta_i$  corresponds to the coefficient of the term in the *i*th row). \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Source: 2018 CiMLAS.

Table 44: ATEs on Financial Contribution

	make a contribution	contribution amount
treatment 1	0.021 $(0.028)$	6.434** (3.136)
treatment 2	-0.010 $(0.027)$	-0.168 (2.630)
Observations	1757	1757
dep var mean	0.395	24.189
dep var sd	0.489	49.400
$\beta 1 = \beta 2$	0.254	0.025

#### Perception of Incidence of Early Marriage (With Controls)

Table 45: Perception of Incidence of Early Marriage

	· · · · · · · · · · · · · · · · · · ·	3 3
	Early Marriage Common	Early Marriage Not Common
treatment 1	-0.000 (0.028)	0.011 $(0.027)$
treatment 2	-0.016 $(0.028)$	$0.020 \\ (0.027)$
Observations p-value	1757 0.572	1757 0.745

Source: 2018 CiMLAS and authors' calculations.

Note: Includes controls for respondent characteristics (not shown).

Note: Standard errors in parentheses. \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01 p-value reports a Wald test for a difference in coefficients between T1 and T2.

### Marriage-Related Outcomes in Subsample where Minimum Legal Age is Known (With Controls)

Table 46: Marriage Outcomes from June-18 to November-18 for Girls < 18

	married	received offer	accepted offer	declined offer	any marriage steps
treatment==1	0.070** (0.033)	0.112 $(0.074)$	0.201*** (0.074)	-0.034 $(0.132)$	0.079 $(0.049)$
treatment==2	0.014 $(0.026)$	$0.055 \\ (0.074)$	0.112 $(0.075)$	0.123 $(0.133)$	0.036 $(0.045)$
Observations dep var mean dep var sd	236 0.071 0.259	236 0.071 0.259	104 0.071 0.259	104 0.071 0.259	236 0.071 0.259

Source: 2018 CiMLAS and authors' calculations.

Note: Includes controls for child characteristics.

Standard errors in parentheses. \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

Table 47: Marriage Outcomes from June-18 to May-19 for Girls < 18

	married	received offer	accepted offer	declined offer	any marriage steps
treatment==1	0.074 $(0.046)$	0.048 $(0.083)$	0.156** (0.077)	-0.101 (0.093)	0.122** (0.058)
treatment==2	0.032 $(0.044)$	0.219*** (0.078)	0.041 $(0.070)$	-0.010 (0.087)	0.054 $(0.053)$
Observations dep var mean dep var sd	209 0.125 0.332	209 0.125 0.332	128 0.125 0.332	128 0.125 0.332	209 0.125 0.332

Source: 2018 CiMLAS and authors' calculations.

Note: Includes controls for child characteristics.

Standard errors in parentheses. \*p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

### A2: Vignettes

#### Introduction to Vignettes

Next I will tell you several stories about people living in villages similar to this one. I would like you to listen to the stories carefully and answer the questions that follow each one. Some of the questions will ask you to agree or disagree with a statement.

#### Vignette A

Jesmin is a 14 year-old girl attending grade 9 in secondary school. She lives with her mother, father, and two older brothers. Two months ago, her parents received a marriage proposal for Jesmin. The groom is a 32 year-old man from a neighbouring village. Jesmin told her parents that she would like to finish her schooling before getting married, but her uncles are pressuring her to accept the marriage offer immediately.

SL	Questions	Answer	Answer code
VA_01	What would you do if you were Jesmin's parent?		support your daughter's decision to delay marriage
VA_02	What do you think most other parents in this village would do if they were in this situation?		support their daughter's decision to delay marriage
VA_03	What do you think most other parents would advise Jesmin's parents to do regarding their daughter's request to postpone marriage?		support their daughter's request

Let's return to the story. Imagine that Jesmin's parents listen to her and refuse the marriage proposal so that Jesmin can finish school before marrying.

SL	Questions	strongly	somewhat	somewhat	strongly	Response
		approve	approve	disapprove	disapprove	Code
VB_04	To what extent would you approve or disapprove of Rokeya's mother's decision?	1	2	3	4	
VB_05	To what extent do you think the neighbours and extended family would approve or disapprove of Rokeya's mother's decision?		2	3	4	

#### Vignette B

Rokeya, aged 15, is the eldest of three sisters. She is enrolled in class 10 in secondary school and lives in a village like this with her mother. Her father passed away a year ago. One day her paternal uncles speak to her mother about an offer of marriage from a young BCS officer. Rokeya firmly announces that she is not interested in marrying any time soon.

SL	Questions	Answer	Answer code
VB_01	What would you do if you were Rokeya's mother?		Support your daughter's desire to delay marriage
VB_02	What do you think most other mothers in this village would do in this situation?		Support their daughter's desire to delay marriage
VB_03	What do you think most other parents in this village would advise Rokeya's mother to do regarding her daughter's refusal to the proposal?		Support her daughter's desire to delay marriage

Let's return to the story. Imagine that Rokeya's mother listens to her daughter and supports her desire to delay the marriage.

SL	Questions	strongly	somewhat	somewhat	strongly	Response
		approve	approve	disapprove	disapprove	Code
VB_04	To what extent would you approve or disapprove of Rokeya's mother's decision?		2	3	4	
VB_05	To what extent do you think the neighbours and extended family would approve or disapprove of Rokeya's mother's decision?		2	3	4	

#### Vignette C

Rita is a 16 year-old girl attending grade 10 in secondary school. Her mother works in the local primary school, and her father owns a small dry goods store. One day Rita's parents hear from a neighbour that Rita has been spending a lot of time with a local boy from her school, and that certain people in the village are gossiping about this. When asked, Rita admits to a secret engagement with the boy but she wants to finish school before she is married.

SL	Questions	Answer	Answer code		
VC_01	What would you do if you were Rita's parents?		Act quickly to arrange the marriage		
VC_02	What do you think most other parents would do in your village?		Act quickly to arrange the marriage		
VC_03	What would most other parents advise Rita's parents to do regarding their daughter's situation?		Act quickly to arrange the marriage		

Let's return to the story. Imagine that Rita's parents accept Rita's decision to postpone her marriage till she has finished school.

SL	Questions	strongly	somewhat	somewhat	strongly	Response
		approve	approve	disapprove	disapprove	Code
VC_04	To what extent would you approve or disapprove of Rita's parents' decision?	1	2	3	4	
VC_05	To what extent do you think the neighbours and extended family would approve or disapprove of Rita's parents' decision?		2	3	4	