Can Child Marriage Law Change Attitudes and Behaviour? Experimental Evidence from an Information Intervention in Bangladesh*

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Abstract

The practice of child marriage is ubiquitous in developing countries, where one in three girls is married before the age of 18. Although most developing countries have a legal minimum age of marriage, in practice marriage age is determined by social norms rather than the law. In this paper, we test the hypothesis that formal laws can influence social norms and marriage behaviour in a setting with weak law enforcement. We do this by administering a randomised video-based information treatment that accelerates knowledge transmission about a new child marriage law in Bangladesh. Our information treatments led to a change in participants' own attitudes and behaviour (including reported attitudes regarding appropriate marriage age and willingness to contribute to a charity that campaigns against child marriage), but did not substantially influence their beliefs about attitudes or practices prevalent in their community. Follow-up surveys conducted 5 and 10 months after the intervention show an *increase* in early marriage among adolescent girls within treatment households. These perverse effects are driven by households where the father and family elders were informed about the new law but are absent in households where only the mother is informed. The findings highlight a) the existence of informational frictions within housholds and b) the risk of a backlash effect against a law that contradicts traditional norms and practices.

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1 Introduction

The practice of early marriage is ubiquitous among women in developing countries, with one in three marrying before the age of 18, typically in their adolescence (UNFPA 2012). 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.[1]

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 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).

In this paper, we address the question of whether a change in child marriage law can influence social attitudes and behaviour in a setting with weak law enforcement. We do this by administering 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).

[1] See Field and Ambrus (2008), Sekhri and Debnath (2014), Chari et al. (2017), Amin et al. (2018), Asadullah and Wahhaj (2019), Sunder (2019).

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, including their views on appropriate marriage customs and their 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.

We find a large effect on contributions to the charity for 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'): average contributions increase by about 6 Taka (equal to 25% of the average contribution in the control group). By contrast, we find no effect, on average, for the treatment in which participants are informed about both the harsher punishments and the special clause in the new law

(henceforth called 'Treatment 2'). We find no effect of Treatment 1 on the appropriate female marriage age stated by respondents, but those exposed to Treatment 2 report a lower appropriate marriage age (by 0.2 years on average). We find little effect from either treatment on participants' beliefs about attitudes within their own community towards child marriage.

In the case of 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 the effects persist after 10 months. The point estimates for Treatment 2 are also positive but much smaller in magnitude and statistically insignificant. We obtain similar patterns when we consider alternative 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 husband or a family elder.

These results have a number of implications for understanding whether and how the law can influence traditional marriage practices in a setting with weak legal enforcement. First, we provide evidence that merely providing information about a new law can change attitudes, behaviour and marriage-related outcomes. However, the findings also 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. Third, the results show that there is an absence of information-sharing within the family unit, and that the strategic interests of mothers of adolescent girls are not aligned with those of the father or family elders. We argue that the 'backlash' effect we observe may be due to a perception of an increase in future enforcement of the law and/or state support for agency among adolescent girls.

Our study 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 (2018) 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).[2] This law was in place for nearly 90 years before being revised in February 2017. There are two key changes in the Child Marriage Restraint Act of 2017. First, the punishment has been made much more severe – 2 years' imprisonment or a fine of 100,000 taka (USD

[2]The Child Marriage Restraint Act of 1929 is available here: http://bdlaws.minlaw.gov.bd/print_sections_all.php?id=149

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 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.[3] 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", i.e. "sending a message about society's values" (Benabou and Tirole, 2012; see also Sunstein

[3]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

1996, McAdams 2000a). In the present context, the new law signals to the respondents how the government, legislators, child rights activists and other stakeholders view child marriage. Consequently, they may respond 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 expressed attitudes.

Secondly, the new law can serve as a new focal point (Auriol, Camilotti and Platteau 2017; see also Mackie 1996, 2000; Mackie & LeJeune 2009; McAdams 2000b). More precisely, respondents may believe that it will serve as alternative focal point, and thus lead them to change their behaviour (e.g. their expressed attitudes, their support for early marriage versus further education for adolescent girls within the community, marriage decisions of their own daughters, etc.) even if it does not affect their attitudes – or beliefs regarding the attitudes of others – towards the practice that is endorsed or prohibited by the law.

When formal law enforcement is 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 paralegal organisations or 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, a legal change that expands the range of behaviour that falls outside of the law can reduce whistleblowing (if non-compliant individuals cannot engage in whistleblowing) and thus increase the type

of behaviour that the legal change was meant to discourage (Acemoglu and Jackson, 2017).

Relatedly, in a dual legal system where one can seek recourse either in the custom or the formal law, a customary authority may provide rulings aligned with the formal law so that its subjects are not tempted to appeal to the formal legal system and, thereby, challenge his authority. 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 own beliefs (Aldashev, Chaara, Platteau and Wahhaj 2012b).

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.

To investigate whether any of these potential mechanisms are triggered by the information intervention, we measure a variety of outcomes for participants in the experiment. To explore whether there is an 'expressive effect', we collect information about participants' beliefs about attitudes towards early marriage among others, as well as the prevalence of the practice, within their own community.

We gave participants the opportunity to make contributions to a charity that works on child marriage prevention. Specifically, the charity relies on whistle-blowing by community members to identify and prevent potential cases of child marriage, and uses whistle-blowing to law enforcement authorities as a last resort. Thus, contributions to the charity constitute a measure of support for whistle-blowing activities.

To investigate whether the effects of the information intervention are mediated via family elders – who, as discussed in Section 2.1, play an influential role in marriage decisions – we provide the treatment to other members of the extended family for a randomly chosen subset of households (further details in the next section).

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.[4] 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 important (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 neighbour-

[4]Further information about the 2014 WiLCAS are available at the website www.integgra.org. See also Asadullah and Wahhaj (2019).

hood. 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 consisted of two independently randomised treatments. 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.

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[5] and traditional gender norms[6]. 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. Vignette 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.

Following the vignettes, the respondents were asked to take an Implicit Association Test to measure their implicit attitudes towards the practice of female child marriage; i.e. to what extent do they make positive or negative associations with the custom (further information about how the IAT was constructed and delivered is provided 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 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

[5]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?"

[6]For example: "Boys require more nutrition than girls to be strong and healthy."; "School education is more important for boys than for girls.".

money transfer service in Bangladesh.

The charity in question acts on reports about planned marriages of adolescents below the legal minimum age to provide legal counselling to the families involved. 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. As such, the NGO relies on whistleblowing within the community for its activities and uses whistleblowing to law enforcement authorities as a final recourse. We use the amount that respondents chose to contribute to the charity as a measure of their approval and support for whistleblowing activities regarding child marriage. Table 4 provides a brief description of each short-term attitudinal outcome.

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.[7]

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.

[7]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.

3.3 Description of the Data

Table 1 provides descriptive statistics for the female respondents from the WiLCAS sample, while the corresponding tables for the additional respondents are provided in Table 2. According to the figures in Table 1, 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 2 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 '2014 Norms Index 2' in Table 1 is constructed on the basis of the primary respondents' responses in the 2014 WiLCAS to 5 statements designed to elicit their attitudes towards traditional gender norms.[8] Specifically, the respondents were read out five statements on the allocation of resources between boys and girls, such as "Boys require more nutrition than girls to be strong and healthy" and "School education is more important for boys than for girls". For each statement, they were asked whether they "strongly agreed", "somewhat agreed", "somewhat disagreed", "strongly disagreed" or "did not know". We combine the responses to the five statements to construct two indices. For the first index, responses to individual questions were coded as 1 if the respondent 'strongly agreed' with the statement and 0 otherwise. For the second index, responses to individual questions were coded as 1 if the respondent 'strongly agreed' or

[8] Asadullah and Wahhaj (2019) use a similar index to investigate the effects of early marriage on attitudes towards traditional gender roles.

'somewhat agreed' with the statement. We construct the indices following a procedure described by Filmer and Prichett (2000) using Principal Components Analysis. Higher values of the indices reflect attitudes more in line with traditional gender roles. Each index is normalised such that the variable has a mean of 0 and a standard deviation of 1.

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 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 1 and 2 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 3 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 from a subsample of the survey respondents – specifically, female respondents with unmarried adolescent daughters – we also check whether there is balance across the three treatment/control arms within this subsample. These balance tests are shown in Table 19 in 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.

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 20 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 whether respondents in the survey were truthful in their answers and whether biased reporting may affect the treatment effects we obtain. Reasons why the respondents may have withheld their true opinions or actual behaviour regarding traditional marriage practices include: (i) experimenter demand effects (Zizzo 2010; de Quidt, Haushofer, Roth 2018): specifically, interpreting the information provided in the videos as a signal of the objectives of the study and the type of answers expected of them; (ii) social desirability bias: specifically, avoiding answers contrary to the law out of fear or discomfort in reporting such opinions

or behaviour in a survey. To investigate whether responses to questions on attitudes and beliefs may have been influenced by experimenter demand effects, 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 on 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." The information provided in the video-based interventions may have provided further clues of the objectives of the study.

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, these should be captured in differences in responses between the 2018 survey and the 2014 survey for the control group participants.

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 a significant proportion of 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 do not seem to have been affected by experimenter demand effects.

The 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 video shown to the participants in the treatment group was almost identical – shot by shot – to that shown to the control group. The only differences in information content between the treatment 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, experimenter demand effects in the treatment groups are likely to be similar to those for the control group.

Next we turn to the issue of social desirability bias: whether 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.

4 Results

4.1 Short-Term Attitudinal Outcomes

To investigate whether and to what extent the intervention affected beliefs and attitudes relating to child marriage practices, we take three approaches: (i) a comparison of means across the two treatment groups and the control group; (ii) a simple regression model where the outcome variable of interest is regressed on binary variables indicating which treatment, if any, the respondent was exposed to, together with village fixed-effects; (iii) an alternative regression model where we include additional controls, including parental characteristics, education, and prior knowledge regarding child marriage laws. In what follows we focus on the third approach, but the results of approaches i) and ii) are reported in the Appendix.[9]

Our baseline specification - following approach (iii) above - takes the following form:

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

where y_{ihv} is the outcome variable for respondent i in household h in village v; T_{hv} is the treatment status of household h in village v; 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.

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) ideal age gap between a husband and a wife; (iv) respondents' beliefs about social attitudes towards young versus older brides and parental expectations about daughters' marriage timing, within their own community; (v) attitudes towards traditional gender roles based on a composite index; (vi) response to vignette-related questions including own choice regarding hypothetical marriage decision; (vii) beliefs about what choices others would make and approval or disapproval of a particular choice; (viii) contribution of money (from a

[9] See Table 20 and Tables 23-29 respectively.

token gift) towards a charitable organisation that works to discourage child marriage.[10]

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.

The results from this specification are shown in Tables 6-12, and are summarized here. We find a negative effect of the second treatment on the respondent's stated appropriate age of marriage. The average effect is about 0.2 years and is statistically significant (at the 5% level) in both the basic regression model (Table 23) and our primary specification with controls (Table 6). By contrast, there is no effect on appropriate age of marriage in the case of the first treatment. We do find that the first treatment reduces agreement with traditional gender norms (significant at the 10% in the basic regression model and at the 5% level in the model with controls) while the effect of the second treatment is close to zero and statistically insignificant for this outcome (Table 8). There is weak evidence that informing respondents about the special clause in the new law weakens their belief that the bride and groom should have a say in their own marriage decision (Treatment 2 has a negative effect relative to Treatment 1, with the difference betwen the two coefficients statistically significant at the 10% level, in both specifications). We do not find an effect on the ideal marriage age gap from either treatment.

We find no effect of either treatment on what the respondent thinks is the preferred age of marriage in their village. We also find no effect from either treatment on agree-

[10] Table 4 provides a list of all relevant short-term outcome variables, together with their definitions.

ment with the statement that other parents in their community expect their daughters to marry before 18. However, the second treatment lowers agreement with the statement that others in the community think worse of girls who do not marry by 18. We find little effect of either treatment on response to the vignette-related questions except that the second treatment lowers support for delaying marriage in the second vignette.

In the case of financial contributions, we find that the first treatment increases average contributions by about 6 BDT (for comparison, the control group mean for this outcome is 24 BDT), an effect that is consistent across the two regression models (Tables 12 and 29). By contrast, there is no effect on contributions from the second treatment. We obtain similar results when using the natural logarithm of contributions as the dependent variable (using the subsample of positive contributors; in column 3 of Tables 12 and 29).

It is worth noting that prior knowledge about child marriage law – which respondents were quizzed on before being shown the videos – is strongly correlated with the practice. For example, knowledge of the age exception clause in the current law is associated with less support for agency of the bride and groom in marriage, weaker support for marriage postponement in vignettes B and C, and increased likelihood of donating to a charity working on child marriage prevention (not reported). Although these correlations do not necessarily imply a causal relation, they are suggestive that knowledge of the law plays an important role in forming beliefs and attitudes.

4.2 Longer-Term Marriage Outcomes

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.[11]

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:

$$y_{jihv} = \alpha + \beta T_{hv} + X_{jihv} + Z_{ihv} + \varepsilon_{jihv} \tag{2}$$

where y_{jihv} is the outcome variable for daughter j of respondent i in household h in village v; T_{hv} is the treatment status of household h in village v; 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.

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 5 for further details).

Estimates from the regression model are shown in Tables 13 and 14. The estimates in Table 13 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 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

[11] In the Appendix we also provide a simple comparison of means across the two treatment groups and the control group.

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 14, 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).[12]

4.3 Exploring Mechanisms

To summarise the main results thus far, we find that the first treatment (i.e. informing individuals about the law's new higher penalty associated with child marriage) increases respondents' reported appropriate marriage age and financial contributions to a child marriage prevention NGO, but has little effect on other reported attitudes towards early marriage and beliefs regarding the attitudes of others within the community. Yet, the same treatment appears to *accelerate* steps towards marriage for the primary respondents' adolescent daughters. These results present a puzzle that we attempt to answer in this section with further analysis.

We begin by listing a number of possible explanations (which are not mutually exclusive and not necessarily complete). First, it is possible that the respondents' reported attitudes and beliefs do not represent their true beliefs – an issue discussed

[12] 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 13- 14. These alternative estimates are not provided in the paper but are available upon request.

in Section 3.4 – or, at least, play no part in the marriage decisions made for their daughters. Second, it is possible that the treatments affected behaviour through a process not captured by the effects on short-term attitudinal outcomes discussed in Section 4.1. Rather, the treatments likely affected some other beliefs that were critical for the subsequent marriage-related decisions for their adolescent daughters. Third, the treatment may have had differential impacts on beliefs and attitudes across different members of the extended family, with certain members of the extended family playing a more influential role in decisions related to marriage timing.

To address the first possibility, we 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. We include the same controls – characteristics of the respondents and daughters – as in Tables 13 and 14. 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 15 and 16. We find that the respondents' reported appropiate age of marriage has no 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 (increase in one year associated with a 2.5% point decline in probability, statistically significant at the 5% level), and 10 months after the intervention (increase in one year associated with a 4.4% point decline in probability). 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 with the variable indicating whether the response makes reference to

the legality of the age. While these correlations may not capture true causal effects, they are suggestive that the appropriate age of marriage reported by the respondents reflects, at least to some extent, their true preferences.

The second possibility is that the first treatment affects actual marriage-related outcomes through a process not captured by its effects on short-term attitudinal outcomes. Our estimates suggest that this is likely because the first treatment *raises* reported appropriate marriage age but increases the incidence of early marriage. We cannot establish whether, and to what extent, there is a causal relationship between reported appropriate marriage age and actual marriage practice, but it is very unlikely that a preference for later marriage (as captured by a higher reported appropriate marriage age) would lead to increased early marriage. This reasoning lends support to the hypothesis that the treatments are affecting behaviour through a process not captured by these short-term attitudinal outcomes.

4.3.1 Heterogeneous Treatment Effects

To address the third possibility presented at the beginning of this subsection, we investigate whether the treatments had heterogeneous effects on short-term attitudinal outcomes. 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 32 and 33. We find that the negative effect of the second treatment on the respondent's reported appropriate age of marriage is being driven primarily by the men. The point estimate for men is -0.635 years (significant at the 1% level) while the point estimate for women is -0.062 (statistically insignificant). For both genders, the second treatment has a negative effect compared to the first treatment and the difference between the two effects is statistically significant at the 10% level. We do not find evidence of heterogeneity of treatment effects by gender for other short-term attitudinal outcomes.

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 modifed equation are reported in Tables 17-18. In the case of Treatment 1, the case where the husband and family 'elders' have been treated yield effects that are larger in magnitude than those reported in Tables 13-14 and statistically significant. 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

5.1 Understanding the Short-Term Effects

We consider whether and to what extent the results described above support any of the alternative hypotheses regarding the potential effects of the formal law on reported attitudes and short-term behaviour. In Section 4.1, we documented that receiving information about the new child marriage law affected certain of the respondent attitudes (stated opinions regarding appropriate marriage age and traditional gender norms) as well as willingness to contribute to an NGO that works on child marriage prevention. These effects occur in the expected directions: Treatment 1 (information about the harsher punishments in the new child marriage law) leads to higher contributions to NGOs, while Treatment 2 (information about both the harsher punishments and the exception clause) leads to lower stated opinions regarding appropriate marriage age. In contrast, neither treatment arm had a robust effect on respondents' beliefs regarding attitudes or practices prevalent in their community.

We argue that these findings are not consistent with the "expressive effect" of the law. The "expressive effect" involves, in theory, a shift in people's beliefs about attitudes towards child marriage within their community. We find little evidence of such shifts in response to our information treatments. A "focal point effect" would result in the respondents expressing – and acting in accordance with – their own beliefs when informed that the law is in line with these beliefs; but would not necessarily involve a shift in beliefs regarding community attitudes. The short-term effects are consistent with such an explanation but if the minimum age law is indeed serving as a new focal point following the intervention, it is difficult to explain the increase in early marriages in the longer term. Therefore, we can also rule out the "focal point effect".

Next, we consider the "whistleblowing" effect. Recall that Treatment 1 leads to increased giving to an NGO that works on child marriage prevention, while Treatment 2 has no significant effect. The NGO in question relies on whistle-blowing to identify potential cases and uses whistleblowing to law enforcement authorities as a last resort.

Thus, increased giving to the NGO in response to Treatment 1 can be interpreted as increased support for whistleblowing activities when the respondent is informed about the harsher punishments specified in the new law. The change in behaviour we document may be due to reduced fear of reprisals within their community against such behaviour. If such a mechanism is at play, the increase in early marriage in the longer term seems more puzzling. We attempt to account for the latter effect in the next subsection.

5.2 Understanding the Longer-Term Effects

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. However, 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 an elder within the extended family is also informed about the law alongside the mother (Section 4.3.1).

The first implication of these results is that there is an absence of information-sharing within the family unit. If the information provided to one member of the family was routinely communicated with others, then it would not matter who within the family was provided the information. This echoes findings in the existing literature which provides evidence on lack of information-sharing within the household.[13] Crucially, it means that when the mother is the only person within the household to be informed, she withholds this information from other members of the family, implying that the strategic interests of the mother are not aligned with that of the husband or family elders.

To better understand these results, we revisit the theories discussed in Section 2.2,

[13] See Baland and Ziparo (2018) for a recent review of this literature.

specifically the different mechanisms through which the law can have a backlash effect on attitudes and behaviour. 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 community (results shown in Table 36 in the Appendix).

Acemoglu and Jackson (2017) show 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 37-38 in the Appendix).[14] Additionally, the effects of the information intervention on financial contributions discussed in Section 4.1 suggest that the first treatment led to increased, rather than lowered, support for whistleblowing.

Aldashev et al. (2012b) describes another possible mechanism for a backlash effect: customary authorities may respond to a progressive change in the law by reverting to a more traditional position (see the discussion in Section 2.2). This mechanism requires a shift in the formal legal position – not just the penalty associated with it – and, as we have argued above, the first treatment could not have constituted such a shift in the case of respondents who already knew about the legal minimum age of marriage.

[14] 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.

As mentioned above, restricting the sample to households where all respondents knew about the minimum marriage age does not substantially change the estimated effects of the first treatment.

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.[15] 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).

Having ruled out the possible explanations above, we argue that the adverse effects of the first treatment may be due to a perception of an increase in future enforcement of the law. If respondents believed that future enforcement of the law would be tougher, this may have induced them to marry off their adolescent daughters more quickly than they may have done otherwise.[16] [17] Alternatively, the first information treatment may have created the perception that the state would henceforth be more supportive of agency among adolescent girls. Therefore, the family elders were incentivised to marry off adolescent girls before they could take advantage of the changing social landscape and demand more autonomy in choices relating to education, marriage timing, marriage partner, etc. This mechanism would explain why the effects on early marriage were weaker or absent when (i) the intervention also provided information about the exception clause; (ii) the information was provided only to mothers who, arguably, would

[15] 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.

[16] Demographers have offered a similar explanation for a spike in early marriages in the 1931 Indian Census: 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).

[17] 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.

be more supportive of agency among their daughters.

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 estimate are relatively small but noteworthy given that it is based on a single information intervention about the new child 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 the 'backlash' may have been due to a perception of an increase in future enforcement of the law and/or state support for agency among adolescent girls.

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 has 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 (2017), "Eradicating Women-Hurting Customs: What Role for Social Engineering?", *CEPR Discussion Paper in Development Economics* DP12107.

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.

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.

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.

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.

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.

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.

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.

Wahhaj, Z. (2018). 'An Economic Model of Early Marriage', *Journal of Economic Behavior and Organization*, Vol. 152, pp. 147-176.

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

Descriptive Statistics

Table 1: Summary Statistics (Primary Respondents)

	mean	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 2: Summary Statistics (Additional Respondents)

	mean	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.

Table 3: Baseline Comparison: 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)
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 4: Description of Short-term Attitudinal Outcomes

Variable	Description
Approp. marriage age	Appropriate age of marriage for girls/women reported by respondent
Approp. marry b/f 18	= 1 if Approp. marriage age < 18, 0 otherwise
Approp. age gap	Appropriate age gap between husband and wife reported by respondent
Marriage Agency	= 1 if respondent believes the bride and groom should choose their own marriage partners, 0 otherwise
Vill. approp. marr. age	Respondent's belief about appropriate age of marriage for girls/women within his/her village
Vill. approp. marry b/f 18	= 1 if Vill approp. marr. age < 18, 0 otherwise
Marr a/f 18 bad	= 1 if respondent believes his/her village thinks worse of girls who marry above age 18, 0 otherwise
Traditional Norms Index	Alignment of respondent's views with traditional gender norms, composite index based on strong agreement only
Traditional Norms Index 2	Alignment of respondent's views with traditional gender norms, composite index based on strong or moderate agreement
Vignette A support	= 1 if respondent supports marriage postponement in Vignette A, 0 otherwise
Vignette A others support	= 1 if respondent believes other parents in village would 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 support	= 1 if respondent believes other parents in village would support marriage postponement in Vignette C, 0 otherwise
VC oth. approve support	= 1 if respondent approves decision to postpone marriage in Vignette C
Make 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 5: 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.

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

Table 6: ATEs on Attitudes towards Early Marriage

	appropriate marriage age	age appropriate because legal	marriage before 18 appropriate	marriage agency
treatment 1	0.034	0.021	-0.007	0.005
	(0.102)	(0.020)	(0.011)	(0.024)
treatment 2	-0.194**	0.001	0.009	-0.036
	(0.099)	(0.019)	(0.012)	(0.024)
Observations	1757	1757	1757	1757
dep var mean	18.741	0.117	0.039	0.217
dep var sd	1.643	0.322	0.194	0.413
$\beta 1 = \beta 2$	0.024	0.337	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 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. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 7: ATEs on Beliefs about Community Attitudes

	village: appropriate marriage age	village: parents expect marriage b/f 18	village: people think worse marriage a/f 18
treatment 1	0.024	-0.018	-0.009
	(0.117)	(0.028)	(0.029)
treatment 2	0.128	-0.033	-0.061**
	(0.109)	(0.027)	(0.028)
Observations	1757	1757	1757
dep var mean	17.300	0.457	0.494
dep var sd	1.911	0.499	0.500
$\beta 1 = \beta 2$	0.375	0.590	0.070

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators, including village fixed effects and the same controls from Table 5 (not shown). Standard errors are provided in parentheses. "dep var mean/sd" displays the mean / standard deviation of the dependent variable in the control group. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 8: ATEs on Traditional Gender Norms

	Traditional Gender Norms Index 1	Traditional Gender Norms Index 2
treatment 1	-0.074	-0.118**
	(0.058)	(0.059)
treatment 2	0.007	-0.049
	(0.058)	(0.057)
Observations	1757	1757
dep var mean	-0.010	0.035
dep var sd	0.994	1.004
$\beta 1 = \beta 2$	0.171	0.235

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators, including village fixed effects and the same controls from Table 5 (not shown). Standard errors are provided in parentheses. "dep var mean/sd" displays the mean / standard deviation of the dependent variable in the control group. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 9: ATEs on Vignette A Questions

	Vignette A: would you support	Vignette A: would others support	Vignette A: others approve if parents support
treatment 1	0.013	-0.025	-0.061**
	(0.017)	(0.028)	(0.030)
treatment 2	-0.001	-0.013	-0.010
	(0.017)	(0.027)	(0.029)
Observations	1757	1757	1757
dep var mean	0.912	0.680	0.522
dep var sd	0.284	0.467	0.500
$\beta 1 = \beta 2$	0.386	0.656	0.086

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators, including village fixed effects and the same controls from Table 5 (not shown). Standard errors are provided in parentheses. "dep var mean/sd" displays the mean / standard deviation of the dependent variable in the control group. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 10: ATEs on Vignette B Questions

	Vignette B: would you support	Vignette B: would others support	Vignette B: others approve if parents support
treatment 1	-0.035	-0.012	-0.013
	(0.029)	(0.027)	(0.028)
treatment 2	-0.060**	0.002	-0.007
	(0.029)	(0.027)	(0.027)
Observations	1757	1757	1757
dep var mean	0.620	0.315	0.299
dep var sd	0.486	0.465	0.458
$\beta 1 = \beta 2$	0.413	0.614	0.817

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators, including village fixed effects and the same controls from Table 5 (not shown). Standard errors are provided in parentheses. "dep var mean/sd" displays the mean / standard deviation of the dependent variable in the control group. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 11: ATEs on Vignette C Questions

	Vignette C: would you support	Vignette C: would others support	Vignette C: others approve if parents support
treatment 1	0.016	-0.034	-0.031
	(0.028)	(0.030)	(0.028)
treatment 2	0.014	0.018	-0.020
	(0.027)	(0.030)	(0.028)
Observations	1757	1757	1756
dep var mean	0.701	0.439	0.335
dep var sd	0.458	0.497	0.472
$\beta 1 = \beta 2$	0.946	0.089	0.692

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators, including village fixed effects and the same controls from Table 5 (not shown). Standard errors are provided in parentheses. "dep var mean/sd" displays the mean / standard deviation of the dependent variable in the control group. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 12: ATEs on Financial Contribution

	make a contribution	contribution amount	log contribution amount
treatment 1	0.021	6.434**	0.160*
	(0.028)	(3.136)	(0.083)
treatment 2	-0.010	-0.168	-0.059
	(0.027)	(2.630)	(0.082)
Observations	1757	1757	719
dep var mean	0.395	24.189	3.639
dep var sd	0.489	49.400	0.985
$\beta 1 = \beta 2$	0.254	0.025	0.008

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators, including village fixed effects and the same controls from Table 5 (not shown). Standard errors are provided in parentheses. "dep var mean/sd" displays the mean / standard deviation of the dependent variable in the control group. The last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

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

Table 13: ATEs on Marriage Outcomes in Phone Survey (5 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.072**	0.133*	0.203***	-0.058	0.082*
	(0.031)	(0.070)	(0.074)	(0.128)	(0.044)
treatment 2	0.025	0.068	0.110	0.095	0.045
	(0.027)	(0.070)	(0.073)	(0.129)	(0.043)
Observations	261	261	112	112	261
dep var mean	0.012	0.369	0.032	0.645	0.060
dep var sd	0.109	0.485	0.180	0.486	0.238
$\beta 1 = \beta 2$	0.207	0.364	0.304	0.156	0.461

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 last row reports the p-value from a Wald test for a difference in coefficients between T1 and T2 (β_i corresponds to the coefficient of the term in the ith row). *p $<$ 0.10, ** p $<$ 0.05, *** p $<$ 0.01. Source: 2018 CiMLAS.

Table 14: ATEs on Marriage Outcomes in Phone Survey (10 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.071*	0.054	0.167**	-0.128	0.112**
	(0.042)	(0.079)	(0.075)	(0.089)	(0.054)
treatment 2	0.038	0.207***	0.042	-0.002	0.045
	(0.042)	(0.073)	(0.066)	(0.081)	(0.050)
Observations	234	234	139	139	234
dep var mean	0.036	0.464	0.077	0.846	0.071
dep var sd	0.187	0.502	0.270	0.366	0.259
$\beta 1 = \beta 2$	0.519	0.042	0.134	0.154	0.259

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 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. 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 (β_i corresponds to the coefficient of the term in the ith row). *p $<$ 0.10, ** p $<$ 0.05, *** p $<$ 0.01. Source: 2018 CiMLAS.

Do Answers to Attitudinal Questions Predict Marriage-Related Outcomes?

Table 15: 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	-0.028*	-0.036**	0.030	-0.025**
	(0.007)	(0.016)	(0.016)	(0.025)	(0.012)
Age approp b/c legal	-0.067**	-0.087	-0.148**	0.182*	-0.125***
	(0.026)	(0.067)	(0.074)	(0.104)	(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

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. *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 16: 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***	-0.019	-0.034*	0.051***	-0.044***
	(0.010)	(0.018)	(0.018)	(0.019)	(0.013)
Age approp b/c legal	-0.109***	-0.097	-0.185***	0.217***	-0.098*
	(0.037)	(0.068)	(0.069)	(0.075)	(0.056)
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

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. *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

Table 17: ATEs on Marriage Outcomes in Phone Survey (5 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.110**	0.130	0.279***	-0.170	0.146**
	(0.045)	(0.097)	(0.101)	(0.174)	(0.062)
treatment 2	0.025	0.167*	0.112	0.140	0.045
	(0.023)	(0.098)	(0.086)	(0.161)	(0.050)
only wife int.	0.024	-0.044	0.103	-0.295	0.035
	(0.034)	(0.100)	(0.096)	(0.213)	(0.058)
treatment 1	-0.079	0.011	-0.184	0.303	-0.124
× only wife int.	(0.062)	(0.143)	(0.156)	(0.267)	(0.088)
treatment 2	-0.002	-0.207	0.013	-0.123	0.007
× only wife int.	(0.049)	(0.139)	(0.183)	(0.286)	(0.084)
Observations	261	261	112	112	261
$\beta 1 + \beta 4 = 0$	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 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. 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 last 4 rows report the p-values from a number of Wald tests (β_i corresponds to the coefficient of the term in the ith row). *p $<$ 0.10, ** p $<$ 0.05, *** p $<$ 0.01. Source: 2018 CiMLAS.

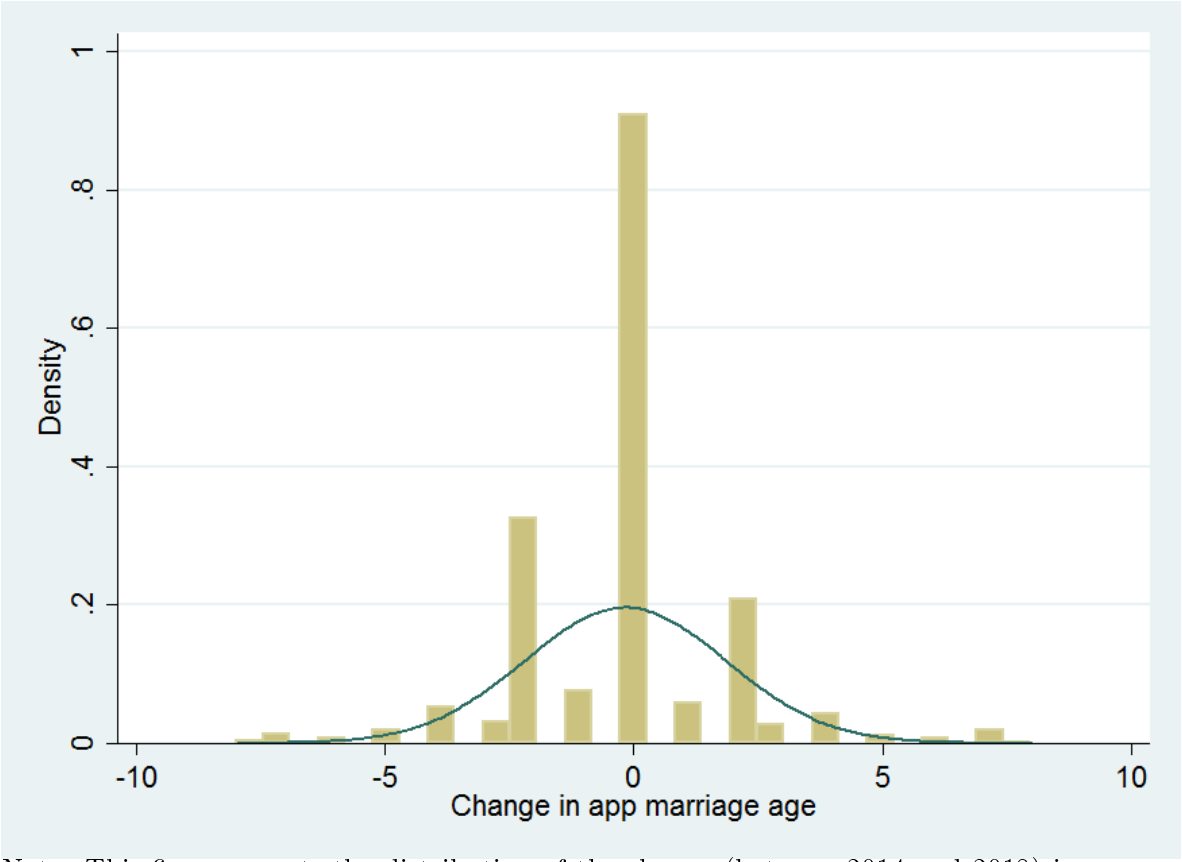
Table 18: ATEs on Marriage Outcomes in Phone Survey (10 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.150**	0.108	0.241**	-0.230**	0.188***
	(0.059)	(0.108)	(0.099)	(0.109)	(0.071)
treatment 2	0.060	0.293***	0.061	-0.082	0.106*
	(0.045)	(0.101)	(0.075)	(0.096)	(0.062)
only wife int.	0.063	0.052	0.038	-0.126	0.090
	(0.057)	(0.126)	(0.099)	(0.132)	(0.074)
treatment 1	-0.174**	-0.123	-0.182	0.243	-0.175
× only wife int.	(0.087)	(0.174)	(0.171)	(0.194)	(0.115)
treatment 2	-0.049	-0.190	-0.043	0.178	-0.140
× only wife int.	(0.085)	(0.161)	(0.135)	(0.166)	(0.104)
Observations	234	234	139	139	234
$\beta 1 + \beta 4 = 0$	0.705	0.907	0.646	0.934	0.885
$\beta 2 + \beta 5 = 0$	0.875	0.378	0.879	0.482	0.687
$\beta 1 = \beta 2$	0.201	0.052	0.114	0.213	0.324
$\beta 1 + \beta 4 = \beta 2 + \beta 5$	0.601	0.311	0.729	0.535	0.585

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 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. Standard errors are given in parentheses. The last 4 rows report the p-values from a number of Wald tests (β_i corresponds to the coefficient of the term in the ith row). *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

Balance in the Telephone Interview Sample (Female Respondents with Unmarried Adolescent Daughters)

Table 19: Baseline Comparison in Phone Sample: 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)
Age	36.90	36.91	(0.99)	36.45	(0.58)
Schooling	4.16	4.25	(0.88)	3.65	(0.39)
Married	0.95	0.93	(0.59)	0.95	(0.99)
Married before 18	0.69	0.69	(0.98)	0.79	(0.15)
Employed	0.14	0.15	(0.98)	0.12	(0.63)
2014 Norms Index 2	0.01	0.01	(0.99)	-0.13	(0.37)
Father Schooling	2.98	3.39	(0.54)	3.43	(0.48)
Mother Schooling	1.63	1.69	(0.89)	1.15	(0.24)
Mother works	0.12	0.08	(0.36)	0.07	(0.29)
Father low pay	0.28	0.26	(0.78)	0.29	(0.90)
Half Acre Land	0.43	0.52	(0.28)	0.46	(0.69)
Adol. girl 13-17	1.19	1.19	(0.98)	1.26	(0.31)
Knows min age	0.92	0.89	(0.54)	0.93	(0.76)
Knows punishment	0.83	0.83	(1.00)	0.87	(0.50)
Knows age exception	0.08	0.10	(0.71)	0.13	(0.33)
Learnt law after 2014	0.23	0.20	(0.67)	0.19	(0.54)
Knows CM court case	0.40	0.30	(0.20)	0.46	(0.39)
Observations	83	89	172	84	167

Note: This table presents average values of baseline characteristics by treatment status for those individuals with female children 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.

Comparison of Mean Outcomes

Table 20: 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 21: 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	(0.17)	0.44	(0.34)
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	(0.10)	0.12	(0.19)
Observations	84	91	175	86	170

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 22: 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	(0.23)	0.11	(0.17)
Received Offer	0.52	0.55	(0.75)	0.71	(0.01)
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	(0.10)	0.16	(0.18)
Observations	77	77	154	80	157

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 23: ATEs on Attitudes towards Early Marriage

	appropriate marriage age	age appropriate because legal	marriage before 18 appropriate	marriage agency
treatment 1	0.012	0.019	-0.007	0.001
	(0.103)	(0.020)	(0.011)	(0.024)
treatment 2	-0.226**	-0.001	0.009	-0.042*
	(0.100)	(0.019)	(0.012)	(0.024)
Observations	1757	1757	1757	1757
dep var mean	18.741	0.117	0.039	0.217
dep var sd	1.643	0.322	0.194	0.413
$\beta 1 = \beta 2$	0.021	0.361	0.152	0.078

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 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 24: ATEs on Beliefs about Community Attitudes

	village: appropriate marriage age	village: parents expect marriage b/f 18	village: people think worse marriage a/f 18
treatment 1	0.039	-0.018	-0.011
	(0.117)	(0.029)	(0.029)
treatment 2	0.133	-0.033	-0.059**
	(0.109)	(0.028)	(0.028)
Observations	1757	1757	1757
dep var mean	17.300	0.457	0.494
dep var sd	1.911	0.499	0.500
$\beta 1 = \beta 2$	0.427	0.598	0.095

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 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 25: ATEs on Traditional Gender Norms

	Traditional Gender Norms Index 1	Traditional Gender Norms Index 2
treatment 1	-0.061	-0.102*
	(0.059)	(0.059)
treatment 2	0.017	-0.033
	(0.058)	(0.058)
Observations	1757	1757
dep var mean	-0.010	0.035
dep var sd	0.994	1.004
$\beta 1 = \beta 2$	0.189	0.251

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 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 26: ATEs on Vignette A Questions

	Vignette A: would you support	Vignette A: would others support	Vignette A: others approve if parents support
treatment 1	0.013	-0.022	-0.056*
	(0.017)	(0.028)	(0.030)
treatment 2	-0.005	-0.011	-0.007
	(0.017)	(0.027)	(0.030)
Observations	1757	1757	1757
dep var mean	0.912	0.680	0.522
dep var sd	0.284	0.467	0.500
$\beta 1 = \beta 2$	0.320	0.709	0.100

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 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 27: ATEs on Vignette B Questions

	Vignette B: would you support	Vignette B: would others support	Vignette B: others approve if parents support
treatment 1	-0.038	-0.011	-0.008
	(0.029)	(0.027)	(0.028)
treatment 2	-0.063**	0.002	-0.002
	(0.029)	(0.027)	(0.027)
Observations	1757	1757	1757
dep var mean	0.620	0.315	0.299
dep var sd	0.486	0.465	0.458
$\beta 1 = \beta 2$	0.400	0.620	0.852

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 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 28: ATEs on Vignette C Questions

	Vignette C: would you support	Vignette C: would others support	Vignette C: others approve if parents support
treatment 1	0.015	-0.029	-0.024
	(0.028)	(0.030)	(0.028)
treatment 2	0.010	0.021	-0.016
	(0.028)	(0.030)	(0.028)
Observations	1757	1757	1756
dep var mean	0.701	0.439	0.335
dep var sd	0.458	0.497	0.472
$\beta 1 = \beta 2$	0.847	0.102	0.775

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 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 29: ATEs on Financial Contribution

	make a contribution	contribution amount	log contribution amount
treatment 1	0.017	5.851*	0.146*
	(0.028)	(3.158)	(0.083)
treatment 2	-0.018	-1.191	-0.075
	(0.027)	(2.666)	(0.082)
Observations	1757	1757	719
dep var mean	0.395	24.189	3.639
dep var sd	0.489	49.400	0.985
$\beta 1 = \beta 2$	0.212	0.018	0.008

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 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Marriage-Related Outcomes (No Controls)

Table 30: ATEs on Marriage Outcomes in Phone Survey (5 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.065**	0.103	0.177**	-0.041	0.072
	(0.031)	(0.075)	(0.071)	(0.115)	(0.044)
treatment 2	0.035	0.073	0.126*	0.092	0.057
	(0.026)	(0.076)	(0.068)	(0.113)	(0.043)
Observations	261	261	112	112	261
dep var mean	0.012	0.369	0.032	0.645	0.060
dep var sd	0.109	0.485	0.180	0.486	0.238
$\beta 1 = \beta 2$	0.402	0.684	0.555	0.209	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 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 31: ATEs on Marriage Outcomes in Phone Survey (10 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.052	0.026	0.138*	-0.111	0.091
	(0.043)	(0.081)	(0.082)	(0.093)	(0.055)
treatment 2	0.061	0.193**	0.075	-0.053	0.072
	(0.044)	(0.077)	(0.070)	(0.083)	(0.053)
Observations	234	234	139	139	234
dep var mean	0.036	0.464	0.077	0.846	0.071
dep var sd	0.187	0.502	0.270	0.366	0.259
$\beta 1 = \beta 2$	0.863	0.030	0.455	0.524	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 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Treatment Heterogeneity: Gender (No Controls)

Table 32: Attitudes towards Early Marriage (by gender)

	appropriate marriage age	age appropriate because legal	marriage before 18 appropriate	marriage agency
treatment 1	0.131	0.038	-0.015	0.013
	(0.108)	(0.023)	(0.013)	(0.028)
treatment 2	-0.062	0.013	0.006	-0.027
	(0.110)	(0.022)	(0.015)	(0.028)
Male	0.541***	0.026	-0.010	0.032
	(0.158)	(0.029)	(0.017)	(0.036)
treatment 1	-0.414*	-0.068	0.027	-0.044
× Male	(0.233)	(0.042)	(0.025)	(0.052)
treatment 2	-0.573***	-0.048	0.012	-0.052
× Male	(0.218)	(0.042)	(0.027)	(0.051)
Constant	18.613***	0.116***	0.042***	0.212***
	(0.074)	(0.015)	(0.010)	(0.019)
Observations	1757	1757	1757	1757
$\beta 1 + \beta 4 = 0$	0.191	0.398	0.600	0.490
$\beta 2 + \beta 5 = 0$	0.001	0.338	0.444	0.074
$\beta 1 = \beta 2$	0.084	0.314	0.110	0.148
$\beta 1 + \beta 4 = \beta 2 + \beta 5$	0.092	0.885	0.811	0.279

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators interacted with a dummy variable for gender of respondent. The regressions include 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. The last 4 rows report the p-values from a number of Wald tests (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 33: Financial Contributions (by gender)

	make a contribution	contribution amount	log contribution amount
treatment 1	-0.000231	3.544	0.0717
	(0.0328)	(3.622)	(0.0918)
treatment 2	-0.0254	-3.024	-0.145
	(0.0314)	(3.130)	(0.0936)
Male	-0.00495	-0.363	-0.0424
	(0.0401)	(4.098)	(0.123)
treatment 1	0.0616	8.295	0.266
× Male	(0.0583)	(6.572)	(0.173)
treatment 2	0.0271	6.997	0.283*
× Male	(0.0590)	(5.645)	(0.171)
Constant	0.411***	24.00***	3.650***
	(0.0223)	(2.274)	(0.0622)
Observations	1757	1757	719
$\beta 1 + \beta 4 = 0$	0.218	0.0393	0.0295
$\beta 2 + \beta 5 = 0$	0.973	0.410	0.357
$\beta 1 = \beta 2$	0.436	0.0558	0.0229
$\beta 1 + \beta 4 = \beta 2 + \beta 5$	0.260	0.156	0.176

Note: This table presents the results of OLS regressions of short term outcome variables against treatment status indicators interacted with a dummy variable for gender of respondent. The regressions include 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. The last 4 rows report the p-values from a number of Wald tests (β_i corresponds to the coefficient of the term in the ith 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 34: ATEs on Marriage Outcomes in Phone Survey (5 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.109**	0.100	0.261***	-0.169	0.129**
	(0.046)	(0.105)	(0.094)	(0.145)	(0.065)
treatment 2	0.023	0.123	0.087	0.135	0.024
	(0.023)	(0.106)	(0.060)	(0.117)	(0.049)
only wife int.	0.026	-0.058	0.077	-0.316*	0.035
	(0.026)	(0.107)	(0.076)	(0.174)	(0.054)
treatment 1	-0.092	-0.007	-0.188	0.308	-0.121
$\times$ only wife int.	(0.061)	(0.150)	(0.146)	(0.232)	(0.089)
treatment 2	0.022	-0.108	0.103	-0.130	0.064
$\times$ only wife int.	(0.053)	(0.151)	(0.152)	(0.227)	(0.088)
Observations	261	261	112	112	261
$\beta 1 + \beta 4 = 0$	0.670	0.389	0.515	0.447	0.896
$\beta 2 + \beta 5 = 0$	0.348	0.889	0.178	0.979	0.231
$\beta 1 = \beta 2$	0.098	0.831	0.123	0.013	0.123
$\beta 1 + \beta 4 = \beta 2 + \beta 5$	0.580	0.461	0.417	0.445	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 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Table 35: ATEs on Marriage Outcomes in Phone Survey (10 Months)

	married	received offer	accepted offer	declined offer	any marriage steps
treatment 1	0.144**	0.071	0.288***	-0.284**	0.193***
	(0.063)	(0.109)	(0.108)	(0.119)	(0.074)
treatment 2	0.049	0.262**	0.080	-0.097	0.097
	(0.046)	(0.101)	(0.075)	(0.094)	(0.063)
only wife int.	0.071	0.063	0.121	-0.187	0.111
	(0.057)	(0.117)	(0.101)	(0.125)	(0.072)
treatment 1	-0.210**	-0.134	-0.343**	0.395**	-0.238**
× only wife int.	(0.086)	(0.164)	(0.160)	(0.184)	(0.112)
treatment 2	0.015	-0.167	-0.006	0.094	-0.069
× only wife int.	(0.092)	(0.156)	(0.146)	(0.170)	(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 (β_i corresponds to the coefficient of the term in the ith row). *p < 0.10, ** p < 0.05, *** p < 0.01. Source: 2018 CiMLAS.

Perception of Incidence of Early Marriage (With Controls)

Table 36: Perception of Incidence of Early Marriage

	Early Marriage Common	Early Marriage Not Common
treatment 1	-0.000	0.011
	(0.028)	(0.027)
treatment 2	-0.016	0.020
	(0.028)	(0.027)
Observations	1757	1757
p-value	0.572	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 37: 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**	0.112	0.201***	-0.034	0.079
	(0.033)	(0.074)	(0.074)	(0.132)	(0.049)
treatment==2	0.014	0.055	0.112	0.123	0.036
	(0.026)	(0.074)	(0.075)	(0.133)	(0.045)
Observations	236	236	104	104	236
dep var mean	0.071	0.071	0.071	0.071	0.071
dep var sd	0.259	0.259	0.259	0.259	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 38: 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	0.048	0.156**	-0.101	0.122**
	(0.046)	(0.083)	(0.077)	(0.093)	(0.058)
treatment==2	0.032	0.219***	0.041	-0.010	0.054
	(0.044)	(0.078)	(0.070)	(0.087)	(0.053)
Observations	209	209	128	128	209
dep var mean	0.125	0.125	0.125	0.125	0.125
dep var sd	0.332	0.332	0.332	0.332	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.....1 seek more information about the groom,with the goal of arranging the marriage 2
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 .....1 seek more information about the groom,with the goal of arranging the marriage 2
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 .....1 seek more information about the groom,with the goal of arranging the marriage 2

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 approve	somewhat approve	somewhat disapprove	strongly disapprove	Response 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?	1	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 ..... 1 Request Rokeya's uncles to seek more information about the prospective groom, with the goal of arranging the marriage 2
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 ..... 1 Request Rokeya's uncles to seek more information about the prospective groom, with the goal of arranging the marriage 2
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 ..... 1 Request Rokeya's uncles to seek more information about the prospective groom, with the goal of arranging the marriage 2

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 approve	somewhat approve	somewhat disapprove	strongly disapprove	Response 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?	1	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.....1 Avoid your daughter's marriage till she is older.....2
VC_02	What do you think most other parents would do in your village?		Act quickly to arrange the marriage.....1 Avoid their daughter's marriage till she is older.....2
VC_03	What would most other parents advise Rita's parents to do regarding their daughter's situation?		Act quickly to arrange the marriage.....1 Avoid their daughter's marriage till she is older.....2

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 approve	somewhat approve	somewhat disapprove	strongly disapprove	Response 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?	1	2	3	4	