

Making Change with Cash?

Impact of a Conditional Cash Transfer Program on Age of Marriage in India

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Worldwide, more than 720 million girls alive today were married before the age of 18. South Asia is home to almost half (42%) of all child brides; India alone accounts for one third of the global total. In 2013, 47% of Indian women age 20 to 24 were married before age 18.

Child marriage is a violation of human rights, with severe and adverse implications for girls' well-being and developmental potential. Girls married before age 18 are subject to early or forced sexual relations, face a higher risk of contracting sexually transmitted infections, including HIV, and are more vulnerable to intimate partner violence. Early marriage often leads to early childbearing, which is further associated with poor maternal health outcomes. Beyond the immediate health risks, lower educational attainment leaves girls less equipped for economic advancement.

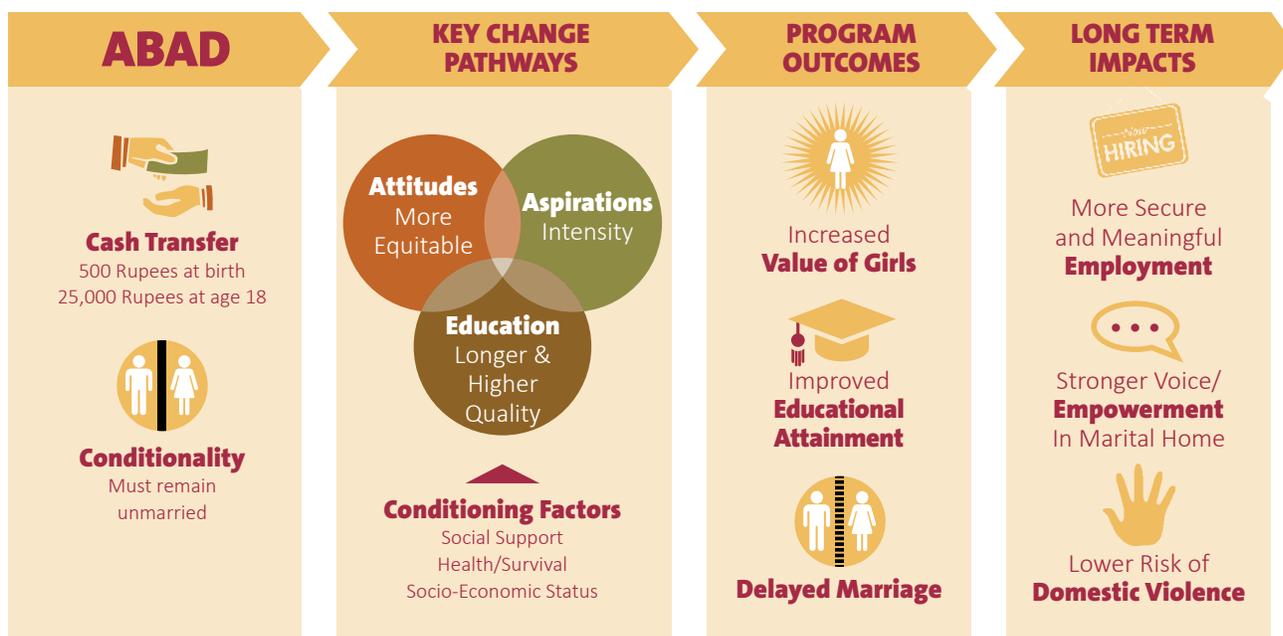
Interventions to address child marriage range from legal reforms, cash incentive, and skill-building programs to working with families and their communities to change

unequal gender norms. Over the last two decades, conditional cash transfers (CCTs) have emerged worldwide as an important tool to address this challenging issue.

CCTs provide cash to people as an incentive to fulfill certain criteria that are determined to have a positive social impact, such as school attendance or use of health services. Only a few CCTs have had the explicit objective of delaying age at marriage for girls. Even fewer have had designs that make them suitable for evaluation, and only a handful have been evaluated for long-term outcomes. Those that have been evaluated have shown mixed results.

The International Center for Research on Women's (ICRW) Impact on Marriage: Program Assessment of Conditional Cash Transfers (IMPACCT) study, which was an evaluation of a CCT program implemented by the Indian government, helps to fill the gap of data on the effectiveness of CCTs as a tool to delay child marriage. We assess not only whether the CCT was effective in delaying age of marriage, but also whether it changed attitudes regarding the value of girls.

Figure 1: Conceptual Framework: IMPACCT Study



THE APNI BETI APNA DHAN CONDITIONAL CASH TRANSFER PROGRAM

The *Apni Beti Apna Dhan* (ABAD), or “Our Daughters, Our Wealth,” program was among the first long-term protracted CCT programs in India that aimed to enhance the value of girls and delay marriage. Implemented by the government of Haryana between 1994 and 1998, ABAD was unique among India’s large-scale CCT interventions because the beneficiaries faced a protracted period before they could receive the cash, which was explicitly conditioned on delaying marriage until at least age 18.

Households belonging to disadvantaged subgroups in the population (Scheduled Castes and Other Backward Castes) or those living below the poverty line were eligible to enroll in the program if they had a daughter born between 1994 and 1998 among their first three children. The program offered two points of transfer: 1) a small cash disbursement to mothers (500 Indian Rupees) within 15 days of delivering an eligible girl; and 2) a savings bond of 2,500 Indian Rupees purchased by the government in the name of the girl on enrollment within three months of her birth. The bond was expected to grow to about 25,000 Indian Rupees (approximately \$384 at today’s rate) redeemable at age 18, provided the girl was not married.

EVALUATION OF THE PROGRAM

In 2012 the first age cohort of girls who had enrolled in ABAD turned 18, which provided a unique opportunity to evaluate the program and to look at its impact on both education and marriage outcomes. ICRW, supported by a grant from the United States Agency for International Development (USAID), undertook an evaluation study between 2010 and 2015.

The evaluation aimed to answer the following questions:

1. Did the ABAD program succeed in delaying marriage of girls?
2. Were girls enrolled in the ABAD program more likely to stay in school and/or complete schooling?
3. Did attitudes and behaviors among parents and girls in ABAD households indicate more value for girls and support for alternatives to marriage?

The stated intention of ABAD was to enhance the “value” of the girl child. The meaning of value was not defined in the program objectives. In our conceptual framework we identified two outcomes — **marital status and educational attainment** — as measures of enhanced value for girls (See Figure 1).

We use marital status as the main outcome because remaining unmarried until age 18 was the only condition for receipt of the benefit. We use educational attainment as the secondary outcome as it can be considered as both a pathway for delaying age of marriage

and a direct measure of value. Girls in Haryana have lower school completion rates than boys, especially at the secondary level. Both these outcomes are directly associated with girls' perceived value in Haryana. From the time they are born, girls are valued differently than boys, and many decisions in their lives including how much they study are associated with their marriageability.

In the conceptual framework for the study, we hypothesized three change pathways through which the CCT would enhance the value and status of girls, thereby enhancing their educational attainment and delaying their marriage:

- Attitudes of parents would become more gender-equal.
- Parents and girls would intensify their aspirations for a better future.
- Girls would stay longer in school and have higher educational attainment.

METHODOLOGY

No baseline information was collected when the program started in 1994. During the first year of the study (2010-11), ICRW gauged the extent of the CCT coverage, collaborated with the Government of Haryana to assess availability of beneficiary records and secured buy-in from key stakeholders. We also conducted a formative study to understand how beneficiaries were identified and enrolled in the program by outreach workers.

Our evaluation was designed as a quasi-experimental mixed-methods study with two time periods, one before and one after the girls turned 18. We compared the beneficiaries, i.e., those who met the eligibility criteria and enrolled in ABAD, to the eligible non-beneficiaries, i.e., those who met the eligibility criteria but did not enroll in the program.

We conducted two rounds of surveys in 2012-13 and 2014-15. While we surveyed girls (and their mothers) belonging to two age cohorts (those born in 1994-1996 and in 1997-1998) in the first round to assess the impact on educational attainment, our follow-up survey tracked only the older age cohort (who were close to or above 18 years of age and thus eligible to encash the benefit on remaining unmarried).

We followed a multi-stage sampling design, conducting surveys in 300 primary sampling units (PSUs, or villages) within four districts in Haryana. We selected four districts randomly from 19 districts (in the 2001 census frame) using probability proportional to size (PPS) sampling. Subsequently 300 PSUs were selected from these four districts, again proportionally to village population size. For both levels of selection, we used the female literacy rate and the proportion of Scheduled Caste (disadvantaged castes in India) as indicators for implicit

Table 1: Sample Size Achieved in Round 1 and Round 2 for Girls and Mothers

	Older Cohort	Younger Cohort	Mothers
Round 1 (2012-13)	5694	4444	9556
Round 2 (2014-15)	5297	-	5241
Final Analysis Sample from Round 2	3944		3944

stratification. In both survey rounds, we asked girls and their mothers detailed questions about their background, education, marriage, work, aspirations, gender-equitable norms, program enrollment, and (for beneficiary girls) their plans for using or their actual use of the cash. Household and village questionnaires in the first round captured additional relevant data.

Table 1 provides the sample size achieved in two rounds of the survey and the final sample that was used for analysis (after necessary exclusions).¹ This brief uses data from the second round of the survey (i.e. 3,944 girls) to examine the program impact.

The impact of the program on marital status (ever married) and age of marriage was analyzed using bivariate probit models with instrumental variables, as our outcome variables were dichotomous (these will be described in the results). We controlled for the fact that households that participated in ABAD may be systematically different from those that did not participate.²

We used an instrument that can predict enrollment in ABAD (satisfying the **relevance** of the instrument) without directly affecting any of the two outcome variables (age of marriage and educational attainment), satisfying the **exclusion restriction**. We used measures of program uptake (i.e. proportion of beneficiaries) in castes other than one's own within the village as our instrument. Program uptake in PSUs (villages) was a good indicator of random variation in the success of the ABAD program enrollment officer (such as the village level outreach worker or the school teacher). Because the program had variable uptake, enrollment of others in the village would have an influence on an individual's enrollment, as information about the program was often disseminated by word of mouth.³ By allowing only enrollment rates for non-caste members and excluding beneficiaries from one's own caste, we achieved a predictor of program uptake for individual households in the village but avoided the social influence on the main outcomes that would come mostly from families in one's own caste. The caste-stratified society of Haryana creates influence barriers between castes, so the instrument satisfied the exclusion restriction. We tested the instrument for predicting program uptake and it was strong and significant.

Our analysis controlled for other factors at the individual, household, or village level that may have affected the outcome variable. We also controlled for district-level variations by using fixed effects in the models. Finally, all the estimates presented here accounted for sample weights (probability of selection of the village and household non-response rates).

We also collected qualitative data in four rounds, conducting 241 in-depth and semi-structured interviews with beneficiary and non-beneficiary girls and their parents, and 57 key informant interviews with government officials and village functionaries.

AGE OF MARRIAGE AND MARITAL STATUS OF GIRLS IN HARYANA

Over the last 20 years, the proportion of women of age 20-24 who married before age 18 in Haryana has declined from around 57% in 1992-93 to 41% in 2005-06, and the pace of decline has been faster than the average of all states across India.

We also learned from our qualitative research that the prevalence of child marriage in Haryana, although declining, is still strongly rooted in the gender roles and expectations around girls and their marriage. Haryana is known for its long and continuing history of adverse sex ratios at birth, testimony to the long-standing practices of high son preference and discrimination against daughters. Sons are valued above daughters because they are expected to carry forward the family lineage and provide economic support to parents in their old age, while daughters are not expected to support their parents after they marry. A parent of a girl therefore believes that she is being groomed only for her marriage, so girls are deemed to be “someone else’s wealth” (*paraya dhan*).⁴

Marriage in Haryana is universal for both boys and girls and is arranged within socially rigid norms and rules around caste – within caste and lineage (*gotra*) and but outside the village, i.e., village exogamy. Age of marriage is influenced by a complex set of intersecting socio-cultural factors around poverty, marriage, education and sexuality norms, as well as by the government’s various developmental initiatives.

Respondents across the study districts attributed the decline in child marriage to a higher rate of schooling and educational attainment among both girls and boys and to the growing importance of education in the society overall. The growing importance of education for marriage was universally noted and is captured here by a mother who stated, “*No one takes an illiterate girl. People say it is difficult to find a match for illiterate or less educated girls. What will one do with an illiterate girl?*” While education has played a role in reducing child marriage, it has not yet pushed the marriage age much beyond 18 years. Education

for girls is considered an attribute that will enhance their marriageability, not necessarily for bolstering their cash-earning employability outside the village.

An educated girl is expected only to better fulfill her role as daughter-in-law and mother. A father from Hissar, echoing larger sentiments of parents, noted, “*...being educated is also important, but if the girl is educated and does not provide food to her parents in-law, then what is the use of such education? ... Let’s say there is a cow and she has great horns, but if she does not provide milk then what is the use of it?*”

A girl’s sexual purity, linked to her marriageability and the family honor, emerged as the most compelling reason for early marriage. Anxieties about this were heightened by a perceived “deterioration in the social environment” that often referred to the increasing presence of unemployed, unmarried men in the villages and to their alleged indulgence in addiction, alcoholism, and sexual violence against girls. Respondents cited inter-caste romantic liaisons, sometimes culminating in elopement, among their most imminent fears.⁵ Amid this anxiety, marriage becomes the priority once a girl reaches puberty, the more so if she appears to have matured physically.

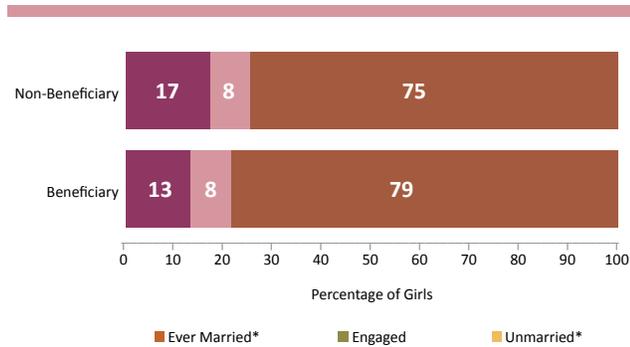
In short, it is good for a girl to be educated as long as it does not hamper her marriage opportunities, which are directly linked to the “appropriate” age of her marriage, her virtue as a “good” girl, the quality of the groom and the associated costs of marriage. According to respondents, once a girl reaches age 16 or 17 the primary focus is on her marriage rather than on her education.

Parents regarded the costs of marriage, including providing dowry, as among the biggest expenditures they incur.⁶ These were often cited as the reason for considering daughters to be a burden. Dowry and marriage costs tend to rise as girls get older, so among the poorest, marriages are brokered as early as possible. Parents with two daughters close in age would often marry them together to boys from the same household to economize on marriage costs. This often meant the younger daughter would marry before age 18.

The Indian government’s effort to create awareness and enforce the Prevention of Child Marriage Act (2006) also seems to have affected people’s decisions on marriage for their children. Parents seemed to know that marrying their girls before the legal age of 18 could invite punitive action. They also said they would wait for the cash benefit because they had enrolled in ABAD. We interviewed parents of several beneficiaries who said they wanted to get their enrolled daughter married between age 15 and 17 but deferred it because they had “the ABAD documents.”

The impact of the program itself on the age of marriage is explored in the next section.

Figure 2: Marital Status of Beneficiary and Non-Beneficiary Girls



*significant at 5%

FINDINGS

No program effect on marriage before the age of 18

Participation in the ABAD program had no effect on the probability of being currently married (irrespective of age at marriage) or on the probability of marriage before age 18 (Table 2).

Overall, a very small proportion of girls were married in our sample (14.9%). Further, a lower proportion of beneficiary girls were married (13.3%) compared to non-beneficiaries (17.1%) (Figure 2). While these figures indicated a positive effect of the program, the possible benefit did not endure when we accounted for self-selection and other factors at the individual, household and village levels.

Using bivariate probit analyses with instrumental variables, we find that the program did not affect the probability of marriage before the age of 18 (Table 2). The absence of a program effect may be attributed to the fact that a vast majority of girls in our study were not married at the time of the second survey, reflecting an overall trend toward later age of marriage in the state of Haryana. This trend can be partly attributed to the growing importance of girls' education that respondents confirmed in our qualitative interviews. There was no effect of the program on girls' marital status either.⁷

Figure 3 also shows that the proportion of girls marrying during their 18th year was higher for beneficiaries (59%) than non-beneficiaries (45%). Intrigued by this we carried out a sub-sample analysis of married girls (n=626). Using Propensity Score Matching (PSM) approach, we find that for the sub-sample of ever married girls, beneficiary girls are slightly more

Table 2: Impact of ABAD Program on Marriage Outcomes

Married ¹ (Takes the value 1 for ever-married girls)	Average Marginal Effects	-
	Coefficient	-0.440
Married before 18 ² (Takes the value 1 for girls married before 18; 0 for girls married at or after 18)	Average Marginal Effects	-
	Coefficient	0.605

After controlling for the girl's age, the mother's schooling, the father's schooling, caste, wealth quintile in 1994, distance to secondary school in 1994, total children, proportion of girl children and district dummies.

Our Bivariate Probit model with instrumental variables controls for selection into the program.

Standard errors are clustered at the village level; *** p<0.01, ** p<0.05, * p<0.1. Estimates account for sampling weights. Average marginal effects are percentage point change calculated from the coefficient of beneficiary impact from the analysis. Average Marginal Effects are not presented for insignificant estimates.

¹Analysis for all girls in the sample ;N=3944

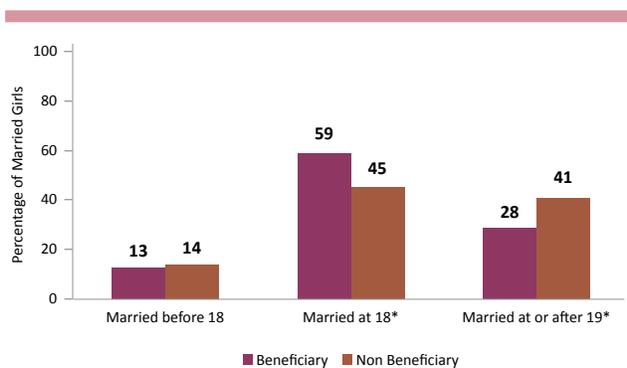
²Analyses for all ever married girls; N=626

likely to marry during their 18th year when compared to non-beneficiary girls. This sub-sample is non-representative as many girls had not yet reached their 19th birthday at the time of the second survey. We present the analysis as it is aligned with the qualitative data that suggests that beneficiary families saw the ABAD CCT as a way to cover marriage and dowry expenses. Additional data show that more than half the families tended to or actually spent the cash transfer amount on meeting marriage expenses.

This result indicates that the cash benefit had an instrumental effect. In other words, it suggests that parents of beneficiary girls waited to get their daughters married only until receipt of the benefit. This is further corroborated by the data on cash use, which suggests that participants both intended and actually used the cash incentive for marriage purposes. More than 50% of respondents who had cashed out reported using the funds for marriage expenses (data not shown).

The instrumental effect of the program is explained by additional qualitative data. We learned that some parents may have enrolled because they considered that the benefit could help defray the cost of their daughter's marriage. Some even thought mistakenly that this was the purpose of the benefit. One mother from Bhiwani said, "The government is giving Rs. 25,000 so that they [a family] can get items for her [daughter's] marriage." This strong association was reflected in the way

Figure 3: Age at Marriage Across Beneficiary and Non-Beneficiary Married Girls



*significant at 5%

many parents referred to the program as a *kanyadan* program.⁸ *Kanyadan* is the core Hindu marriage ritual that symbolizes a father's gifting of the daughter to the man she marries, along with an accompanying set of material gifts, the dowry. The practice of dowry and material transactions at the time of a girl's marriage is often the reason that she is considered an economic burden.

Education and educational aspirations emerge as key mechanisms

The mechanisms of change are often as important as the magnitude

of the program impact, especially for those designing similar interventions. Along with our conceptual framework, we lay out the different mechanisms through which ABAD could have had an impact on the probability of marriage for girls in Haryana. Both girls' schooling (completion of the 8th grade) and girls' aspirations to study beyond the 12th grade emerged as mechanisms of change. Beneficiary girls had a higher probability of completing 8th grade by 12 percentage points and of aspiring to study beyond 12th grade by 19 percentage points (Table 3). These results suggest that schooling until 8th and girls' own aspirations to study at higher levels may have had a strong influence on their delayed marriage beyond 18. However, these mechanisms are not strong enough to show a program effect on girls' marital status because of the instrumental effect of the cash benefit that motivates beneficiary parents to marry off their daughters at 18 years on receipt of the benefit. Interestingly, mothers' aspirations and girls' and mothers' attitudes toward gender equality⁹ did *not* emerge as strong mechanisms for change towards delaying marriage. Our speculation is that if all these pathways were positive and significant, they may have worked together to confront the opposing effect of the universality of marriage and the instrumental effect of the cash benefit.

Table 3: Impact of Program on Mechanisms of Change

	Average Marginal Effects	Coefficients
Girl's Aspirations (Takes the value 1 for aspiring to study beyond 12th grade, 0 otherwise)	0.194**	0.573**
Mother's Aspirations (Takes the value 1 for aspiring to study beyond 12th grade, 0 otherwise)	-	-0.290
Currently Studying (Takes the value 1 if the girl is currently in school or college or professional course; 0 otherwise)	-	0.326
Completed 8th grade (Takes the value 1 for girls who have completed 8th grade; 0 otherwise)	0.118**	0.734**
Completed 10th grade (Takes the value 1 for girls who have completed 10th grade; 0 otherwise)	-	0.140
Completed 12th grade (Takes the value 1 for girls who have completed 12th grade; 0 otherwise)	-	0.473
High GEMS (Gender Equitable Attitudes)(Takes the value 1 who have a GEMS score in the highest quintile; 0 otherwise)	-	-1.564

After controlling for the girl's age, the mother's schooling, the father's schooling, caste, wealth quintile in 1994, distance to secondary school in 1994, total children, proportion of girl children, and district dummies.

Our Bivariate Probit model with instrumental variables controls for selection into the program.

Standard errors are clustered at the village level; *** p<0.01, ** p<0.05, * p<0.1

Estimates account for sampling weights.

Average marginal effects are percentage point change calculated from the coefficient of beneficiary impact from the analysis. Average Marginal Effects are not presented for insignificant estimates.

Analysis for all girls in the sample; N=3944.

CONCLUSION

Evaluations of conditional cash transfers have shown varied results across programs and countries. A vast majority of these have been programs that encouraged girls' schooling and have been evaluated for long-term impacts on marriage (such as the Female Secondary Schooling Program in Bangladesh and Punjab, Pakistan). They show promising but mixed impact on marriage. Our results from evaluating one of the first long-term CCT program with a sole conditionality of "remaining unmarried" show no impact of the program on girls' ever married status or on marrying before age 18.

In an interesting finding with a small sub-sample of ever married girls, we find that beneficiary girls may be slightly more likely to marry in their 18th year than non-beneficiary girls. While the sub-sample is non-representative, along with the qualitative data, this result suggests amongst those already married, beneficiary families may have waited to receive the benefit and then marry off their daughters during their 18th year.

The findings suggest that ABAD CCT enabled beneficiary households to delay age of marriage of their daughters to 18, but did not profoundly shift their attitudes about delaying age of marriage. While many policy interventions have focused on inducing people to meet the legal age of 18 for marriage, it is unclear what, if anything, such a delay means for girls' well-being and empowerment over the long term. This is especially relevant in Haryana where there is a lacunae of alternative opportunities for girls' employability or higher education after they turn 18.

We know from our qualitative data that in Haryana marriage is prioritized over other aspects of a girl's future, such as higher education or employability. Girls married at 18 or any age are still unable to plan their futures on their own. They know that these decisions are made for them, often by their marital families. Girls with high aspirations for their future education or a career may be able to negotiate some of these spaces prior to marriage, but such girls are very much the exception to the rule.

The impact on education that we analyzed shows that ABAD had a significant impact on girls' remaining in school to the 8th grade level, but this does not endure to higher levels of education (these findings are forthcoming in a separate publication from this study). In evaluating the impact on marriage, we found that girls' aspirations and their educational attainment were important and significant mechanisms of change, but they were not strong enough to push the age of marriage beyond 18. The larger context is that families primarily see girls' education as valuable for enhancing their marriageability, rather than as a pathway to new opportunities. Hence, increased education to 8th grade had little transformative effect in the absence of socially acceptable alternatives to marriage.

The lack of any effective communication and advocacy to participants about the core goal of the CCT (to enhance the value of girls) also suggests that people continued to interpret the program and its benefits within their own cultural framework. This study tells us that while CCTs have the potential for bringing about certain desirable behavioral changes among the economically most vulnerable population, they alone are not sufficient for the changes to be transformative for girls. Along with conditional cash transfers, there is a need for other layered approaches that challenge norms and help change parental attitudes and aspirations for girls.

In a context of broader shifts in the age of marriage, CCTs to delay marriage need to incentivize completion of higher education beyond 8th grade. They should also work alongside complementary efforts to change gender norms and build the capacities of girls to enable them to plan for their lives beyond age 18 and outside of marriage. Crucial to this process will be providing opportunities and infrastructure that help girls to become economically active agents.

Notes

¹ Girls whose mothers were not available for the second round of survey have been excluded from the analysis. We also had to exclude non-beneficiary girls who did not meet the rank condition of being among the first three children in their family.

² While stringent conditions were set for eligibility to enroll in the program, there is a strong possibility that families may have self-selected into it. We cannot accurately measure program effects without addressing this self-selection.

³ We conducted two rounds of qualitative data collection to study in depth the implementation of the program and understand factors that affected enrollment in the program including self-selection.

⁴ Over the years, these norms and assumptions have led to a skewed sex ratio and to seeking of brides from economically poorer regions.

⁵ Such liaisons may invite family excommunication at the least, and at most they can lead to brutal punishment, even death.

⁶ The articles given in dowry included gold jewellery from the girl's family to the groom and his family. Other common dowry items included household furniture, electronic items and utensils, as well as vehicles and cash deposits in the name of the groom.

⁷ Although there is no program effect on girls' marital status for the full state wide sample, we found that the impact of the program varied across districts in a sub group analysis. We found close to a 27 percent point reduction in the probability of being married in the districts of Bhiwani and Sirsa but no effect in the other two districts. There may be varying reasons for the heterogeneity of program effect across districts that include differential rates of program uptake, other developmental changes over time in these districts as well as differential motivation to participate in the program

⁸ Several state governments in India have programs that incentivize parents to delay the age of girls' marriage to age 18. They provide a sum of money to marginalized communities specifically for marriage at the legally permissible age. Our research found that in the years of the ABAD program, the Haryana

government was also operating such a program, popularly referred to as the kanyadan scheme. Respondents often assumed the objective of the two programs to be the same and referred to them interchangeably.

⁹ The Gender Equitable Measurement Scale (GEMS) was constructed by combining 28 attitudinal statements into a score. This score was further categorized into quintiles. High GEMS is a categorical variable that takes the value 1 for GEMS score belonging to the highest quintile and 0 otherwise.

References

- UNICEF. 2014. Ending Child Marriage: Progress and Prospects. UNICEF, New York
- National Family Health Surveys, Various Years. <http://rchiips.org/nfhs/pdf/Haryana.pdf>
- Bott, S. and S. Jejeebhoy. 2003. Non-consensual Sexual Experiences of Young People: A Review of the Regional Working Paper Series, Population Council, New Delhi
- Mathur, S., M. Greene, and A. Malhotra, 2003. Too Young to Wed: The Lives, Rights, and Health of Young Married Girls. ICRW, Washington, D.C.
- Pathfinder International. 2011. PRAGYA- Multisectoral, Gendered Approach to Improve Family Planning and Sexual Reproductive Health for Young People: A Research Study. Pathfinder International, Watertown, MA.
- Jain, S. and K. Kurtz. 2007. New Insights on Preventing Child Marriage: A Global Analysis of Factors and Programs. ICRW, Washington, D.C.
- UNICEF. 2001. Early Marriage: Child Spouses. Florence: Innocenti Research Centre
- WHO. 1999. World Health Report: Making a Difference. WHO, Geneva.
- Malhotra, A., A. Warner, A. McGonagle and S. Lee-Rife. 2011. Solutions to End Child marriage: What the Evidence Shows. ICRW, Washington, D.C.
- National Family Health Surveys, Various Years. <http://rchiips.org/nfhs/pdf/Haryana.pdf>
- Ahlatwari, N. 2009. Missing brides in rural Haryana: A study of adverse sex ratio, poverty and addiction. *Social Change* 2009 39: 46
- Chowdhry, P. 1994. The Veiled Women Shifting Gender Equations in Rural Haryana. Oxford University Press, New Delhi
- Kaur, R. 2007. Declining Juvenile Sex Ratios: Economy, Society and Technology, Explanations from Field Experience. *The Journal of Applied Economic Research*. 1(2):231-245.
- Chowdhry, P. (Dec. 3-9, 2005), Crisis of Masculinity in Haryana: The Unmarried, the Unemployed and the Aged, in *Economic and Political Weekly*, Vol. 40, No. 49 pp. 5189-5198
- Alam, A., Baez, J. and X. Del Carpio. 2011. Does Cash for School Influence Young Women's Behavior in the Longer Term? Evidence from Pakistan. Discussion Paper Series. IZA
- Hahn, Y., Islam, A., Nuzhat, K., Smyth, R. and H.S. Yang. 2015. Education, Marriage and Fertility: Long-Term Evidence from a Female Stipend Program in Bangladesh. Working Paper. Monash University.
- Khandker, S. and M. Pitt. 2003. Subsidy to Promote Girls' Secondary Education: The Female Stipend Program in Bangladesh. MPRA Paper No. 23688

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