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Looking at Conditional Cash Transfers as Solutions to Enhancing Girls Education: An Analysis from Evaluation Survey in North India

Introduction:

Child marriage, or marriage under the age of 18,[1] is a global phenomenon that affects nearly 67 million girls worldwide (UNFPA 2012). With the prevalence of 47% of child marriages, India has the largest number of girls marrying before the age of 18 years in the world (UNFPA 2012). Child marriage not only violates girls' human rights, but also adversely impacts their development. Girls who marry early are more likely to be socially isolated, have early and high-risk pregnancies, be at risk of sexually transmitted infections, and be more vulnerable to intimate partner violence (Bott and Jejeebhoy 2003; Mathur et al 2003; UNICEF 2001, 2009, 2011; Jain and Kurtz 2007; Malhotra et al 2011). Child marriage also stifles girls' educational attainment and makes them less equipped to benefit from employment or economic advancement (Nanda et. al. 2012).

In India, in addition to having a law[2] and many large civil society programs to delay early marriage, the government over the past fifteen years has initiated multiple national and state sponsored conditional cash transfer[3,4] (CCT) programs with the direct or indirect aim of delaying marriage among girls (Sekher 2010).

The first such program was called Apni Beti Apna Dhan (ABAD), or "Our Daughter, Our Wealth." Developed by the Government of Haryana in 1994, the scheme aspired to enhance the value of girls. ABAD, which operated between 1994 to 1998, is one of the first CCTs targeting girls, implemented systematically by an Indian state. To our knowledge ABAD is also unique among all large-scale CCT interventions in India, in that beneficiaries faced a protracted 18-year period before receiving any cash transfer, as the conditionality was explicitly based on delayed marriage. The scheme targeted poor households and disadvantaged caste groups, offering two points of transfer: 1) a small cash disbursement to mothers (500 Indian Rupees) within 15 days of delivering a eligible girl; and 2) within three months of birth, and on enrollment, the government purchased a savings bond of Rs.2500 in the name of the daughter which was redeemable at a maturity of 25,000 Indian Rupees at age 18, provided the girl was not married.

The initial cohort of beneficiaries turned 18 in 2012-2013, marking the first opportunity to determine whether the cash incentive has been a sufficient motivator for delayed marriage. A sound evaluation of the ABAD program's long-term benefit and its impact on the timing of marriage is a first-of-its-kind evaluation, offering key insights and lessons not only for the Indian government and policymakers, but many others across the world.

The International Center for Research on Women (ICRW) designed a rigorous evaluation of the ABAD program and collected data from beneficiaries and comparable non-beneficiaries in 2012, just prior to them turning 18. A second round of data will be collected in 2014, after the older girls have reached 18, to measure the effect on delayed marriage as well as to understand the cashing out process and how the benefit has been used. This research brief describes the findings from the first survey implemented in 2012-2013. The main outcome of interest is the educational attainment of beneficiary girls versus comparable non-beneficiary girls. The next survey will be conducted in 2014,

which will present the impact data on delayed age of marriage in a more comprehensive way.

Evaluation Questions:

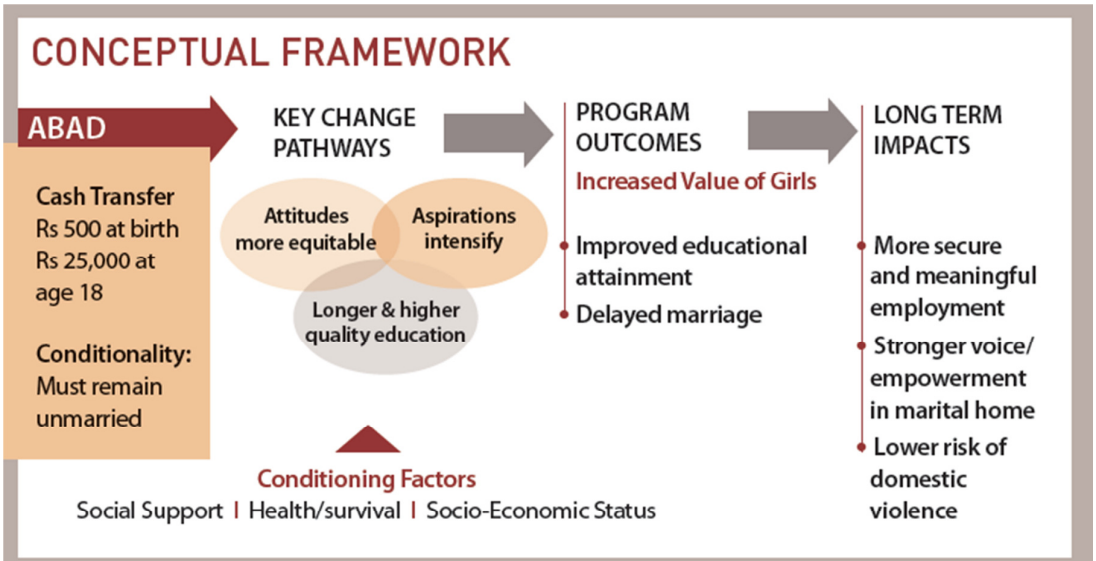
ICRW's impact evaluation of the ABAD scheme aimed to answer the following questions:
• Does the ABAD program succeed in delaying age at marriage?
• Are girls enrolled in the ABAD program more likely to stay in school beyond middle school?
• Are attitudes and behaviors among parents and girls in ABAD households indicative of more value on and support for alternatives to marriage?

We hypothesized the following pathways through which changes in these value domains occur:
1. Attitudes of parents become more gender equal due to the observation that their government was willing to invest financially in the future development of girls.
2. Parents and girls who chose to pursue the terms required to receive payment would have intensified aspirations for a better future.
3. While waiting to receive benefits and remain unmarried, girls will stay longer in schools and thus have higher educational attainment.

Target Group for ABAD program:
• Poor households
• Disadvantaged caste groups
• Up to 3rd birth rank girls born between 1994-1998

We measured three main outcomes of the scheme:
• Enhanced educational attainment
• Delayed marriage
• Enhanced value
(measured through more qualitative indicators of self-confidence and higher aspirations)

The protracted incentive in ABAD program may have given parents the economic and social motivation they need to keep girls in school for longer than they would otherwise. In this study we hypothesize schooling as a clear pathway to delayed age of marriage.



The objective underlying the development of the ABAD program was to enhance the value for girls both through incentivizing their birth, given the context of adverse sex ratios at birth, and to improve the status of girls in the household. Delaying marriage to 18 years of age was both a condition of the ABAD program and an indicator of improved value. In our framework the hypothesized linkages between the scheme's intention and the protracted benefits are articulated in terms of how the value and status of girls would improve with enrollment. The outcomes for improved value that we measure are educational attainment and delayed marriage to 18 years. The pathways through which these value shifts may occur are clustered in three domains: gender equal attitudes of parents towards girls; intensified aspirations for their future, and a more direct route of transformation which is through longer and higher quality of education/schooling for girls which would inevitably delay marriage.

Evaluation Design and Sampling

The study was designed as a quasi-experimental evaluation design with two rounds of surveys of beneficiaries and a comparable group of eligible non-beneficiary girls and their mothers. The first round, completed in 2013, focused on beneficiaries and non-beneficiaries born during 1994-1998. The second round will be carried out in 2014, which will follow up only those beneficiaries and non-beneficiaries born during 1994-1996 and interviewed during the first round. In 2014, the entire 1994-1996 cohort of girls will have turned 18, and the beneficiaries will also get an opportunity to cash out the scheme benefits if they have remained unmarried, allowing for a rigorous assessment of ABAD's impact on delayed marriage.

Data was collected from the younger cohort of girls as well – those born between 1997-1998 – because they are more distant from the cash benefits than the older cohort and less likely to be influenced by the expectations of the benefit. For the study, 300 primary sampling units (PSUs) were selected across four districts through a multi-stage sampling design. Data was collected from 9,466 households comprising both beneficiary (4,267) and non-beneficiary (5,199) households from the villages in the rural areas of four selected districts in Haryana. The beneficiaries and non-beneficiaries sample are fairly similar in terms of their status except a higher proportion of beneficiaries (60%) belong to the most vulnerable social group, scheduled castes, compared to the non-beneficiaries (46%).

Appropriate sampling weights were used prior to the bivariate and multivariate analysis. Chi-square test was used to test the statistical significance of association. The qualitative research focused on assessing the ABAD implementation process and understanding shifts in norms and the value of girls in the context of Haryana (120 IDIs with girls and parents; 18 KIIs; and 9 FGDs).

Context for girls' education

In this section we use findings from our qualitative research to describe the context of education of girls in Haryana. Secondary school is a marker not just for education of girls but also values and priorities that are placed on girls and the investments in their future. There has been a considerable enhancement in girls' education in the last couple of decades in Haryana, where more than two-thirds of girls (15-17 years) are currently in secondary schools (our survey data) compared to 2005 when the proportion was less than fifty percent (NFHS 3). The increased retention in schooling is attributed to the rapid expansion of government schools and financial incentive programs for girls that have taken place over the years (from our qualitative data). These encouraging trends are similar for both beneficiary and non-beneficiary girls. At the same time, the role of education in girls' lives and its potential to enhance their employability or economic agency seems to be limited by prevailing gender roles and expectations. Education is valued differently for boys and girls, irrespective of the beneficiary status. Education for boys is perceived as essential to enhance their future economic prospects, while girls' education is predominantly linked with enhancing their attributes for marriage.

Parents are reluctant to send their daughters outside the village for higher education for fear of girls' safety. The cost of educating girls includes the social cost of protecting them from sexual transgression. Anxieties pertaining to girls' chastity are heightened by the perception that the social environment has deteriorated over the last 15 to 20 years. A particular phrase, mahaul kharab hai ("the social environment is bad"), was used by respondents across all classes, castes and beneficiary status to describe their concerns for young girls. The "social environment" includes ideas of sexual violence against girls, peculiarities of caste-based oppression, high levels of unemployment amongst young men, dominance of young men in common spaces and recent incidents of elopements by young boys and girls. In order to pursue schooling outside of village, girls must regulate their behaviour to assure their families that they would not even invite an insinuation of misconduct.

Access to school for girls

Whether or not girls in Haryana go to a secondary school for higher education depends on the availability of and access to education facilities. There have been improvements in both the availability of schools and the access to transport and roads in the last 18 years in Haryana. Our village level data shows that the proportion of co-educational secondary schools increased from 68% (1994) to 84% (2012), and girls' secondary schools increased from 27% (1994) to 38% (2012) in the study villages at distances less than 3 kilometers. Yet, a majority of girls' higher secondary schools (more than 70%) are at a distance greater than 3 kilometers from the villages and may have influenced the uptake of secondary education for girls (irrespective of beneficiary status).

ABAD'S impact on girl's education

This first round of our evaluation of ABAD aimed to assess whether the beneficiary status of girls in the program affected their educational attainment. We found their status to have a positive effect: A larger proportion of girls who were part of the program (beneficiaries) remained in school than those who were not (non-beneficiaries). Table 1 shows that this was true for girls in the older cohort (76% beneficiary vs. 63% non-beneficiary) and younger cohorts (91% beneficiary vs. 87% non-beneficiary).

Table 1: Current schooling status of girls

	Older cohort		Younger cohort	
	Ben	**Non-ben**	**Ben**	**Non-ben**
Currently in school	76.0	63.6	91.5	87.0
Dropped out from school	22.7	33.4	8.1	11.4
Never in school	1.3	3.0	0.4	1.6
Total	**100.0**	**100.0**	**100.0**	**100.0**
N	**2622**	**3072**	**1878**	**2566**
	p<0.01		**p<0.01**	

We looked at the relationship between beneficiary status and highest level of schooling achieved when girls dropped out. For the older cohort of girls, a higher proportion of beneficiary girls (53%) dropped out after completing higher grades in school compared with non-beneficiary girls (49%). Similarly, a higher proportion of non-beneficiary girls dropped out earlier, during primary school, compared with beneficiary girls (27% for non-beneficiary vs 19% for beneficiary). These trends were found to be similar for the younger cohort as well. These differences were statistically significant ($p<0.01$) both for older and younger cohorts (Table not shown).

Parental Aspirations and Girls' Own Aspirations for Education

Parental aspirations and investments in a girl's education are constrained by the notion that girls are "another person's wealth" (paraya dhan), or the wealth of their marital home. The belief that a girl's earnings will only benefit her marital family significantly discourages parents from investing in their daughter's education beyond a certain level. Our findings suggest that mothers' aspirations influence the aspirations of their daughters. Table 2 & 3 illustrate that among beneficiaries and non-beneficiaries, girls' aspirations for higher education were significantly higher if mothers' also had higher aspirations and the reverse was true as well.

Table 2: Beneficiary girl's aspiration				
	Beneficiary Girl's Aspiration			
Beneficiary Parent's Aspiration	Up to intermediate (ben girls)	Higher (ben girls)	Total %	N
Upto intermediate (parents)	32.2	12.7	44.9	1540
Higher (parents)	9.5	45.7	55.1	2005
Total %	**41.6**	**58.4**	**100**	
N	**1496**	**2049**		**3545**
p<0.001				

Table 3: Non-beneficiary girl's aspiration				
	Non-Beneficiary Girl's Aspiration			
Non-Beneficiary Parent's Aspiration	Up to intermediate	Higher	Total %	N
Upto intermediate	31.6	12.2	43.8	1766
Higher	11.5	44.7	56.2	2240
Total %	**43.1**	**56.9**	**100**	
N	**1764**	**2242**		**4006**
p<0.001				

Gender Differentials in Priorities for Education

Other indicators of investments in girls' education include the amount of time they get to study at home, their tuition support (outside of school fees) as well as the type of schools their comparable age male siblings go to. The time that a girl gets to study at home can also be seen as an investment as this may be time that she would typically help her family in household chores or farm labor.

Private schooling is clearly a marker of household investment in education, as the cost of private education is much higher than that of government schools. Irrespective of beneficiary status, a higher proportion of male siblings (born within 4-6 years of the girls) go to private schools than government schools in the study districts (Table 4).

Table 4: Type of school of girl respondent and male sibling (among currently in school*)						
Type of school	Girl in school			Male sibling in school		
	Ben	Non-ben	Total	Ben	Non-ben	Total
Private	16.5	17.8	17.1	27.5	29.7	28.7
Government	83.5	82.1	82.8	72.5	70.2	71.3
Total	100.0	100.0	100.0	100.0	100.0	**100.0**
N	2214	2522	4736	2168	2497	**4665**
	p>0.05			p>0.05		
Note: *restricted for girls having male sibling in household						

Table 5a and Table 5b compare the type of schooling between a girl and her male siblings separately for beneficiaries and non-beneficiaries. Beneficiary girls are less than three times more likely to be in government schools (17%) compared to their male siblings (5%) while non-beneficiary girls are four times more likely to be in government schools (16%) relative to their brothers (4%). These differences are statistically significant.

Table 5a: Percentage of girls and male sibling by type of schooling for beneficiaries

N=1915	Beneficiary – male sibling	
Beneficiary girl	**Private**	**Government**
Private	13	5
Government	17	65
p<0.05		

Table 5b: Percentage of girls and male sibling by type of schooling for non-beneficiaries

N=2039	Non-Beneficiary – male sibling	
Non-beneficiary girl	**Private**	**Government**
Private	16	4
Government	16	64
p<0.05		

In terms of time for studies at home, we find a higher proportion of non-beneficiary girls in both the older and younger cohort reported that they "never" receive the same amount of study time as their male siblings (older cohort-21% non-beneficiary vs 15% beneficiary; younger cohort-19% non-beneficiary vs 13% beneficiary). An analysis of how much time girls are allowed to study at home is revealing.

Table 6: Time to get study at home

Number of hours	**Older cohort**		**Younger cohort**	
	Beneficiary	**Non-beneficiary**	**Beneficiary**	**Non-beneficiary**
None	1.3	0.4	1.1	0.9
Less than an hour	2.2	2.5	3.0	4.5
1-2 hours	67.5	70.3	70.3	74.4
3 or more hour	29.0	26.8	25.6	20.2
Total	**100.0**	**100.0**	**100.0**	**100.0**
N	**2034**	**1977**	**1746**	**2203**
	p>0.05		**p<0.01**	

The data (Table 6) shows that across the age cohorts and beneficiary status, only about 20 to 30 percent girls reported getting three or more hours of time to study at home. Within that, a higher proportion of beneficiary girls reported receiving three or more hours to study in comparison to non-beneficiary girls in both age cohorts. The findings are significant for the younger cohort.

Self-Efficacy - Education

Self-efficacy is the confidence in one's own capacity to undertake tasks. For girls it can be a factor that influences their educational outcomes and higher aspirations. Self-efficacy is particularly important in the context of girls in rural Haryana due to the many social and gender norms that condition their ability to fulfill their own aspirations. In our survey we computed a specific self-efficacy index for education.

Table 7: Self-efficacy for education among girls in school				
Self-efficacy index for education	**Older cohort**		**Younger cohort**	
	Beneficiary	**Non-beneficiary**	**Beneficiary**	**Non-beneficiary**
Low	43.1	38.4	41.0	43.2
Medium	26.6	30.8	29.7	26.2
High	30.03	30.8	29.2	30.6
Total	**100.0**	**100.0**	**100.0**	**100.0**
N	**1187**	**1123**	**998**	**1042**
	p>0.05		**p>0.05**	

We expected that the larger proportion of beneficiary girls would have higher self-efficacy levels as compared to non-beneficiary girls. However, we found that there was no significant difference in the proportion of girls with high self-efficacy between beneficiary and non-beneficiary groups in both older and younger cohorts. In addition, about 40% girls across both groups had low levels of self-efficacy (Table 7). The findings from self-efficacy underscore that while some trends for schooling and educational attainment are clear and positive, factors related to gender roles and expectations may obscure these effects.

Impact of ABAD on Education-Multivariate Analysis

The overall effect of the ABAD CCT on schooling for girls was assessed controlling for some of the factors outlined above. The multivariate regression analysis model used a two-stage instrumental variable approach (bivariate probit) to estimate the effect of beneficiary status on the outcomes of schooling (Table 8).

After controlling for other variables (see Table 8) and selection, the beneficiary status of girl positively and significantly influences the probability of her being currently in school. The effect of ABAD on girls' education status (whether a girl is currently in school) is positive and strongly significant, suggesting a positive effect of the program on one of the key study outcomes. Additionally, girl's own self-efficacy (measured as an index) has a positive and significant effect on her schooling. Similarly other indicators of agency, knowledge of rights and gender equitable attitudes, also have a positive effect on girls' schooling. The availability of schools in the village, however, has no significant effect on her schooling, after controlling for other factors. Wealth quintile (measured as asset ownership) does have a positive and significant effect on the outcome. The marginal effects were calculated from the multivariate model with instruments to control for selective program uptake. Results showed that being an ABAD beneficiary increases the probability of being in school after age 15 by 23%.

Conclusions:

The girls who were beneficiaries attained higher levels of schooling, were more likely to continue their education and less likely to drop out than non-beneficiary girls, controlling for all other factors. While over the duration of this CCT, families had not availed the cash benefit, the knowledge of the protracted benefit clearly influenced their decision to invest in their daughters' education. This is evident not only from the

results on schooling but also some of the supplementary findings on the time girls get to study at home and the investment in sending them to a private school.

However, education for girls is fraught with contradictions. Prevailing gender roles and expectations, particularly those that prioritize girls' roles as future wives above all, limit the impact of education on girls' empowerment, suggesting that other interventions are needed to help girls fulfill their potential. Conditional cash transfer programs with immediate or protracted benefits need to also interact with the attitude and aspiration space. Financial incentives cannot trigger effective change without shifting underlying values or aspirations.

These findings suggest that a CCT program designed to delay the age of marriage can improve educational outcomes for girls. However, we do not yet know whether the ABAD CCT has delayed girls' age of marriage. Our next round of survey results will reveal what impact ABAD had on age of marriage in a more comprehensive way, and will provide a more complete picture of the pathways between incentives, education, marriage and the overall value of girls.

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Endnotes

[1] This definition of child marriage is based on UN Convention on Rights of Child, 2000
[2] Child Marriage Prohibition Act 2006
[3] First implemented in Latin America in the 1990s, CCTs are a growing phenomenon across the developing world, attracting much policy, donor, and public attention as a potential large-scale solution to poverty and related problems in low and middle income
countries.
[4] Programs to delay the age of marriage have less frequently intervened in the area of enhancing formal schooling in the past although this is now an emerging area of intervention.

Table 10: Results from Instrumental Variable Bivariate Probit Regression for Current Schooling			
VARIABLES	**Currently in school**		
	Un-weighted	**Weighted**	**Weighted & birth rank restricted**
Girl Age	- 0.381**	- 0.368**	- 0.398**
Wealth Quintile Second (Ref-Lowest)	0.024	0.020	0.055
Wealth Quintile Middle	0.162**	0.121*	0.178*
Wealth Quintile Fourth	0.200**	0.153*	0.158*
Wealth Quintile Highest	0.361**	0.354**	0.359**
Self-Efficacy Score	0.083**	0.078**	0.079**
Rights Knowledge	0.072**	0.054**	0.057**
GEMS Score	0.028**	0.027**	0.027**
Beneficiary Status (Ref-Non-beneficiary)	0.848**	0.875**	0.571*
Observations	9230	9230	7261
After controlling for the following variables: Caste, Proportion of mother attended school, Mother attended school, Age at marriage of mother, Mother attended school X beneficiary interaction, Mean number of beneficiaries in village, secondary school - coeducational in village, secondary school - girls only in village, higher secondary school - coeducational in village, higher secondary school - girls only in village			
** p<0.001, * p<0.05			