

# Edutainment and the Prevention of Under-Age Marriages: The Evaluation of a Television Series Designed to Promote Positive Role Models in Bangladesh

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# Introduction

- **Context:**

- Bangladesh ranks 4th globally for child marriage prevalence (UNICEF, 2020).
- 51.4% of girls marry before 18 years of age (MICS 2019).
- Despite socio-economic progress, child marriage remains prevalent in Bangladesh due to deep-rooted social norms (Kamal et al. 2015).

- **Potential Solution:**

- **Social Learning Theory:** People learn behaviors by observing their social environment and media (Bandura, 1971).
- **Edutainment:** Embeds educational messages in entertaining audio or video content to influence behavior (Singhal et al., 1993).
- **Focus of this Study:** Evaluate a Bangladeshi TV series addressing child marriage.

# The Intervention

- **Edutainment Program:**

- A 26-episode TV series.
- Focused on child marriage and adolescent issues.
- Weekly broadcast on four national TV channels (2018–2019).
- Time slots: 7:00 PM–11:00 PM

- **Narrative:**

- A female adolescent protagonist fights against child marriage when her school football team faces dropouts.
- Using sports as her platform, she challenges gender stereotypes and combats social norms.
- The storyline also explores topics such as gender, health, and education.

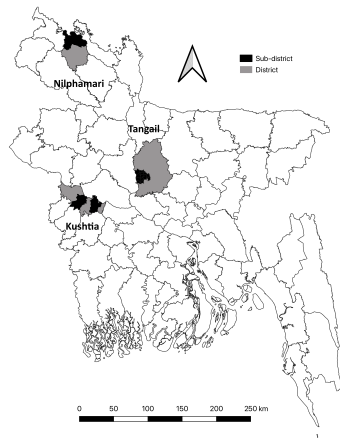
# Study Sites

## Areas with High Child Marriage Prevalence (MICS 2019):

- Nilphamari - Dimla and Domar
- Kushtia - Mirpur and Kumarkhali
- Tangail - Sadar Upazila

## Highlights:

- Black areas: Sub-districts.
- Grey areas: Districts.



# Study Population and Sampling

- **Target Population:**

- Adolescents (10–19 years) and their parents.
- Access to TV and phone.

- **Sampling:**

- Multistage sampling technique.
- 1096 of 1162 baseline households successfully followed up at endline.
- Balanced panel of 971 fathers, 1055 mothers, 939 adolescent boys and 918 adolescent girls.

## Study Timeline

**Baseline Survey**

August 2017

**Intervention**

September 2018–March 2019

**Endline Survey**

October 2019



# Research Design

- **Purpose:** To evaluate the impact of a 26-episode edutainment series on attitudes towards child marriage prevention.
- **Methodology:** Pre-Post Single Arm Design
- **Challenges:**
  - **Selection Bias:** Exposure could be linked to preexisting traits associated with attitude towards child marriage.
  - **Non-Adherence:** Ensuring adequate exposure to the series in a competitive media environment.
  - **Social Desirability Bias:** Child marriage is legally prohibited and a sensitive topic, respondents often do not reveal their true attitudes.



## Research Design (cont'd)

- **Randomized Encouragement as IV:**
  - **T1:** Weekly SMS reminders.
  - **T2:** Weekly SMS + Phone call reminders.
  - **Control:** No reminders.
- **Revealed Attitudes using Dictator Games:**
  - Households earned a BDT 100 endowment through a quiz, fostering ownership.
  - They had a full discretion to keep the money or donate any portion to child marriage prevention and/or environmental restoration.
- Social desirability was also assessed using a standardized tool.

# Outcome Variables

- **Viewership:**
  - **Individual level:** No. of episodes watched.
  - **Household level:** Max No. of episodes watched by any respondent from the household.
- **Self-reported Attitudes toward Child Marriage:**
  - A Composite Index from 33 survey questions.
  - Measures legal knowledge, attitudes toward child marriage (via progressive/regressive statements), and perceptions of social norms (including expectations, rewards, and sanctions).
- **Revealed Attitudes:**
  - Charitable donation to help prevent child marriage.

## Empirical Strategy: Impact of Reminders on Viewership

$$Z_{ijk1} = \beta_0 + \beta_1 T1_{ijk0} + \beta_2 T2_{ijk0} + \beta_x X_{ijk0} + \delta_k + \epsilon_{ijk1}$$

- $Z_{ijk1}$ : Number of episodes watched by individual  $i$  in village  $j$  in district  $k$  at endline.
- $T1_{ijk0}$ : Binary variable for SMS-only reminders (1 = received, 0 = not received).
- $T2_{ijk0}$ : Binary variable for SMS + phone call reminders.
- $X_{ijk0}$ : Vector of baseline individual and household controls.
- $\delta_k$ : District fixed effects.

## Empirical Strategy: Impact of Viewership on Attitudes

$$Y_{ijk1} = \beta_0 + \beta_{IV}\hat{Z}_{ijk1} + \theta y_{ijk0} + \lambda S_{ijk1} + \beta_x X_{ijk0} + \delta_k + \epsilon_{ijk1}$$

- $Y_{ijk1}$ : Attitude composite score or Donation for individual  $i$  in village  $j$  in district  $k$  at endline.
- $\hat{Z}_{ijk1}$ : Predicted number of episodes watched from the first-stage regression.
- $y_{ijk0}$ : Baseline composite score for individual  $i$  (controls for pre-existing attitudes).
- $S_{ijk1}$ : Social desirability score at endline (controls for bias in responses).

## Findings: Household Features

- **Monthly Household Income:** BDT 19,596 (SD: 15,702)
- **Household Size:** 5.4 (SD: 1.7)
- **Access to Internet:** 53%
- **Concrete Roof:** 9%
- **Concrete Wall:** 36%
- **Concrete Floor:** 40%

## Background Features: Parents

	<b>Father</b>	<b>Mother</b>
<b>Age in Years</b>	45.3 (SD: 6.9)	36.7 (SD: 5.0)
<b>5+ Years of Schooling</b>	38%	40%
<b>Wage Worker</b>	51%	–
<b>Self-employed</b>	36%	–
<b>Service-holder</b>	11%	–
<b>Home-maker</b>	–	91%
<b>Working-mother</b>	–	9%

## Background Features: Adolescents

	<b>Boy</b>	<b>Girl</b>
<b>Age in Years</b>	14 (SD: 2.8)	13.6 (SD: 2.3)
<b>Student</b>	91%	98%
<b>Work with parents</b>	9%	2%

## TV Viewership Features

	<b>Father</b>	<b>Mother</b>	<b>Boy</b>	<b>Girl</b>
<b>Watches TV every day</b>	0.84	0.92	0.91	0.94
<b>Watches between 7-11 PM</b>	0.93	0.91	0.88	0.88
<b>Watches show channels</b>	0.56	0.37	0.44	0.37
<b>Watches foreign channels</b>	0.56	<b>0.80</b>	<b>0.77</b>	<b>0.78</b>



## First Stage: How Reminders Influenced Viewership

	<b>Father</b>	<b>Mother</b>	<b>Boy</b>	<b>Girl</b>
<b>Control</b>	<b>Ref.</b>	<b>Ref.</b>	<b>Ref.</b>	<b>Ref.</b>
<b>SMS Only</b>	0.08 (0.46)	0.24* (0.08)	0.33** (0.03)	0.54*** ( $<0.01$ )
<b>Call &amp; SMS</b>	1.78*** ( $<0.01$ )	1.60*** ( $<0.01$ )	1.50*** ( $<0.01$ )	1.93*** ( $<0.01$ )
<b>Control Viewership</b>	0.15 (0.82)	0.27 (1.69)	0.15 (0.96)	0.30 (1.69)

## Second Stage: Impact on Self-reported Attitudes

	<b>Father</b>	<b>Mother</b>	<b>Boy</b>	<b>Girl</b>
<b>Viewership</b>	0.02 (0.65)	0.001 (0.98)	0.02 (0.71)	0.04 (0.37)
<b>Baseline Score (Std.)</b>	0.10*** ( $<0.01$ )	0.12*** ( $<0.01$ )	0.07** (0.02)	0.17*** ( $<0.01$ )
<b>Social desirability (Std.)</b>	0.11*** ( $<0.01$ )	0.13*** ( $<0.01$ )	0.06** (0.03)	0.05 (0.11)
<b>Control Composite Score</b> (Scale: 0-33)	27.7 (4.1)	27.4 (4.3)	27.2 (4.4)	28.1 (3.9)

## Second Stage: Impact on Household's Charitable Giving

	<b>Stage 1</b>	<b>Stage 2</b>
<b>Control</b>	<b>Ref.</b>	
<b>SMS Only</b>	0.72*** ( $<0.01$ )	
<b>Call &amp; SMS</b>	3.27*** ( $<0.01$ )	
<b>Viewership</b>		0.01 (0.80)
<b>Baseline Score (Std.)</b>		-0.01 (0.72)
<b>Social desirability (Std.)</b>		-0.04 (0.23)
<b>Control Donation</b> (BDT 0-100)		12.6 (12.5)

- **Key Findings:**

- Strong encouragement increased viewership by only 2 episodes (approx. 40 minutes).
- Competitive media environment reduces attention to specific programs.
- No impact of the show on self-reported or incentive-compatible attitudes towards child marriage.

- **Possible Reasons:**

- Low Entertainment Value + High Competition → Higher Opportunity Cost → Low Viewership.
- Suggested behavior not aligned with pre-existing goals.
- Cognitive Process: Attention → Retention → Reproduction → Motivation

## Conclusion/Policy Implications

- Ensure strategic placement, timing, and entertainment value of edutainment show to compete in a crowded media environment.
- Assess the social environment to gauge readiness for behavioral change.
- Structural issues such as poverty and post-education employment opportunities, especially for girls, need to be ensured first to expect these edutainment tools to work appropriately.

Questions or Comments?

**Thank You!**

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