

A Placebo Design to Detect Spillovers from an Education-Entertainment Experiment in Uganda

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INTRODUCTION

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 - *Education*: Students may share knowledge with friends.
- If ignored, spillovers may bias effect estimates

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How can we learn about spillover effects of media interventions?

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... and many more

(see Benjamin-Chung et al. (2018) and Halloran/Hudgens (2017) for reviews)

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 - Assign villages to media campaign treatment
 - Asses effects on audience and on others in the same village.
2. Implements strategy in two large-scale experiments in rural Uganda to assess effect of education-entertainment media.

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Allows for estimation of stratum specific effects through simple subsetting approach

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- No evidence of spillovers – even in a context that should be conducive to diffusion

EXPERIMENTAL DESIGN

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Note that estimands are specific to delivery mechanism!

Identification problem

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- Cannot observe reachability in the control group
- Reachability may be correlated with potential outcomes
- Cannot compare those who were reached directly or indirectly in treatment group with control group as a whole

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 - E.g., may not want to measure reachability by asking about conversations about the festival

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A TWO-PART MEDIA CAMPAIGN IN UGANDA



Overview

- Two media campaigns in in rural Uganda

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- Avoid cross-cluster interference (villages at least 4km apart)
- Film festivals in local “video halls” to deliver treatment
 - screening of Hollywood movies
 - across six consecutive weekends
 - free of charge

Education-entertainment treatments

Three-part video vignettes screened during commercial breaks

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Violence against women

Education-entertainment treatments

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Teacher absenteeism

Education-entertainment treatments

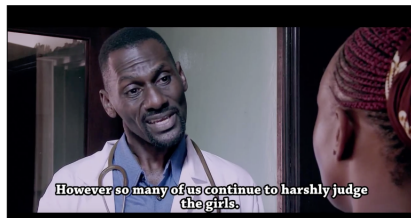
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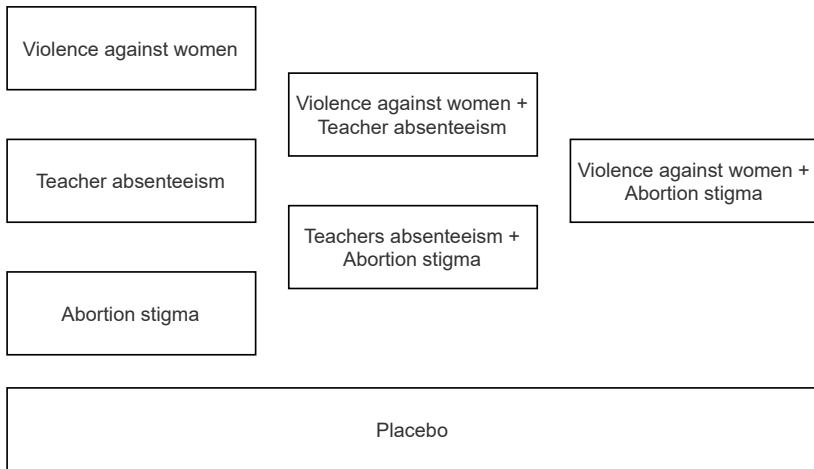


Teacher absenteeism



Abortion stigma

Random assignment – seven arm, three message design



(Requires additional assumption of no cross-over effects)

Sampling and outcome measurement

- Endline surveys roughly 2 months after film festival
- Seemingly unrelated to film festival
- Random sample of video hall catchment area
- 50 (40) respondents in each village
- High response rates (99% and 96%)
 - $N = 2,431$ in round 1
 - $N = 5,740$ in round 2

Measuring reachability

Using two survey questions asked at the end of the interview:

- Recently, a series of six free films (Fast and Furious, [etc.]) were screened in the kibanda in your trading center. Have you heard about the screenings and if so, how many screenings did you attend?
- Did your friends or family attend any of the screenings?

Background characteristics of strata

| Gender | Men | | | Women | | |
|----------------|------------------|--------------------|-------------|------------------|--------------------|-------------|
| Stratum | Reached Directly | Reached Indirectly | Not Reached | Reached Directly | Reached Indirectly | Not Reached |
| N | 962 (27%) | 1547 (43%) | 1105 (31%) | 478 (13%) | 1502 (40%) | 1737 (47%) |
| Age | 29 | 33 | 35 | 28 | 31 | 31 |
| Own TV | 21% | 25% | 32% | 15% | 23% | 28% |
| Own Radio | 87% | 87% | 87% | 72% | 76% | 74% |
| Rooms in house | 2 | 3 | 3 | 2 | 3 | 3 |
| Illiteracy | 9% | 10% | 12% | 15% | 13% | 18% |

- No evidence that probability of falling into strata varies with treatment
- No evidence of within- strata covariate imbalances across experimental conditions

Overview of results

- No apparent effects on attitudinal outcomes (direct or indirect)

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- Not even when disaggregating analyses by gender

Effects of anti-VAW education-entertainment

DV: Index of willingness to take action to counter violence against women

| | Reached Directly | Reached Indirectly | Not Reached | Not Reached Directly |
|--------------|-----------------------------|--------------------|-------------------|----------------------|
| VAW | 0.044** (0.015) | 0.003 (0.011) | -0.001 (0.014) | 0.002 (0.010) |
| Vill. SD | 0.08 | 0.07 | 0.09 | 0.06 |
| Observations | 1,154 | 2,441 | 1,918 | 4,359 |
| Notes: | *p<0.1; **p<0.05; ***p<0.01 | | | |

(Estimated among round 2 sample only)

Effects of teacher absenteeism education-entertainment

DV: Index of willingness to take action to counter absenteeism

| | Reached Directly | Reached Indirectly | Not Reached | Not Reached Directly |
|--------------|-----------------------------|--------------------|------------------|----------------------|
| absenteeism | 0.045** (0.013) | -0.001 (0.009) | 0.008 (0.009) | 0.002 (0.007) |
| Vill. SD | 0.1 | 0.07 | 0.08 | 0.07 |
| Observations | 1,518 | 3,187 | 3,026 | 6,213 |
| Notes: | *p<0.1; **p<0.05; ***p<0.01 | | | |

(Estimated among round 1 and 2 samples)

Effects of education-entertainment on abortion stigma

DV: Willingness to help someone suffering from post-abortion complications

| | Reached Directly | Reached Indirectly | Not Reached | Not Reached Directly |
|-------------|-----------------------------|--------------------|-------------------|----------------------|
| abortion | 0.043** (0.019) | -0.009 (0.014) | 0.0004 (0.016) | -0.004 (0.012) |
| Vill. SD | 0.15 | 0.12 | 0.12 | 0.11 |
| bservations | 1,518 | 3,187 | 3,026 | 6,213 |
| Notes: | *p<0.1; **p<0.05; ***p<0.01 | | | |

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DISCUSSION

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 - though may also indicate that first-hand exposure to dramatization is key

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 - Key assumption would be that attendance at community meetings is unrelated to leaflets