

# Countering violence against women at scale: A mass media experiment in rural Uganda\*

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## Abstract

Violence against women (VAW) is widespread in East Africa, with almost half of married women experiencing physical abuse. Those seeking to address this policy issue confront two challenges. First, some forms of domestic violence are widely condoned; majorities of men and women believe that a husband is justified in beating his wife in a variety of scenarios. Second, victims and bystanders are often reluctant to report incidents to authorities. Building on a growing literature showing that education-entertainment can change norms and behaviors, we present experimental evidence from a media campaign attended by over 10,000 Ugandans in 112 villages. In randomly assigned villages, video dramatizations discouraged VAW and encouraged reporting. Results from interviews conducted several months after the intervention show no change in attitudes condoning VAW yet a substantial increase in willingness to report to authorities, especially among women, and a decline in the share of women who experienced violence.

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## Introduction

Thirty-five percent of women worldwide have experienced physical or sexual violence by an intimate partner or non-partner sexual violence (WHO 2013). Permissive attitudes towards such violence are widespread in many contexts, even among women. Prominent attempts to counter violence against women therefore focus on changing people's views on whether it is acceptable to engage in such violence (Wagman et al. 2015). Even forms of violence against women that are predominantly seen as illegitimate, however, can remain widespread. For example, only a small percentage of rural Ugandans condone violence that is more forceful than slapping. And yet, more than one third of rural Ugandan women in the 2011 DHS survey report experiences of such violence.

One possible explanation is that victims and witnesses are reluctant to report cases of violence. Even in an environment in which violence is seen as illegitimate, it will be difficult to prevent it from occurring if victims and bystanders do not come forward. Extensive ethnographic and survey evidence suggests that women in East Africa are reluctant to bring intra-household conflict into public view (McCleary-Sills et al. 2016). Such reluctance may be linked to the risk of ostracism by a community that, though opposed to certain forms of violence, tends to be skeptical of the truthfulness of victims' accounts (Liang et al. 2005). The problem of violence is thus connected to perceived social norms. Prescriptive norms refer to prevailing views about how one should behave, while descriptive norms refer to expectations about what others will do. Descriptive norms come into play because victims and bystanders who anticipate that their accounts will not be believed may be unwilling to come forward, and, as a consequence, perpetrators may be able to commit violence with impunity.

An alternative approach to countering violence against women may therefore be to find ways of encouraging victims and bystanders to disclose what they know about violent incidents, especially in contexts where some forms of violence are already seen as illegitimate. A potential advantage of such a strategy is that, to the extent that descriptive social norms are more malleable than deep-seated attitudes towards gender inequality, it may not require as intensive a campaign as an approach that seeks to change views on the legitimacy of violence. NGO-led campaigns of the latter kind typically involve extensive on-the-ground mobilization efforts that bring community members and leaders together to reduce acceptance of power abuses within the home and to build collective

capacity to prevent and respond to violence against women (Wagman et al. 2015). While they have sometimes proven effective in changing views on the legitimacy of violence and in reducing the frequency of violent incidents (as described in greater detail below), such multi-faceted campaigns are prohibitively expensive to bring to scale in developing regions such as East Africa. The question of both theoretical and practical importance is whether lighter touch interventions can also be effective.

We present new experimental evidence illustrating mass media’s potential as well as its limitations. Ugandan villagers were exposed to a placebo-controlled education-entertainment campaign designed to convince audiences that VAW is deplorable and to encourage viewers to speak out. The campaign comprised 670 film screenings in 112 villages, attended by over 10,000 adults. We measure outcomes through seemingly unrelated surveys conducted two and eight months after the conclusion of the media campaign. Our video intervention had no statistically significant effect on general attitudes about VAW, such as whether husbands ever have legitimate grounds for hitting their wives. At the same time, we do find substantial changes in perceived descriptive norms and respondents’ willingness to report VAW to formal or informal authorities. In the control group, two-thirds of women believed they would face social sanctions for reporting incidents of VAW; our campaign reduced this belief by eighteen percent. Women became substantially more willing to report incidents of VAW to local authorities and agents of the state, as well as to family members. Moreover, men and women became more likely to believe that their fellow community members would intervene to stop VAW. In the communities where we screened our anti-VAW campaign, this apparent erosion of a norm against speaking out coincided with a decrease in violence: we estimate the probability that women in a household experienced violence over a six-month period following our films decreased by at least five percentage points, effectively preventing violence in hundreds of households. The theoretical implication is that it is possible to bring about a meaningful change in outcomes by encouraging disclosure to local authorities, even without bringing about a broad change in core attitudes.

The rest of this paper is organized as follows. In section 1 we provide contextual background to the problem of VAW in rural Uganda and in section 2 we summarize the leading theoretical perspectives on how best to address it. Section 3 describes our messaging campaign, and section 4 presents the experimental research design. Section 5 summarizes our key results: no apparent

changes in core attitudes about VAW or gender hierarchy more broadly; statistically significant shifts in perceived norms, especially those having to do with whether allegations of VAW are likely to be taken seriously; significant increases in willingness to report to authorities, especially among women; and a decline in the share of women who report experiencing intra-household violence. We address alternative explanations, such as social desirability bias, and present a series of robustness checks in the appendix. Section 6 concludes by discussing how the results obtained here might generalize to other policy domains and inform our theoretical understanding of citizen willingness to disclose information to formal and informal authorities.

## 1 Background

The UN definition of violence against women comprises a wide range of physical and emotional abuse that can occur within the private or public spheres ([United Nations General Assembly 1994](#)). This paper focuses primarily on physical violence inflicted by intimate partners within the home. Such acts are punishable by up to two years in prison under the Ugandan Domestic Violence Act of 2010. However, opinion surveys suggest permissive attitudes toward such violence are widespread in Uganda. Figure 1 shows women from Uganda, by comparison to other countries, are especially likely to state that husbands are justified in beating their wives in at least one of five scenarios.

This survey evidence may seem to imply that the main obstacle to violence prevention is its wholesale acceptance. However, this study and other recent work uncover important nuances in Ugandan public opinion towards VAW. [Tsai et al. \(2017\)](#), for example, find that VAW is perceived as acceptable by a majority of respondents when the victim is framed as having intentionally contravened gendered standards of behavior, but only by a small minority when the victim’s behavior is described as unintentional. This affirms our qualitative fieldwork that suggests violence is condoned only when it is seen as serving some “pedagogical” end. Further, we find that not all forms of physical violence are seen as acceptable. In surveys we conducted in 2016 among rural Ugandans, thirty-one percent of respondents said that a husband is justified in beating his wife when she “disobeys.” When asked whether they meant that she should be slapped or beaten with more force than that, only five percent of those who initially said that beating was justified endorsed more severe violence. The widespread reluctance to condone physical violence perceived as more forceful than slapping suggests that, if given the opportunity, bystanders who know about violent incidents

may see the need to come forward. In fact, eighty-eight percent of respondents in the control group of the experiment described below state that other people should intervene to stop violence if they learn of a husband beating his wife every evening. Yet almost one-third of rural Ugandan women in the 2011 DHS survey report that they had been punched with a fist, kicked or dragged, strangled or burnt, or threatened with knife or other weapons.<sup>1</sup>

A lack of state capacity may in part explain the inability to prevent the subset of violent acts that are widely seen as illegitimate. Law enforcement institutions are inaccessible in many parts of Uganda. Formal police posts are sparsely distributed in rural areas: our 2017 survey found that seventy-five percent of rural respondents see police on patrol in their village less often than once per week, and more than forty percent see them less than once per month.

Despite the lack of police presence, however, rural areas are not without state actors whose administrative purview includes VAW. Each village in Uganda is headed by an LC1 chairperson. Formally, the LC1 chairperson presides over the Local Council, which sets and implements policy for the village, and leads the Local Council Court, which has jurisdiction over civil law matters including cases of domestic violence. LC1 chairpersons regulate village life in ways that seem more similar to ‘informal social control’ (Schwartz and DeKeseredy 2008, 183) than to formal acts of law enforcement. For instance, an LC1 chairperson may levy symbolic sanctions against violent offenders or intervene on behalf of women at risk. Although Ugandan village leaders are often characterized as socially conservative, our survey data suggest that LC1 chairpersons (N=55) are in fact significantly more opposed to violence against women than the general population (eighteen percent of LC1 chairpersons and thirty-one percent of all villagers endorse the view that a husband has a legitimate reason to beat his wife if she “disobeys”). A similar role is played by *Nabakyalas*, or representatives of women in the village, who in our surveys almost never endorse violence against women. Victims of or bystanders to violence may thus seek help from village leaders, even where access to formal police is limited or police are distrusted.

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<sup>1</sup>These figures from the 2011 DHS are calculated using variables *D105a-f*, and *j*; these rates would be higher if one were to include as well questions concerning emotional and sexual abuse.

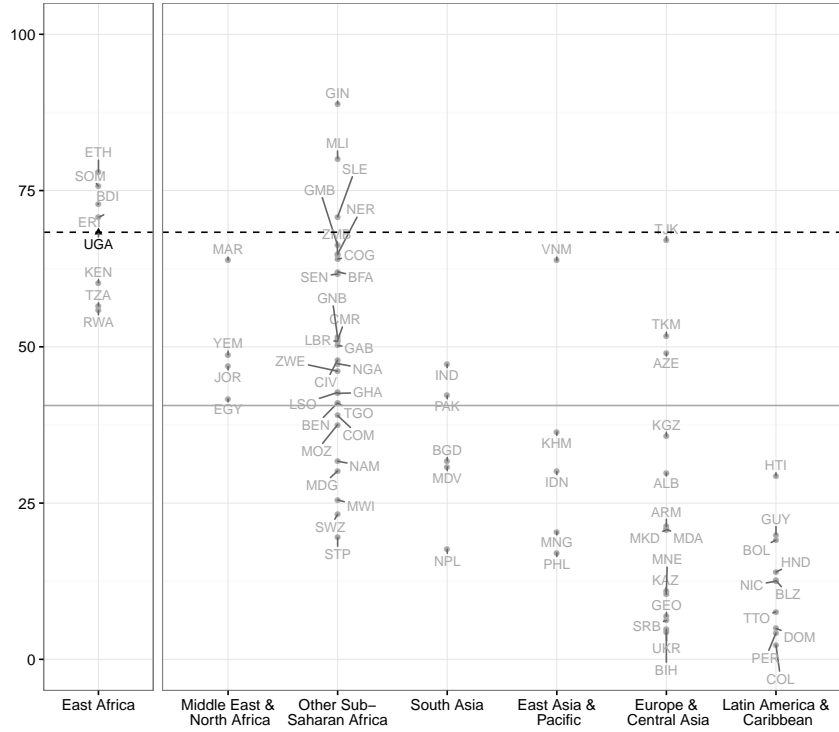


Figure 1: Average percentage of women who state that it is acceptable for a man to hit his wife in at least one of five scenarios.

Scenarios include: when she argues with him, burns the food, goes out without telling him, neglects the children, or refuses to have sex with him (DHS 2001-2015). Points show percentages by region and country, solid line shows average for all countries in sample, dashed line shows mean for Uganda.

A large literature suggests, however, that both formal and informal governance may be severely constrained by a lack of information. The hypothesis that states require information to govern gained prominence with Scott's (1998) notion of 'legibility' and is central to both the literature on policing as well as Ostrom's (1990) work on the co-production of public goods by states and citizens. Community-level actors are often thought to have an inherent advantage over the state in terms of access to information. Yet, when it comes to sanctioning socially harmful behavior that occurs in the private sphere, such as violence against women in the home, even community-level actors must rely on victims or witnesses who happen to overhear the incident in order to acquire the information needed to act. Indeed, in our survey, community members do not seem to be well informed about the total number of incidents of violence against women that happen in their village (i.e., beyond those occurring within their own household).<sup>2</sup> No less important is widespread reluctance on the

<sup>2</sup>We asked both men and women about the frequency with which assaults occur in their community and asked

part of both victims and bystanders to disclose what they know. For example, when asked what they would do if they learned that their cousin had been severely beaten, three-quarters of the respondents in our 2016 midline survey said they would prefer to merely express sympathy to her rather than alert the LC1 chairperson. Just one in ten respondents would be willing to report this type of incident to the police.

## 2 Theoretical Perspectives and Policy Approaches

As [Heise \(1998\)](#) points out, the literature on violence against women is challenging to summarize because it draws from a wide array of disciplines (e.g., health, gender studies, psychology, criminology, sociology, political science, anthropology, law), and prevailing theories operate at different levels of generality. In some literatures, the focus is primarily on psychological factors such as social dominance orientations or beliefs about gender hierarchy that impel men to commit assault or rape ([Claes and Rosenthal 1990](#); [Gottman et al. 1995](#); [Babcock et al. 2000, 2005](#)). This micro-level explanatory literature also considers the personal histories of men who commit violence, such as their childhood experiences as witnesses or victims of violence, both of which seem to be correlated with increased propensity for violence as adults ([Hotaling and Sugarman 1986](#)). These individual predispositions may be seen as embedded within a social environment that [Heise \(p.265\)](#) dubs a “microsystem,” within which the perpetrator and victim interact daily. In the context of East Africa, this environment may feature male control of wealth and autocratic authority over family decisions; it may also feature economic pressures or substance abuse, especially alcohol abuse ([Kantor and Straus 1987](#)). This microenvironment is, in turn, embedded within a broader ecology in which the woman may be socially isolated, especially from others who could assist her if she were assaulted, while the man may be surrounded by peers who encourage or model violence against women ([Miedzian 2002](#)). These contributing factors operate within a broader cultural sphere with defined gender roles in which masculinity is tied to aggression and dominance, while women are viewed as subordinate and subject to physical chastisement. A countervailing aspect of the macrosystem is the legal system allowing for divorce or proscribing domestic violence; these rules, when they are enforced, potentially change a perpetrator’s calculus of whether violence is worth the risks.

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follow up questions about assaults against women. Within the same location, men’s and women’s reports are weakly correlated, and both are weakly correlated with a separate battery of questions, described below, which asks women about incidents occurring within their household. See Tables 30 and 31 in F.2 of the Online Appendix.

A corresponding literature focuses, at varying levels of generality, on victim-level factors that facilitate victimization. Women may not speak about intra-household violence because they believe that certain forms of violence are legitimate or an embarrassing commentary on them as people; for both reasons, they believe that it should not be disclosed to others. These views may be reinforced by the local community, including other women, who may question victims' account or denigrate "gossips" who come forward with allegations of abuse.

This diverse literature has inspired a number of broad policy perspectives, each rooted in its own set of theoretical premises. The first emphasizes the importance of intervention by the state via the promulgation and enforcement of laws against VAW. This policy approach has the advantage of communicating prescriptive norms but in practice may exceed the capacity of the law enforcement and judicial systems of many developing countries, especially in rural areas. As noted above, police are spread very thinly throughout the Ugandan countryside, and one challenge in enforcing laws against VAW, even in developed societies, is that the police themselves view 'domestic disputes' as less worthy of their time than more conventional criminal complaints. Prosecutions for such crimes in the Ugandan criminal justice system are relatively rare.<sup>3</sup> Even in Western criminal justice systems, where arrest and prosecution represent credible threats to perpetrators, the experimental literature on deterrence of VAW suggests that police crackdowns on perpetrators do not significantly reduce rates of recidivism (Sherman, Schmidt, and Rogan 1992).

An alternative intervention model holds that substantial and enduring change requires an intensive community-wide campaign to raise awareness of gender-based inequality generally and change views on the legitimacy of VAW in particular. This kind of campaign aims to bring together community leaders, who are in a position to explain and publicize egalitarian views concerning gender hierarchy to community members, who discuss the new outlook and ways of implementing principles of gender equality in daily life. In the few instances in which these kinds of campaigns have been attempted and evaluated, the evidence points to changes in attitudes and a reduction in violence.<sup>4</sup>

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<sup>3</sup>See, for example, "Why GBV prosecution remains a challenge" in the Daily Monitor, December 4, 2017: <http://www.monitor.co.ug/SpecialReports/Why-GBV-prosecution-remains-a-challenge/688342-4214036-kdxbvez/index.html> (accessed on October 27, 2018).

<sup>4</sup>Intensive NGO-led efforts, such as the SASA! campaign in Uganda (Abramsky et al. 2014, 2016), have attempted to bring community members and leaders together to reduce acceptance of power abuses within the home and to build collective capacity to prevent and respond to violence against women. Wagman et al. (2015) presents another successful example of an intensive outreach campaign directed at men and boys. However, a large-scale evaluation in 250 slums in four cities in India assessed efforts to reduce VAW through women's self-help groups and workshops with men and boys, and found very little evidence of success (Holden et al. 2016). For meta-analysis see Bourey et al.



Putting aside questions about the precision with which these studies have isolated effects,<sup>5</sup> there remains the question of whether such interventions are scalable beyond the urban neighborhoods where they have been attempted. Few communities have the will and resources necessary to attempt this type of bold social change campaign, and thus the question is whether one can achieve a change in attitudes towards VAW with a less resource-intensive approach such as a mass media campaign.

To the extent that views on gender equality are deep-seated core values developed during formative childhood years (Brooks and Bolzendahl 2004), one may be skeptical about the persuasive power of media interventions. In a pilot study conducted in 2015, we found that an education-entertainment campaign which sought to convey that VAW is not acceptable did not significantly impact views on gender equality and the legitimacy of such violence (Redacted citation). That said, Jensen and Oster (2009) provide evidence that the introduction of cable television has reduced the acceptability of VAW in India. Evidence from communally deployed education-entertainment campaigns in Mexico (Arias 2018) also suggests that such campaigns have the capacity to reshape attitudes, even in the absence of parallel efforts among local elites to publicize the issue and their stance toward it.

An alternative approach is to focus on barriers other than views on the legitimacy of VAW. One such barrier is that witnesses of VAW (including victims) often hesitate to come forward to report incidents of VAW to others in the community who are in a position to intervene. In part, this reluctance may be linked to dominant views on the legitimacy of violence. If witnesses expect others to view VAW as legitimate or justified behavior, they may consider it futile to report cases of violence to others in the community. However, even if violence is condemned as illegitimate, there may be reasons that prohibit witnesses from speaking out. For example, witnesses may not be aware that others would be sympathetic to their cause and mistakenly believe that they would not receive any support. Moreover, even communities who see violence as illegitimate may not believe that the accounts of witnesses who come forward are truthful. Especially when it comes to sexual violence, research suggests that the belief in the prevalence of false accusations is widespread in many contexts (Ferguson and Malouff 2016; Wheatcroft and Walklate 2014; Tuerkheimer 2017).

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(2015), and for reviews of evidence see Fulu and Kerr-Wilson (2015).

<sup>5</sup>Prior randomized trials have assigned very small numbers of geographic clusters to treatment or control, which makes it difficult to reliably estimate the sampling variability associated with the estimated treatment effects. An exception is Holden et al. (2016), which largely reports nulls. Like the Holden et al. study, this one overcomes power limitations faced in previous work by randomizing among more than 100 geographic clusters.

Social sanctions related to the notion of ‘gossiping’ feature prominently in the open-ended comments that respondents in our survey in Uganda volunteered when explaining their reluctance to share information with their community about a hypothetical violent incident. Explanations focused on the fear of being accused of spreading rumors. Women face especially high reputational and physical costs for disclosing information that may incriminate men: fifty-six percent of women indicate that they would be labeled a gossip were they to disclose that a neighbor beats his wife. This evidence suggests that a media campaign may be able to encourage reporting by changing how witnesses who come forward are or expect to be treated, even if the campaign does not impact core values surrounding gender equality and the moral status of violence against women.

### **3 A Mass Media Campaign to Counter Violence Against Women**

Our anti-VAW media campaign consists of three short video vignettes screened during the intermission at film festivals held in video halls (*bibanda*) across a broad swath of rural Uganda (see Figure 2 for a map). Each vignette is between four and a half and eight minutes long. While an overarching narrative runs through the three vignettes, each can also be understood as a self-contained story in isolation from the other two. The narrative of the videos is outlined in Section E.3 of the Online Appendix, and they can be viewed at this address: [http://tiny.cc/Uganda\\_VAW\\_media\\_campaign](http://tiny.cc/Uganda_VAW_media_campaign). The film festival comprised six films shown one per week over consecutive weekends, from July 30 to September 4, 2016 in each of the 112 communities where the study took place (see Figure 3 for a timeline).

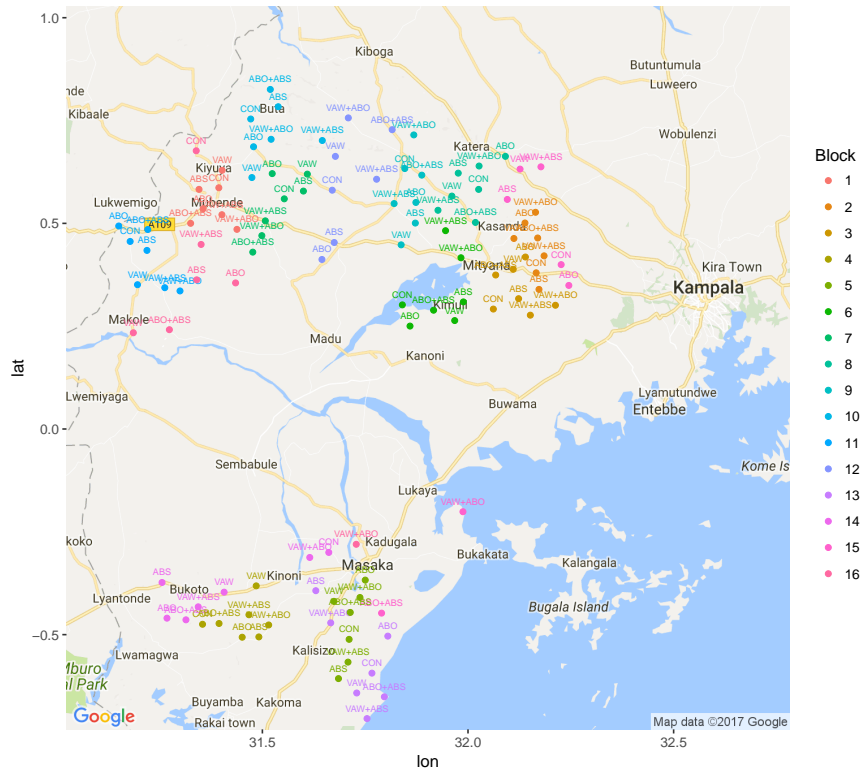


Figure 2: Clusters Included in the Study.

Colors indicate blocks within which random assignment occurred, while labels indicate the treatment condition to which the village was assigned.

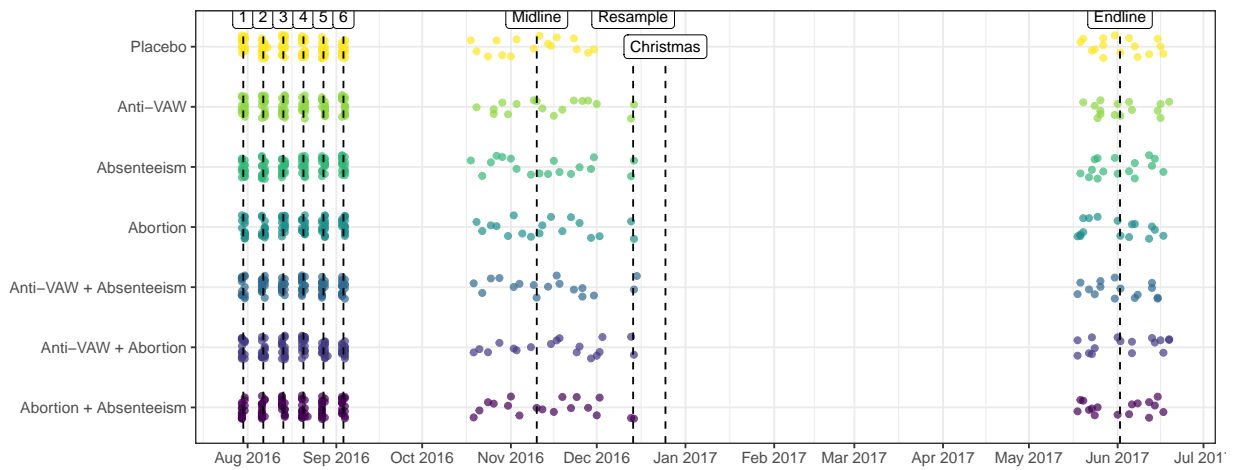


Figure 3: Timeline of media campaign, midline and endline surveys.

Points represent unique visits to villages, either to screen films or to collect data. Colors and the Y axis represent the different treatment conditions, the X axis is ordered by date. The film screenings numbered 1-6 featured the following Hollywood films, in order: Pirates of the Carribean; Slumdog Millionaire; Spy; The Fast and the Furious 7; Creed; and Oz The Great and Powerful.

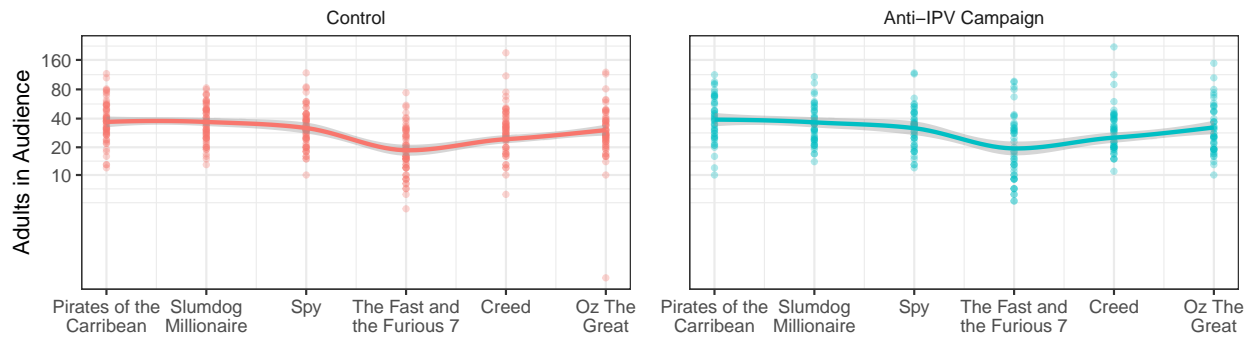


Figure 4: Adult attendance of screenings by treatment status.

The horizontal axis presents the films in chronological order. The vertical axis reports the number of adults attending a screening. Points represent a single screening, lines represent LOESS-smoothed average over time and confidence interval. Left panel reports only screenings in control villages, right panel reports attendance in villages assigned to anti-VAW campaign.

A key psychological principle underlying education-entertainment is the concept of “vicarious learning” (Bandura 2004). According to this theory, people acquire new ways of responding to social situations not only through direct experience, but also by making inferences based upon the observation of others’ behavior. Bandura points out that such learning need not take place through

the observation of actual behavior; people may also acquire new ways of acting based on behavior modeled in fictional dramatizations.

Our campaign uses education-entertainment to convey what Bandura terms a “differential modeling” narrative:

Characters representing relevant segments of the viewing population are shown adopting the beneficial attitudes and behavior patterns. [...] Other characters personify negative models exhibiting detrimental views and lifestyles. Transitional models are shown transforming their lives by moving from uncertainty or discarding adverse styles of behavior in favor of beneficial ones. Differential modeling contrasts the personal and social effects of different lifestyles. Viewers are especially prone to draw inspiration from, and identify with, transforming models by seeing them surmount similar adverse life circumstances. (Bandura 2004, 83)

Our videos follow this *Tale of Two Cities* motif. The first vignette begins in a village where there is reluctance to report VAW. The protagonist is a sympathetic and personable woman whose husband beats her severely despite her sincere efforts to appease him. As depicted in the first panel of Figure 4 in section E.3 of the Online Appendix, the protagonist’s neighbor overhears her screams but decides not to speak out. In the second vignette, which begins with the protagonist’s hospitalization and ends with her funeral, we learn that not only her neighbor, but also her daughter and parents knew about the violence. They express regret for failing to speak out sooner. In the third vignette, we move to the “disclosure” village. The focal woman in the story is also beaten by her husband, but unlike the woman in the preceding vignette, she decides to disclose this information to her parents. Rather than scold, her parents intervene to help mediate. Moreover, the parents share the information with the local women’s counselor (*Nabakyala*), who visits the household to provide guidance. The vignette closes with the couple in visibly better relations with one another. A voiceover confirms that the situation has improved and implores the viewer to speak out before it is too late when they learn of violence in their community.

This dramatization is designed to facilitate vicarious learning through a vivid and realistic depiction of the audiences’ context and experience. It is rare for media with high production value to be filmed on site and in the local language (Luganda). The video dramas, which were composed by local screenwriters, depict situations that would be very familiar to the participants in our study. And indeed the relevance of the films was apparent in a separate survey experiment we conducted wherein villagers directly watched our video material on hand-held tablets prior to answering survey

questions.<sup>6</sup> The vast majority (eighty-four percent) of respondents said that the stories could have happened in their village. That viewers found the stories relevant to their own lives is also reflected in what they said when invited to comment on the videos, for instance: “The video is so real” or “What I have seen in the video can also happen in my home.”

Vicarious learning is important theoretically insofar as it enables audiences to update their beliefs about both the prevalence of violence in their community and the motivations of those who claim that violence has occurred. The films present a strong case against the idea that allegations stem from baseless gossip. The videos not only depict people reporting an actual incident, but also show these reports being believed by those who receive the second-hand accounts. Another source of vicarious learning is common knowledge (Schelling 1960). In our case, the experience of viewing the videos in a communal setting enables audiences to update about how others in their community may be updating in light of their shared viewing experience (Arias 2018).

### 3.1 Ethical Considerations

We took a number of steps to ensure the appropriateness of our media campaign for the setting in which we work in order to make sure that it was protective of participants’ rights and well-being. As these require a fuller description than constraints allow for here, we include a description of the measures taken in section E.1 of the Online Appendix.

## 4 Research Design

Aside from the messages on VAW that are the focus of this paper, our field experiment was designed to test the effects of two other sets of video vignettes. These concern the stigma surrounding abortions and the problem of teacher absenteeism, respectively. We assigned villages to receive either: one set of vignettes (e.g., anti-VAW only); a combination of two sets (e.g., abortion stigma and anti-VAW); or a placebo (just the Hollywood movie with no vignettes). In total, this creates seven experimental conditions. Prior to random assignment, villages were organized into sixteen blocks of seven in order to minimize within-block variance in latitude and longitude (see Figure 2). The analyses in this paper will compare respondents from clusters (villages) that were exposed to the messages on VAW (anti-VAW, abortion and anti-VAW, and anti-VAW and absenteeism) to the

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<sup>6</sup>We did not include questions about respondents’ views on the videos in our main survey to preserve, as much as possible, its unobtrusive character.

respondents in clusters assigned to all other conditions (collectively referred to as the control group). We discuss the identifying assumptions behind this design in section A.1 of the Online Appendix and show that our results are robust when these assumptions are relaxed in sections B.1 and B.2.

Almost all sites complied with the treatment assignment insofar as we were able to correctly screen the assigned films and messages.<sup>7</sup> We measure individual-level compliance based on responses to questions about attendance of the screenings posed at the end of our surveys conducted months later.<sup>8</sup>

In most analyses, we focus on *compliers*, respondents who indicated they attended at least one of the screenings. (Section A.1 of the Online Appendix provides a fuller definition of compliers and describes their attributes.) By comparing compliers in the treatment group to compliers in the control group (i.e., those who saw films but not the VAW messages), we obtain unbiased estimates of the complier average causal effect.<sup>9</sup> As Figure 4 shows, attendance rates were similar across experimental conditions. In sections A.2 and A.3 of the Online Appendix we provide evidence that the treatment is not statistically significantly related to the rate at which people attended screenings or to the attributes of those who attended.

Compared to the rest of the sample, compliers are more likely to be men, young, and consume news media, and they are less likely to own a television (see Table 1 in section A.1 of the Online Appendix). The over-representation of men is related to the image of video halls in Uganda. Visiting a video hall tends to be seen as more appropriate for men than for women, as the video content presented typically consists of soccer matches and action movies. To counter this perception, our film festival was explicitly marketed as an event open to both women and men. As a result, our sample of compliers encompasses a sizable share of women (thirty-one percent).

Measurement of outcomes took place in two waves, illustrated in Figure 3. In our midline survey in late October 2016, we interviewed respondents from randomly selected households. Sampling was not conditional on attendance of the screenings, and the survey, which was conducted weeks after

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<sup>7</sup>In two villages only five of the six scheduled screenings took place. In one case, a video hall owner suspected that the movie *Oz The Great and Powerful* promoted black magic; in another case, a local leader sought to prevent the screening apparently in an effort to extract a gratuity. In neither case do we have reason to suspect that noncompliance was related to the experimental vignette featured in the film.

<sup>8</sup>“Recently, a series of six free films (Pirates of the Caribbean, Creed, Fast and Furious, Spy, Slumdog Millionaire, Oz The Great And Powerful) were screened in the *kibanda* [video hall] in your [village]. Have you heard about the screenings and if so, how many screenings did you attend?”

<sup>9</sup>See section B.2 of the Online Appendix for a discussion of alternative estimators that invoke different modeling assumptions but produce similar results.

the film festival, was billed as an unrelated public opinion poll, in order to avoid Hawthorne effects. We successfully interviewed 5,344 women and men in 110 of our 112 villages. The response rate was ninety-six percent, with most of the nonresponse coming from two villages where we were not able to conduct the survey due to resistance from local residents. As explained in the appendix, our inability to work in these locations does not appear to be related to the treatment status of the villages. Our main analysis therefore excludes villages in which we could not survey. Section B.4 of the Online Appendix shows the robustness of our main results to agnostic methods of imputing missing values.

In our endline survey in late May of the following year, we returned to the 110 villages in which we successfully conducted the midline survey in order to re-interview those who had reported attending at least one screening (compliers). Of the 1,156 midline compliers, we were able to re-interview 1,035, a follow-up rate of ninety percent.

In the following two sections, we discuss the main results of this study. To ensure comparability across analyses, almost all results are reported among the group of compliers who were interviewed in both the midline and the endline survey. As Tables 20 to 23 in the Online Appendix show, the results remain unchanged when we include all compliers who were interviewed in the midline survey or all compliers interviewed in the endline survey. When it comes to the effect of our treatment on respondents' experience of VAW, we report results among all respondents as well as the subset of compliers interviewed at the endline. Presenting results for all respondents allows for the possibility that the media campaign reduces victimization not only of potential victims who see our videos, but also of potential victims in other households who are now more willing to report what they see and hear.

## 5 Results

### Attitudes Towards VAW and Gender Equality

Even though our mass media campaign was designed to encourage reporting, it may have affected views on the legitimacy of VAW and gender hierarchy more broadly. The dramatization of a sympathetic wife who is beaten while trying to accommodate her husband's impossible demands might encourage empathy with victims of violence. The remorse expressed by the husband when his wife is hospitalized could similarly encourage men to regard domestic violence as behavior that



can have tragic consequences. Our experimental results, however, provide little support for these hypotheses. We find no apparent change in responses to the question, “In your opinion, does a man have good reason to hit his wife if she disobeys him?” or other scenarios, such as “she spends a lot of time chatting with friends in the market” or “she does not complete her household work to his satisfaction” (see the outcome *VAW Not Acceptable* in Figure 5). The same null results hold for both men and women, regardless of whether we focus on outcomes measured during the midline or endline surveys. By the same token, we find no treatment effects on whether victims of VAW are perceived to experience great suffering, on whether respondents believe that initial acts of VAW can easily escalate to more severe forms of violence and on support for gender equality, gauged by questions such as “Do you agree that it is more important that a boy goes to school than a girl?” or “Do you agree that the father, not the mother, should have the final say in the household?”<sup>10</sup>

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<sup>10</sup>Contrary to all other analyses, the analysis of treatment effects on the support for gender equality has not been pre-registered.

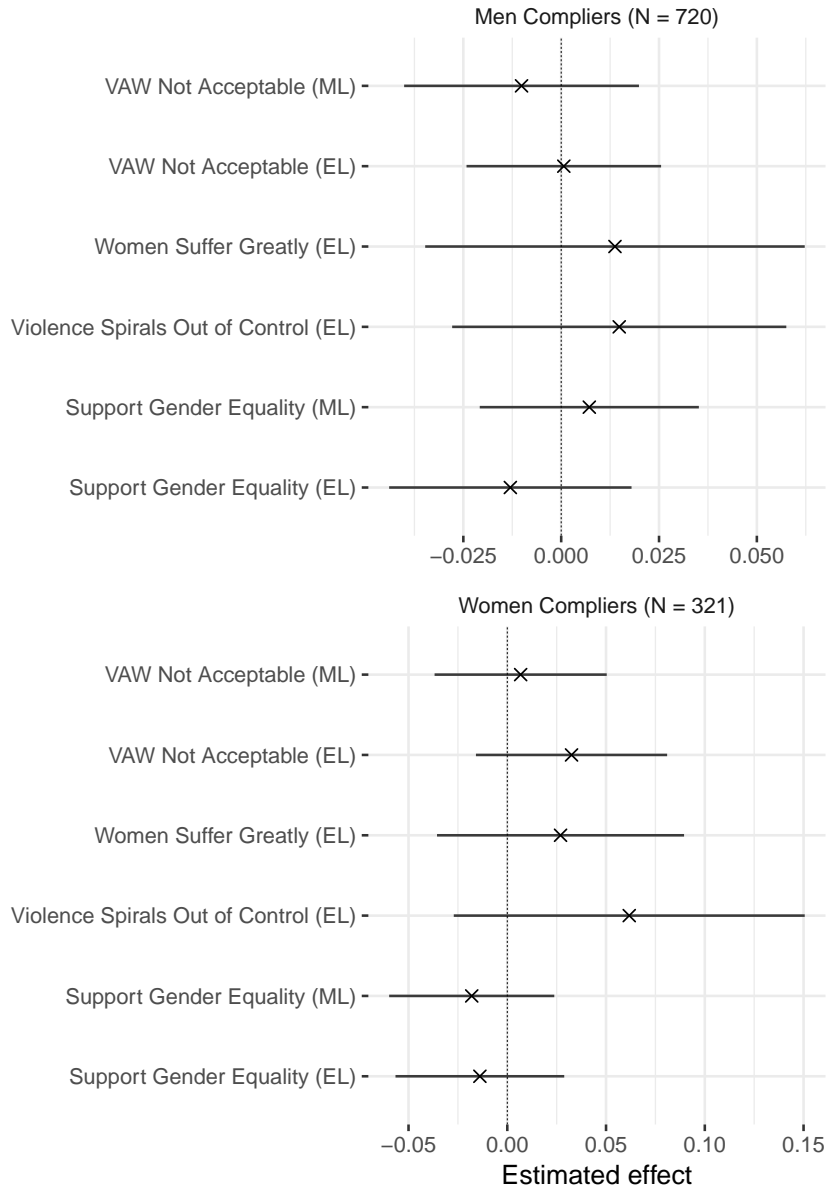


Figure 5: Attitudes on VAW and Gender Equality Largely Unaffected by Treatment.

All effects are estimated among compliers. Crosses indicate the estimated effect size, bars indicate 90% confidence intervals that are computed using the standard normal approximation of the randomization distribution. See section F.1 of the Online Appendix for tables, section E.2 for details on model specifications and section D for details on question wording.

### Willingness to Report VAW

The second set of outcome measures concerns what Fishbein and Ajzen (1975) call conative attitudes, or attitudes toward actions. Here, we are interested in whether, as theories of vicarious learning would suggest, exposure to the treatment videos changed viewers' inclination to help victims

report incidents to local authorities. Tables 1 and 2 show those who attended screenings became significantly more willing to report violence. The outcomes in columns 1-8 are based on questions that ask respondents to imagine discovering that their cousin has been severely beaten by her husband and offer respondents a choice between two actions, coding the outcome 1 if the respondent chooses the reporting option and 0 if they choose an option that implies inaction. These items measure the respondent's willingness to report the incident to the victim's parents, the women's representative in the village (Nabakyala), the LC1 chairperson, and the police. The outcome variable used in the last two columns takes the average of these items. Even though our intervention aimed to encourage reporting among both victims and bystanders, we did not ask respondents about scenarios that involve themselves being a victim to minimize the risk of re-traumatization.

Table 1 shows substantial and lasting effects on women's willingness to report violence: as columns 9-10 show, women who attended screenings with anti-violence messaging are nine to thirteen percentage points more likely to report to others ( $p < .01$ ). A striking feature of these effects is their persistence over time: we find highly significant estimated effects at both the two-month midline and the eight-month endline. The effects on men are suggestive but not as strong: the messaging increases the average measure of willingness to report among men compliers by two to four percentage points.

One might wonder whether the increased proclivity to report is attributable to a greater sense that reporting prevents future violence. It turns out that this sense tends to be widespread in the villages we studied, with over seventy percent of women and over eighty percent of men in control villages describing intervention as an effective way to prevent future violence. We do not find that our campaign changed perceptions of efficacy among men or women compliers. Evidently, the videos made viewers more inclined to act in a context in which they were already convinced that action would be effective.

### **Perceptions of the Community's Response to Reports of VAW**

If the videos did not increase the belief that reporting is effective, why was there an apparent increase in willingness to report? Table 3 suggests that many people perceived strong sanctions against reporting and that the treatment alleviates such concerns. Column 2 indicates that exposure to the media campaign sharply reduces the probability that women expect to be scolded for gossiping

<i>Would report VAW to:</i>	Parents		Counselor		LC1 Chairperson		Police		Reporting Index	
	Midline	Endline	Midline	Endline	Midline	Endline	Midline	Endline	Midline	Endline
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Anti-VAW Media	0.095* (0.057)	0.144*** (0.053)	0.076* (0.056)	0.171*** (0.058)	0.058 (0.049)	0.061 (0.057)	0.111*** (0.040)	0.130*** (0.048)	0.085*** (0.030)	0.126*** (0.035)
Control Mean	0.44	0.46	0.52	0.58	0.4	0.22	0.2	0.16	0.39	0.36
RI <i>p</i> -values	0.068	0.008	0.1	0.004	0.133	0.148	0.008	0.008	0.006	0
Hypothesis	Upr	Upr	Upr	Upr	Upr	Upr	Upr	Upr	Upr	Upr
Block FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	321	321	321	321	321	321	321	321	321	321
Adjusted R <sup>2</sup>	0.053	0.010	0.020	0.044	0.002	0.019	0.002	0.018	0.039	0.076

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table 1: The effect among women compliers of anti-VAW mass media on attitudes towards sharing information about VAW. All analyses are run on the individual respondent level. See section E.2 of the Online Appendix for details on model specifications and section D of the Online Appendix for details on question wording.

<i>Would report VAW to:</i>	Parents		Counselor		LC1 Chairperson		Police		Reporting Index	
	Midline	Endline	Midline	Endline	Midline	Endline	Midline	Endline	Midline	Endline
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Anti-VAW Media	0.080** (0.035)	0.037 (0.036)	0.037 (0.037)	0.055* (0.034)	0.021 (0.034)	0.062* (0.036)	-0.046 (0.025)	0.019 (0.035)	0.023 (0.019)	0.043* (0.025)
Control Mean	0.5	0.49	0.61	0.61	0.35	0.29	0.23	0.2	0.42	0.4
RI <i>p</i> -values	0.021	0.176	0.183	0.068	0.281	0.056	0.946	0.318	0.142	0.05
Hypothesis	Upr	Upr	Upr	Upr	Upr	Upr	Upr	Upr	Upr	Upr
Block FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	720	720	720	720	720	720	720	720	720	720
Adjusted R <sup>2</sup>	0.005	0.004	-0.014	0.008	0.002	0.003	0.001	0.007	0.001	0.019

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table 2: The effect among men compliers of anti-VAW mass media on attitudes towards sharing information about VAW.

All analyses use individual respondents as the unit of observation. See section E.2 of the Online Appendix for details on model specifications and section D for question wording.

(coded 1), rather than encouraged for doing the right thing (coded 0), if they were to report a hypothetical incident. The eleven percentage point reduction ( $p < .05$ ) brings women – the group for whom reporting may be most costly – in the treatment group roughly in line with men in the control group. The reduction in expected sanctions appears to center on social repercussions from the community at large: column 4 provides little support for the hypothesis that the campaign reduced respondents’ fear that friends or family of an accused perpetrator would take revenge. Nor is there any change in respondents’ perception that the community sees well-meaning interference in others’ affairs as generally acceptable.

Accompanying the change we see in descriptive norms is an increased expectation that members of the community would intervene in an incident of violence. Columns 5-6 show that men became four to five percentage points more likely to state that, if people in their community were to find out about a man beating his partner, those same people would intervene personally or mobilize others (coded 1) rather than minding their own business (coded 0). It is particularly important that this belief increases among men, since they are the principal perpetrators of violence against women. In columns 7-8 we see that this shift in beliefs is mirrored to some extent among women.

### **Reports of Violent Incidents**

Measurement presents a serious challenge to all studies of violence against women. Here, we measure violence using direct self-reports of victimization by survey participants, participants’ indirect estimates of how much violence against women occurs in their communities, and administrative encounters described by village health workers. Our ability to assess treatment effects using victimization data collected through a survey seemingly unrelated to the intervention presents an advantage over studies that rely purely on administrative data collected by police or other state authorities. Violence is only recorded in administrative datasets when individuals make post-treatment decisions to report to authorities, rendering estimates using such data prone to post-treatment bias. By contrast, we are able to measure incidents of violence revealed by respondents, even if those incidents were never reported to authorities. For this reason, we see self-reported victimization measures as the best measure of VAW.

Our primary measure of violence asks women respondents in the endline survey to count the number of times that they can recall a woman in their household, including themselves, experiencing

	Social Repercussions		Personal Retribution		Community Would Intervene			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Anti-VAW Media	-0.034 (0.034)	-0.114** (0.051)	-0.021 (0.041)	-0.029 (0.060)	0.052* (0.029)	0.043* (0.029)	0.081* (0.057)	0.068 (0.047)
Control Mean	0.49	0.63	0.52	0.58	0.75	0.79	0.72	0.73
RI <i>p</i> -values	0.199	0.042	0.344	0.334	0.052	0.096	0.092	0.106
Hypothesis	Upr	Upr	Lwr	Lwr	Upr	Upr	Upr	Upr
Sample	Men	Women	Men	Women	Men	Men	Women	Women
Block FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	720	321	720	321	720	720	321	321
Adjusted R <sup>2</sup>	-0.001	0.002	0.003	0.010	0.020	0.016	-0.002	0.003

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table 3: The effect among compliers of anti-VAW mass media on perceptions of the social sanctions associated with reporting. All analyses use individual respondents as the unit of observation. See section E.2 of the Online Appendix for details on model specifications and section D for question wording.

violence over the six-month period preceding the survey. To ensure that respondents in treatment and control have the same definition of violence in mind, we remind respondents of the many forms assault can take: “Assault can take many forms such as pushing, punching, bashing and hurting someone with a weapon. When a person forces another person to perform sexual acts that they don’t want to do, this is also assault.”

Conscious of the potentially traumatic nature of these questions, we paired female respondents with women interviewers, who were instructed to reassure respondents that they may answer these questions only if they were comfortable doing so and never asked to know the identities of the women or men involved.<sup>11</sup>

Table 4 presents the effect of the treatment on this self-reported measure under the column heading ‘Number of Incidents.’ Columns under the ‘Any Incidents’ heading report effects on a binary measure coded 1 if the number of incidents was greater than 0, and 0 otherwise. Rather than ask the respondent how many times VAW occurred, the ‘Violence Frequency’ measure asked those who reported more than 0 incidents whether violence occurred almost every day (coded 4), around once a week (coded 3), about once a month (coded 2), less than once a month (coded 1), or almost never (coded 0). Those who report 0 incidents are coded 0 on this measure.

Effects in columns 1, 2, 4, 5 and 7 are estimated among all women respondents in the endline survey ( $N = 1,036$ ), irrespective of whether or not they attended the movie screenings. We present the results at both the individual level (columns 2-3 and 5-8) and at the village cluster level (columns 1 and 4); both approaches produce similar estimates. When analyzing individual-level responses, standard errors are clustered at the village level, the unit of random assignment. In section B.3 of the Online Appendix, we illustrate that the findings are robust to alternative statistical models.

Columns 1 - 3 suggest that the screenings reduced the average rate at which women in treatment communities experienced violence by roughly .15 - .35 of an incident, from a baseline of just over half an incident on average. In our pre-analysis plan, we hypothesized that the campaign might either sensitize people to the issue of violence against women without deterring violence (thus increasing

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<sup>11</sup>Following [Follingstad and Rogers \(2013\)](#), we measure violence against women in a redundant manner in order to corroborate responses across questions. The first question asked “How many specific incidents since last Christmas can you remember when a woman in your household, including yourself, was a victim of violence?” The second question asked “In many of the villages we have visited, men sometimes beat women. Thinking again of the time that has passed since last Christmas, would you say that this has happened more than about once a week to a woman in your household, including yourself?” The question is then branched to categorize responses into “almost never,” “less than once a month,” “about once a month,” “once a week,” and “almost every day.”



	Number of Incidents			Any Incidents		Violence Frequency		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Anti-VAW Media	-0.177 (0.113)	-0.146 (0.091)	-0.346 (0.226)	-0.069*** (0.026)	-0.048** (0.022)	-0.132*** (0.049)	-0.296* (0.169)	-0.676** (0.287)
Control Mean	0.56	0.59	0.59	0.19	0.2	0.2	0.42	0.42
RI $p$ -values: IPV	0.128	0.159	0.138	0.009	0.038	0.007	0.088	0.014
Hypothesis	Two	Two	Two	Two	Two	Two	Two	Two
Sample	All W	All W	W compl.	All W	All W	W compl.	All W	W compl.
Analysis Level	Clus.	Indiv.	Indiv.	Clus.	Indiv.	Indiv.	Indiv.	Indiv.
Block FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Estimator	OLS	OLS	OLS	OLS	OLS	OLS	Ordered Logit	Ordered Logit
Observations	110	1,036	356	110	1,036	356	1,036	356
Adjusted R <sup>2</sup>	-0.033	0.002	-0.006	0.057	0.014	0.026		

\* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$

Table 4: The effect of anti-VAW mass media on incidents of violence against women over the preceding six-month period (endline).

All outcomes were measured during the endline survey. Analyses labelled “All W” are conducted among all women in the endline, regardless of compliance status, those labelled “W compl.” are conducted among women compliers only. Analyses in columns labelled “Indiv.” use individual respondents as the unit of observation, those labelled “Clus.” are conducted at the village level, after collapsing individual responses to the cluster-level using cluster-level means. Columns 7 and 8 report results from an ordered logit model. All other estimates rely on OLS. See section E.2 of the Online Appendix for details on model specifications and section D of the Online Appendix for details on question wording.

this measure) or deter violence (thus decreasing this measure). Accordingly, we pre-registered a two-tailed hypothesis test, and our estimates fall short of significance.

On the other hand, columns 4 - 6 show the campaign lowered the probability that a household experienced any incidents of VAW during this period. Column 4 shows that the campaign reduces the village-level proportion of women respondents who report any violence in their household by seven percentage points. The probability of observing effects of such magnitude due to sampling variability if there were no true effect is less than one percent. Column 5 reports a similar estimate, this time estimating the effect using individual data as opposed to village-level aggregates. Here anti-VAW messaging reduces the probability that women in a household experienced violence over the prior six months by five percentage points from a baseline of twenty percent, effectively reducing the probability of victimization by one-quarter in relative terms. Column 6 suggests that effects of the intervention are especially strong among women who actually attended the films, although further analysis of the interaction between treatment and attendance shows it to be of borderline statistical significance.

Columns 7 and 8 report the effects of the anti-VAW media on the frequency-based measure of victimization. Given the ordinal outcome measure, we fit an ordered logit model. The estimates indicate a reduction of the odds of a household experiencing violence almost every day as opposed to once a week, once a month or never by roughly thirty percent. Again, the estimated effects are especially strong and statistically significant among compliers.

We employ a weighted bootstrap method to estimate the total number of households that were prevented from experiencing any violence against women by the campaign (see section F.3 of the Online Appendix). The campaign prevented women from experiencing any violence in roughly six households in each of the forty villages where we screened the anti-VAW campaign, with a 95% confidence interval ranging from one to eleven households per village.

Because violence against women is so difficult to measure, any experiment that purports to show a reduction in incidence must immediately address the critique that the purported treatment effect is a measurement artifact. While such an interpretation cannot be ruled out conclusively, three facts militate against it.

First, the overall pattern of treatment effects that we observe among women respondents is at odds with the notion that the apparent reduction in violence is due to eagerness on the part of the

treatment group to please researchers by reporting fewer incidents. As we have discussed above, we find negligible effects on many outcomes that were closely connected to the topic of our treatment videos, such as whether husbands have legitimate cause to beat their wives. The effects we observe are largely confined to willingness to report violence against women, not core attitudes about the legitimacy of husbands being violent toward their wives.

Second, the hypothesis that women in the treatment group were offering socially desirable responses is undercut by the relatively weak inter-item correlations across different outcome measures, such as self-reported violence in the household, perceptions of views held by the community, and the respondent's own willingness to report incidents of violence (see Table 35 in section F.5 of the Online Appendix). If women in the treatment group were trying to paint a rosy picture about household relationships in their community, they were not doing so with much verve or consistency.<sup>12</sup>

Third, we designed the study so that there was little apparent connection between the film festival and the surveys that measured outcomes months later. In order to avoid priming respondents, the question used to measure household violence against women refers to incidents that occurred “since last Christmas,” months after the film festival concluded. One may worry that respondents in the endline perceive a connection between the film festival and the surveys because they were asked whether they had attended the film festival during the midline. However, as can be seen in Table 34 in section F.4 of the Online Appendix, we do not find any evidence that our main results are driven by the responses of compliers who had already been interviewed in the midline. If anything, treatment effects on victimization are larger among those compliers taking our survey for the first time.

In an effort to assess the reliability of alternative measurement approaches, we attempted to gather endline information about village-level incidence of VAW by interviewing the village health teams (VHTs) in each site. Village health teams are unpaid volunteers from the community who give health and counseling advice. Although VHTs were cooperative and response rates were high, we found their reported rates of violence for the village to be weakly correlated with the aforementioned village-level estimates we obtained from our interviews with women villagers. Across the 110 sites for

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<sup>12</sup>Yet another possibility is that by depicting violence in a particular way, we narrowed the definition of violence employed by compliers in the treatment, thereby reducing the numbers they reported. However, this interpretation of our findings is again contradicted by the null results on perceptions that violence is widespread in the community. Furthermore, in our survey we inform respondents that we are interested in a wide range of outcomes (see footnote 5).

which we have outcome data, the correlation between the number of incidents reported by villagers and the average number of incidents reported by VHTs is less than .01. We also attempted to corroborate the female villagers' reports at the village level with a battery of survey questions asked of all villagers about the incidence of violence in their community, with follow-up questions about the incidence of violence specifically against women. Again we find that average reports about VAW in the community at large are weakly correlated with female villagers' reports about violence within the household ( $r = .13$ ). We do not find treatment effects on any of these alternative measures (see table 30 in the appendix). This pattern of results is subject to multiple interpretations. One is that only the female villagers' have reliable information about incidents that occur within the household, which is why the treatment effects are apparent only for this outcome measure. We cannot rule out the possibility, however, that our results are a statistical fluke that occurred by chance in one outcome measure but not the others. Replication of the current study is needed to rule out the latter possibility.

## 6 Discussion

Crucial to the theoretical interpretation of our results is a recognition that exposure changes certain outcomes but not others. Although education-entertainment is often said to have special persuasive influence because audiences come to identify with the main characters and let down their guard when encountering new viewpoints (Slater and Rouner 2002), it should be stressed that we see very little evidence of attitude change on the acceptability of VAW and no indication whatsoever that the treatment causes viewers to rethink their position about gender hierarchy more broadly. Nonetheless, we observe a newfound willingness among viewers in treated locations to report incidents to police, village leaders, and victims' families. This change is especially pronounced among women, for whom reporting ordinarily carries elevated costs given widespread disdain for 'gossips.'<sup>13</sup> Women who watched the anti-violence videos, which dramatized a community being supportive of a victim who speaks out about domestic violence, months later expressed substantially more willingness to take complaints to the police and became more sanguine that their allegations will be believed rather than denounced. For their part, responses by male viewers in treated sites bear evidence of this shift in descriptive norms: they became more likely to indicate eight months later that their

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<sup>13</sup>Our 2015 survey of Ugandan villagers found gossiping was the offense that respondents felt most justified violence against women, overshadowing even infidelity.

community would intervene in response to incidents of domestic abuse. In line with these changes, we also observe a substantial reduction in the proportion of households reporting violence against women in the eight-month endline survey.

Overall, the results suggest that a change in norms and attitudes around reporting and, ultimately, reductions in violence can be achieved without a change in core attitudes. Stepping back, violence against women in Uganda has much in common with stubborn policy problems in other domains and regions. The key ingredients consist of a negative social behavior that governments seek to regulate coupled with the lack of information to do so. In this case, Ugandan law prohibits domestic violence, but the state and its informal agents have little ability to detect and address violations unless victims or bystanders come forward. Petty corruption by bureaucrats (De Graaf 2010), endemic theft of local utilities (Smith 2004), and illegal logging (Tacconi 2012) present analogous governance problems due to an inability to monitor and punish violations.

Solutions to policy problems of this type come in many forms. New institutions may be created to realign incentives, as in the case of community organizations that distribute resources in return for environmental management (Brandt, Nolte, and Agrawal 2016). New technologies may make it easier to detect and prosecute corruption or theft (Smith 2004). The state may forcefully bring unruly sectors to heel, sometimes razing entire neighborhoods in the process (Scott 1998), or a softer approach may be taken to change attitudes and behaviors through public outreach campaigns. In the case of violence against women, the latter approach has predominated.

Mass media campaigns provide a potentially cost-effective alternative that can be deployed on a vast scale. The question is, to what extent and under what conditions do media campaigns generate policy-relevant changes in attitudes and behavior? Few media campaigns have been evaluated rigorously, and most randomized trials have focused on health-related messaging. Nevertheless, the literature has begun to offer theoretically informative insights concerning the conditions under which media messages shape attitudes and behavior. Studies have repeatedly found weak effects from information campaigns whose messages are not conveyed through dramatization. For example, radio campaigns in Africa designed to encourage hand-washing (Galiani, Gertler, and Orsola-Vidal 2012), early childhood check-ups (Sarrassat et al. 2015), and communication with public officials (Grossman, Humphreys, and Sacramone-Lutz 2014, 704) generated little apparent change in listener behavior. Education-entertainment programs have been more successful in changing behaviors.

Blair, Littman, and Paluck (2017) found that embedding an encouragement to report corruption in a feature-length film induced Nigerian viewers to report hundreds of instances of corruption. Exposure to a yearlong radio soap opera reduced Rwandan listeners' deference to authority (Paluck and Green 2009). Although there has yet to be a direct experimental test of the relative effectiveness of information-only campaigns and education-entertainment campaigns, public health studies suggest that education entertainment has succeeded where information campaigns have failed (Banerjee, La Ferrara, and Orozco 2017; Banerjee, Barnhardt, and Duflo 2017).

Skeptics of media-induced effects have long contended that "propaganda" rarely succeeds in changing attitudes (Hovland, Lumsdaine, and Sheffield 1949). In many ways, our inability to change core attitudes is in line with this conclusion. At the same time, our study suggests a new way in which education-entertainment campaigns can affect policy-relevant behaviors. It appears that witnesses tend to be reluctant to report what they know for fear of social sanctions, perhaps because the dominant perception is that violence is rare and that false accusations are common. Especially when it comes to sexual violence, the view that women tend to fabricate accusations is widely held in many contexts (Tuerkheimer 2017). Moreover, powerful actors who can act with impunity as long as anti-disclosure norms prevail will have incentives to sustain such beliefs. Just as defenders of gender hierarchy benefit from dismissing women's allegations of abuse as malevolent gossip, so too do corrupt politicians by subjecting whistle-blowers to a campaign of intimidation, defamation, or outright violence (Friebel and Raith 2004; Ting 2008).

An important question concerns the conditions under which education-entertainment can encourage reporting. In a concurrent study conducted in a nearby rural region, we found that willingness to report VAW to police or community leaders was unaffected by our videos when they were shown to viewers individually in the context of a lab-like experiment, despite the close attention that respondents were paying to the treatment videos and short time that elapsed between exposure and outcome measurement. Communal exposure to anti-violence messages thus appears to be crucial for the change in perceived descriptive norms that we observe. In addition to the cinematic display of a sympathetic community, it may thus also have been the observations of and interactions with other audience members that led potential witnesses of VAW to change their expectations about how they would be treated should they come forward. A second scope condition for education-entertainment to encourage victims and bystanders to speak out through the channels discussed above is that

community members and local authorities are indeed willing to take action to stop the behavior in question were they to believe that it actually occurred. This condition implies that changes in local leadership can have important effects on reporting and, by extension, the prevalence of VAW, a potentially fruitful line of future research.

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