Violence against Women (VAW) is a vast and deep-seated policy problem that is thought to touch the lives of 30 percent of women globally. Many efforts by governmental and non-governmental actors to reduce violence against women (VAW) are intensive and costly: they involve boots-on-the-ground campaigns to change the way individuals think and behave. By contrast, campaigns that employ mass media present a low-cost and scalable alternative, and have been attempted in many contexts worldwide. Yet, due in part to a dearth of rigorous research, little evidence exists to aid in the assessment of these campaigns’ effectiveness. Can such mass media campaigns really change deep-seated attitudes and behaviors? We designed a large-scale field experiment to test the effectiveness of mass media at changing attitudes, encouraging reporting, and reducing violence in rural Uganda. Our evidence suggests that mass media may be able to reduce violence, not by changing deep-seated attitudes, but by lowering barriers to reporting (Green, Wilke and Cooper, 2019). In this paper, we delve into potential mechanisms along the pathway from media exposure to reduced violence via increased reporting.

I. Research Design

Our anti-VAW media campaign consists of three short video vignettes screened during the intermission at film festivals held in video halls (bibanda) in rural villages throughout a large area of central Uganda. 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. In a random subset of those festivals, we screened our three vignettes. In the other festivals, we did not screen any vignettes containing an anti-VAW message.

The videos can be viewed at this address: http://tiny.cc/Uganda_VAW_media_campaign. While an overarching narrative runs through the roughly four-minute vignettes, each can also be understood as a self-contained story in isolation from the other two.

The first vignette begins with the depiction of a sympathetic and personable woman whose husband beats her severely despite her sincere efforts to appease him. 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 a different 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. This last 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.

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 movies screened during the festival with no vignettes at all). In total, this creates seven experimental conditions. Prior to random assignment, villages were organized into 16 blocks of seven in order to minimize within-block variance in latitude and longitude. The analyses in this paper compare respondents from villages that were exposed to the messages on VAW (anti-VAW, abortion and anti-VAW, and anti-VAW and absenteeism) to respondents in clusters assigned to all other conditions (collectively referred to as the control group). For a discussion and defense of the identifying assumptions behind this design, we direct readers to the Online Appendix of Green, Wilke and Cooper (2019).

Almost all sites correctly screened the assigned films and messages. 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.

Measurement of outcomes took place in two waves. In our midline survey in late October 2016, we interviewed respondents from randomly selected households in proximity to the video halls included in the study. In order to avoid Hawthorne effects, we sampled respondents irrespective of their attendance of the screenings, and the survey, which was conducted weeks after the film festival, was billed as an unrelated public opinion poll. We successfully interviewed 5,344 women and men in 110 of our 112 villages.

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 respondents we refer to as compliers (described below). Of the 1,156 midline compliers, we were able to re-interview 1,035, giving a follow-up rate of 90%.

In most analyses, we focus on these compliers: those who indicated they attended at least one of the festival films in questions posed at the end of our midline surveys. By comparing compliers in the treatment group to compliers in the control group, we obtain unbiased estimates of the complier average causal effect.

II. Main Results

As reported in Green, Wilke and Cooper (2019), our main results focus on respondents who indicated they attended at least one of the films included in the study. The response rate was 96%, with most of the non-response coming from two villages where we were not able to conduct the survey due to resistance from local residents. Our inability to work in these locations arose due to concerns with the sampling procedures employed in all villages, so we do not believe attrition is related to the treatment status of the villages. Our main analysis therefore excludes villages in which we could not survey.

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?

6 See Online Appendix to Green, Wilke and Cooper (2019) for a discussion of alternative estimators that invoke different modeling assumptions but produce similar results. We further 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.
dents' attitudes toward the acceptability of VAW, on their willingness to report hypothetical incidents, and on victimization. The purpose of this paper is to describe an experimental examination of the mechanisms underlying these main results, so we describe those results only briefly here.

Exposure to VAW videos had no detectable effect on respondents' views about gender hierarchy or the legitimacy of intimate partner violence. Across a range of survey questions about whether it is acceptable for a man to hit his wife, the estimated effects are small and statistically insignificant.

We do, however, find a strong increase in respondents' willingness to report hypothetical incidents of violence to authorities. The effects are enduring and particularly strong among women. At midline, for example, women who saw the anti-VAW vignettes are eleven percentage points more likely to indicate they would report an incident of violence to the police when compared to their counterparts who attended the film festivals without the anti-VAW campaign. This gap remains at endline. For men, the effects on willingness to report to the police are not statistically distinguishable from zero, which perhaps reflects a gender difference in views on the state. But we do see among men statistically significant increases in willingness to report violence to family members, village counselors, and the village leader, all of which parallel statistically significant increases among women who attended film screenings.

There is evidence that this increased willingness to report translates into a reduction in the occurrence of actual violence. We estimate reductions in the number of incidents of violence that women report experiencing, in the probability that any such incidents occur, and in the frequency with which they occur in any given week. The results are strongly suggestive but not conclusive: while the estimated effects are consistently negative across all measures, p-values vary between .007 and .138, depending on the specification and measure.

III. Causal Mechanisms

The policy and theoretical implications of these findings hinge in part on the mechanisms through which our campaign increased willingness to report. Put differently, what barriers to reporting did the VAW videos overcome? In this section, we suggest that respondents' reluctance to report is linked to the expectation that others will doubt the truthfulness of any accusations they levy and will sanction them for reporting. We provide evidence here that our campaign was effective because it undermined these expectations.

Reports of violence against women are often difficult to verify. Husbands may, possibly strategically, inflict violence in ways that are not visible or attributable to them. Uncertainty about whether an accused perpetrator in fact committed violence allows for the notion that individuals could fabricate accusations. Especially when it comes to sexual violence, research suggests that the belief in the prevalence of false accusations is widespread in many contexts. Even community members who condemn VAW might sanction victims for speaking out if they tend, however erroneously, to view allegations as baseless gossip.

The idea that one can be socially sanctioned for ‘gossiping’ features prominently in the open-ended comments that respondents 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 appear to face especially high costs for disclosing information that may incriminate men: 56% of women in the control group indicate that they would be labeled a gossip were they to disclose that a neighbor beats his wife. More than a mere label, being branded a gossip can carry serious consequences. In a survey we conducted in 2015 in a neighboring area of Uganda, respondents were most likely to condone violence by a husband against his wife when it was portrayed as being in response to “gossiping with neighbors.” As a purported justification for violence, gossiping surpassed a
Table 1—Effect of Anti-VAW media campaign and survey experiment prime on proportion of respondents who state that they would report a hypothetical incident of violence to a local leader.

<table>
<thead>
<tr>
<th>Anti-VAW Campaign</th>
<th>Prime</th>
<th>Others Observe = 0</th>
<th>Others Observe = 1</th>
<th>Effect of campaign</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$\hat{\mu} = 82.7%$</td>
<td>$\hat{\mu} = 89.1%$</td>
<td>$\hat{\beta} = +6.38$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$N = 284$</td>
<td>$N = 230$</td>
<td>$SE = 3.20$, $p = 0.095$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$\hat{\mu} = 88.9%$</td>
<td>$\hat{\mu} = 91.0%$</td>
<td>$\hat{\beta} = +2.14$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$N = 305$</td>
<td>$N = 222$</td>
<td>$SE = 2.70$, $p = 0.630$</td>
</tr>
</tbody>
</table>

Note: $\hat{\mu}$ indicates the predicted proportion of respondents answering that they would report a hypothetical incident of violence to a local leader. Estimates of proportions are derived from pre-registered linear least squares regression of outcome on block fixed effects, an indicator for follow-up sampling, cluster size, and the treatment indicator(s), and are almost identical to sample means. $N$ indicates number of respondents in subgroup, $\hat{\beta}$ is a regression coefficient, and SE is its standard error (clustered at village-level). Non-parametric two-tailed $p$-values are calculated by re-estimating effects using 2,000 replications of anti-VAW campaign and survey prime assignments.

range of other scenarios, including infidelity and child neglect. In sum, our preparatory research uncovered a widespread belief in the idea that others will see accusations as malicious falsehoods and that those who make accusations will be sanctioned for doing so.

To further probe the importance of concerns about whether reports will be believed, we included a survey experiment in our endline survey. Respondents were presented with a hypothetical scenario in which, while walking home, they observe a neighbor beating his wife. At random, respondents were asked one of the following two questions:

- (Others Observe = 0): Suppose you know that you are the only one who has observed the incident, would you report it to a local leader (such as the village leader or women’s counselor)?
- (Others Observe = 1): Suppose you see a group of people from your community standing nearby, discussing the incident, would you report it to a local leader (such as the village leader or women’s counselor)?

We code answers 1 if the respondent answers yes and 0 otherwise. Table I breaks down the responses to this question by two randomly assigned factors. The columns divide responses by the main treatment status: whether the respondent attended a film festival featuring our Anti-VAW vignettes (Campaign = 1) or a festival without them (Campaign = 0). The rows divide responses by whether the respondent was primed to imagine that they are the only one who observes the incident of violence (Others Observe = 0) or that others also saw the incident (Others Observe = 1).

Comparing the two rows in the first column, we see that the hypothetical presence of other witnesses to an incident of VAW increases the stated likelihood of reporting the incident to village level authorities by about 6 percentage points ($p < .05$) among those who did not see the VAW vignettes. This result supports the idea that, absent our media campaign, concerns about being believed shape the decision to come forward. Knowing that there are other witnesses who can confirm a bystander’s report reduces the risk of being labeled a gossip and increases the willingness to speak out.

As can be seen in the first row of Table I, our media campaign increases the willingness to report among respondents who are primed to believe they are alone in witnessing a violent incident by about six percentage points ($p < .10$). How might our media campaign achieve this effect?

Our videos present a strong case against the idea that allegations stem from baseless gossip. The videos not only depict people reporting an actual incident, but they also show these reports being believed by those who receive the second-hand accounts. The
experience of viewing the videos in a communal setting enables audience members to observe others in their community internalizing and absorbing these same lessons. Audience members possibly infer that others in their community also changed their views about the plausibility of allegations.

Two pieces of evidence speak in favor of the campaign alleviating concerns about social sanctions related to gossiping. First, as we report in Green, Wilke, and Cooper (2019), the media campaign greatly reduces the share of women who expect to be scolded for gossiping rather than encouraged for doing the right thing, if they were to report a hypothetical incident. Whereas 63% of women in the control believe they will be scolded as gossips if they come forward, only 52% of those who saw the treatment videos share this belief ($p < .05$).

Second, turning back to Table 1, we find that our media campaign, if anything, diminishes the importance of the presence of other community members for the willingness to report. The second column shows that, among those who have been exposed to our anti-VAW vignettes, the estimated effect of the “Others Observe” prime on the willingness to report is an increase of only 1.86 percentage points—4.25 percentage points smaller than the estimated effect among those who have not been exposed to our media campaign. While not precisely estimated, this negative interaction is consistent with the notion that respondents in villages that were exposed to our anti-VAW media campaign are less concerned about whether there have been multiple observers of a violent incident matters less for the decision to report.

A possible alternative interpretation of the patterns we observe is that we are encountering ceiling effects, given the already-high baseline willingness to report. While we cannot entirely rule out such concerns, it is worth noting that the logit coefficients also yield positive coefficients for the two treatments (in each case $\hat{\beta}_{\text{logit}} = .51$) and a large negative interaction ($\hat{\beta}_{\text{logit}} = -.30$).

IV. Discussion

Our results imply that there are two substitute mechanisms that may inspire witnesses to come forward. In the face of a skeptical environment, individuals are more willing to report if there are other witnesses who can validate their accounts. A campaign that reduces skepticism about allegations can encourage reporting and appears to reduce the need for corroborating evidence in order to come forward. In practice, additional witnesses may often not be available. Whether as a strategic choice of perpetrators or not, VAW tends to happen in the private sphere of the home or otherwise out of sight of the surrounding community. By weakening respondents’ belief that others would be skeptical of their accounts, our mass media campaign reduced an important barrier to reporting.

While this is not the only mechanism through which our campaign might have produced its effects, we find little evidence for other plausible pathways. We find no evidence that our videos created empathy with the victims of VAW or increased awareness of its negative consequences. Nor do we think the videos simply gave people a script to follow: over 70% of women and men in control villages already viewed reporting as effective at preventing future violence, and we find no evidence that our campaign changed perceptions of efficacy. The results from the field experiment and survey experiment suggest that the causal mechanism hinges on whether those who come forward to report VAW can expect to be believed. A further implication of this interpretation is that this type of media campaign can only be effective if it is viewed widely by a community. Thus, the public screening of the VAW videos to large audiences may be an essential feature contributing to their effectiveness.

REFERENCES

Green, Donald P., Anna Wilke, and