

Shifting Household Dynamics: Evidence from a Pilot Edutainment Intervention Targeting Intimate Partner Violence*

Horace Gninafon[†]

September 20, 2025

Abstract

We present suggestive evidence from a pilot study of a radio-based edutainment program designed to reduce intimate partner violence (IPV) and shift gender norms in Rwanda. The six-episode series portrayed relatable characters navigating household and financial decision-making, aiming to foster cooperation and challenge harmful norms. Exposure to the intervention reduced physical and sexual IPV prevalence and lowered their severity, with the strongest effects observed for sexual violence. Emotional IPV, primarily verbal insults, increased, suggesting substitution away from more severe forms. The pathways through which the intervention reduced IPV include improvements in relationship quality, greater women's participation in financial decision-making, reductions in controlling behaviors, and the promotion of more egalitarian gender attitudes. Effects of the intervention were concentrated among less educated couples and women with prior IPV exposure, underscoring the program's potential to reach high-risk groups. Key lessons for scale-up include broadening engagement to address community-level norms, reinforcing bystander support, clarifying messaging around financial decision-making to avoid household tension, and prioritizing outreach to populations most vulnerable to IPV.

JEL codes: J12; J16; I14; I14; O12.

*We thank the NOVAH team—especially Alexis Atlani and Ivy van Regteren Altena—for sharing the data used in this analysis and for their valuable input throughout each stage of the pilot study. We are also grateful to Amber Peterman for her insightful comments and suggestions during our exchanges. This report is drafted for internal use. Usual disclaimers apply.

[†]Université Laval and African School of Economics (ASE). E-mail: hgninafon@gmail.com

1 Introduction

Intimate partner violence (IPV) against women remains a pressing public health issue in low- and middle-income countries. The problem is particularly acute in Sub-Saharan Africa, which records some of the highest prevalence rates globally. Estimates indicate that 44% of women in Central Sub-Saharan Africa and 38% in Eastern Sub-Saharan Africa report experiencing IPV ([Sardinha et al., 2022](#)). IPV has well-documented and severe consequences for women, negatively affecting their physical and mental health ([Beydoun et al., 2012](#)), social well-being, and agency ([García-Moreno et al., 2015](#)), thereby contributing to the persistence of gender inequality ([Oliver et al., 2019](#); [Stubbs and Szoeki, 2022](#)). While several factors predict IPV, a key driver of its persistence is the entrenchment of gender and social norms that legitimize and normalize such behavior ([Weber et al., 2019](#)). These norms sustain unequal power dynamics within marital relationships and perpetuate tolerance of violence. Much of the existing literature has focused on changing intra-household dynamics among adult men and women through interventions such as cash transfers ([Buller et al., 2018](#)) or community-level awareness campaigns that emphasize the harmful consequences of IPV in an effort to shift entrenched norms ([Heise, 2011](#)). Although women's empowerment interventions, such as conditional and unconditional cash transfers, have demonstrated promising effects in some contexts, their cost-effectiveness remains problematic ([Buller et al., 2018](#); [Groves et al., 2024](#)). Increasingly, edutainment has emerged as a potentially cost-effective approach to reducing IPV, though evidence of its effectiveness has been mixed across settings ([Peterman, 2025](#)).

This pilot study tests the effectiveness of an edutainment-based intervention that delivered a six-episode radio series (each approximately 20 minutes in length) designed to challenge prevailing gender norms and promote greater cooperation between spouses in household and financial decision-making. Grounded in theories of behavior change and social coordination, the intervention harnessed the power of narrative and peer modeling to foster attitude shifts, stimulate critical self-reflection, and facilitate the diffusion of more egalitarian social norms. Prior research in this domain highlights that relatable characters and emotionally engaging storylines can be particularly effective in transform-

ing deeply rooted beliefs and practices, especially in contexts where direct services or institutional enforcement mechanisms remain limited ([Peterman, 2025](#)).

To estimate the effects, we employ a difference-in-differences model with individual fixed effects. While the findings should be interpreted as suggestive, they provide promising evidence of the intervention's impact. Women exposed to the intervention reported lower levels of physical and sexual IPV, with reductions of 1–6 percentage points (pp) in prevalence and 0.17–0.28 standard deviations in severity. Effects were particularly pronounced for sexual IPV, suggesting the program effectively reduced coercive sexual behaviors. At the same time, reported emotional IPV, driven largely by verbal insults, rose in the treatment group. This may reflect a “substitution” effect: as men responded to women's increased voice and empowerment, they may have replaced physical or sexual aggression with less socially sanctioned forms of abuse. Importantly, however, overall IPV severity declined, indicating a net reduction in violence intensity. Beyond IPV outcomes, the program improved relationship quality, increased women's involvement in financial decision-making, and reduced harmful controlling behaviors. Effects on major household purchases were mixed, likely due to measurement noise or strategic withdrawal by women to avoid household tension. Exposure also fostered more egalitarian gender attitudes and reduced the acceptance of IPV. Heterogeneity analyses further suggest that the intervention was most effective among less educated couples and women with prior IPV exposure, highlighting its potential to reach those at highest risk and those most motivated to change household dynamics.

The scale-up of the piloted project therefore represents an important next step. The evidence suggests that while the intervention successfully reduced the severity of IPV and improved household dynamics, several areas merit refinement prior to wider implementation. Future iterations could place greater emphasis on explicitly addressing emotional IPV, as the pilot indicates that men may substitute away from physical or sexual aggression toward verbal insults when faced with shifting gender norms. In addition, scale-up would benefit from broadening engagement beyond the household to more directly target community-level norms. Although the storyline portrayed a survivor actively seeking help, women in treatment communities were more likely to report that they themselves would not intervene if another woman faced IPV, underscoring the

need for narratives that model proactive bystander support and collective community action. Clarifying messaging around financial decision-making also remains essential, particularly regarding major household purchases, to ensure that empowerment gains do not inadvertently create tension. Beyond these content refinements, scale-up should prioritize the populations who stand to benefit most. The heterogeneity analysis suggests that less educated couples and women with prior IPV exposure experienced the largest gains, pointing to the importance of tailoring programming to reach these high-risk groups while still maintaining broad community resonance. Addressing men's alcohol use also emerges as a priority, as preliminary findings show slight increases in men's drinking despite reductions in women's alcohol use—a notable concern given the strong documented link between alcohol and IPV. Finally, future large-scale evaluations must account for the measurement challenges inherent in sensitive behaviors such as IPV, where social desirability bias and disclosure dynamics can shape reporting. Incorporating alternative measurement strategies will be key for capturing true changes in IPV experienced, attitudes and social norms.

The remainder of the paper is organized as follows. Section 2 presents the context and intervention. Section 3 describes the data. Section 4 outlines the empirical strategy. Section 5 reports the results. Section 6 concludes with implications for scaling up the pilot intervention.

2 Context and Intervention Description

2.1 Context

In Rwanda, intimate partner violence (IPV) constitutes a major social and public health challenge. The 2019–2020 Rwanda Demographic and Health Survey (RDHS) reports that 46 percent of ever-married women aged 15–49 have experienced spousal abuse, with a prevalence rate of 41 percent in the Eastern Province, where this pilot study is being conducted. Longitudinal data show an increase in IPV prevalence among women, from 40.1 percent in 2015 to 46 percent in 2020 ([NISR et al., 2021](#)). These persistently high

and rising rates place Rwanda among the countries with the highest prevalence of IPV globally (Bahati et al., 2022).

A consistent set of risk factors emerges across the literature. Evidence from both the 2015 and 2019–2020 RDHS indicates that women married to uneducated spouses, those living in the poorest households, in unions where the husband consumed alcohol, or in crowded households of six or more members faced significantly higher odds of experiencing IPV. By contrast, women’s agency reflected in participation in decisions regarding their earnings and household expenditures as well as higher relationship quality, were associated with lower risks of violence (Bahati et al., 2022; McCloskey et al., 2016). In addition to the individual and household-level factors, harmful alcohol use, entrenched patriarchal gender norms, and socio-economic hardship have been widely recognized as structural drivers of IPV. In Rwanda, patriarchal institutions and gendered power hierarchies remain deeply rooted in social norms, even as progressive legal reforms have sought to advance gender equality (Bahati et al., 2022; Cullen et al., 2025).

2.2 Intervention description: Twubakane (Let’s Build Together)

Motivated by the contextual realities of rural Rwanda and drawing on evidence from the literature (Peterman, 2025), NOVAH implemented a social and behavior change intervention designed to promote gender equality, reduce intimate partner violence (IPV), and improve household decision-making. The intervention centered on Twubakane (“Let’s Build Together”), a scripted radio drama aimed at shifting social norms and behaviors.¹

The intervention employed an edutainment approach, delivering a six-episode radio series (each approximately 20 minutes in length) aimed at challenging prevailing gender norms and encouraging greater cooperation between partners in household and financial decisions. Grounded in behavioral change and social coordination theories, the intervention leveraged the power of narrative and peer modeling to foster attitude shifts, stimulate critical self-reflection, and facilitate the diffusion of more egalitarian social norms. Research in this domain emphasizes that relatable characters and emotionally engaging

¹The full intervention script is publicly available at: <https://www.novah.ngo/scene-synopsis-poc-twubakane-s1>.

storylines can be effective in altering deeply rooted beliefs and practices, particularly in contexts where direct services or institutional enforcement are limited ([Peterman, 2025](#)).

The core of the intervention was a serialized audio drama that follows the evolving relationship of Jeanine and Kazimiri, a young rural couple. Their marriage becomes strained due to Kazimiri's repeated unilateral decisions and rigid adherence to patriarchal authority, culminating in an incident of IPV. As tensions escalate, Jeanine seeks guidance from a respected community couple, Murihano and Kawera, who model joint decision-making, open communication, and mutual respect. Over the course of the series, Kazimiri begins to recognize the harm caused by his behavior, ultimately seeks forgiveness, and commits to shared decision-making and emotional accountability. The story concludes with the couple's reconciliation and visible economic progress, presenting listeners with a credible and culturally grounded model of positive transformation.

The overarching aim of the intervention is to reduce social acceptance of IPV, promote more equitable household dynamics, and shift community expectations around male behavior in intimate relationships.

3 Data and Descriptive Statistics

3.1 Data

The pilot study was implemented in 10 villages in Rwanda's Eastern Province to test the intervention's core hypotheses. Given the program's focus on preventing IPV, eligibility was limited to heterosexual couples who had been married or cohabiting for at least 12 months prior to recruitment, with both partners aged 18 to 40. Recruitment was conducted by enumerators in collaboration with village leaders through a door-to-door screening process. Eligible couples were enrolled, and the female partner was designated as the primary respondent. Data were collected through a face-to-face panel survey. The baseline survey was administered from June 16–19, 2025, immediately prior to the intervention, and the endline survey from August 4–7, 2025. There was a six-week gap

between the end of the intervention and the endline survey. Of the 200 women interviewed at baseline, 99.5 percent were successfully reinterviewed at endline. The number of participating households per village ranged from 7 to 30.

The survey collected background information on respondents and their spouses, including age, educational attainment, and socioeconomic characteristics such as household expenditures. It also measured multiple dimensions of IPV—physical, sexual, and emotional as well as related constructs, including attitudes toward IPV and harmful spousal controlling behaviors. In addition, the surveys capture factors commonly associated with IPV risk, including women’s agency, relationship quality, depression, and alcohol consumption.

3.1.1 Key Measures

The primary outcome is women’s experience of intimate partner violence (IPV) by their current partners in the two weeks preceding each survey round. We capture four dimensions of IPV: physical, sexual, and emotional violence, as well as spousal controlling behaviors. Measurement is based on a modified version of the Demographic and Health Surveys (DHS) domestic violence module, with two key adaptations: the recall period is restricted to the previous two weeks, and respondents provide binary (yes/no) reports of whether they experienced each form of violence.

Extensive margin: The IPV outcomes are measured as binary indicators equal to one if the respondent reported experiencing a given form of violence in the two weeks prior to the survey, and zero otherwise. A respondent is indicated as experiencing physical IPV if she reports any of the following: (i) being pushed, shaken, or having something thrown at her by her spouse; (ii) being slapped; (iii) having her arm twisted or hair pulled; (iv) being punched or hit with an object; (v) being kicked or dragged; (vi) being choked or burned; or (vii) being attacked with a weapon. Sexual IPV is measured by a dummy equal to one if the respondent reports: (i) being forced into sexual intercourse by her spouse; (ii) being forced into other unwanted sexual acts; or (iii) being threatened into unwanted sexual acts. Emotional IPV is defined as a dummy equal to one if the respon-

dent: (i) experienced emotional abuse, (ii) was humiliated by her spouse, or (iii) was threatened with harm by her spouse. We also construct a dummy for spousal controlling behaviors, coded as one if the respondent's spouse engaged in any of the following: (i) showing jealousy or anger when she talks to other men; (ii) frequently accusing her of infidelity; (iii) prohibiting her from meeting female friends; (iv) restricting her contact with family members; or (v) insisting on knowing her whereabouts at all times.

In addition to examining the overall impact of the intervention on each aggregate measure of IPV (physical, sexual, emotional, and controlling behaviors), we also estimate effects on each individual component used to construct these indices.

Intensive margin: Beyond measuring IPV incidence as defined above, we follow established literature in constructing standardized indices of IPV severity for each domain—physical, sexual, emotional, and controlling behaviors. Specifically, for each type of IPV we first sum the binary items used to define the outcome, yielding an unweighted count index. We then standardize this index within survey round (baseline or endline) by subtracting the round-specific mean and dividing by the round-specific standard deviation. For example, the severity of emotional IPV is measured by summing the three binary items described above, producing a raw score that ranges from 0 to 3. This score is then standardized using round-specific means and standard deviations to yield a z-score measure.

3.1.2 Pathways Measures

In each survey round (baseline and endline), we collect a set of indicators designed to capture potential pathways through which the intervention may affect women's exposure to IPV. First, we measure attitudes toward domestic violence, both as binary indicators and as standardized z-scores reflecting the intensity of acceptance, analogous to our IPV severity measures. Second, we capture women's agency, including participation in household decision-making across multiple domains (binary outcomes) and beliefs of respondents and their spouses regarding whether wives should have an equal say in household spending. Third, we construct a relationship quality index using a z-score

based on seven items capturing different dimensions of partner relationship quality; we also examine the intervention's impact on each individual component of this index. Finally, we measure additional intermediate outcomes, including women's well-being (using binary or continuous measures, depending on the indicator), depressive symptoms, alcohol consumption, and attitudes regarding the reporting of IPV in the community.

When interpreting the results, we provide a detailed explanation, as necessary, of how the indicators were constructed.

3.2 Descriptive Statistics

Table 1 reports baseline demographic and socioeconomic characteristics of respondents in the control and treatment (Twubakane) groups. On average, respondents in the treatment group are slightly older than those in the control group (30.7 vs. 28.9 years), and their spouses are also approximately two years older. Across both groups, male partners are on average about four years older than their female partners. Couples had been living together for over seven years at baseline, with no statistically significant differences between groups. Reflecting the older age profile, households in the treatment group are marginally larger (4.28 members) than those in the control group (3.90 members). Educational attainment among respondents is relatively high: 65% of women in the control group and 55% in the treatment group have education beyond the primary level. Notably, there are gender gaps in education within couples. In the control group, men are more likely to have higher education levels than their female partners, while in the treatment group, the gap appears reversed, with women more likely than their partners to have completed education beyond the primary level. Alcohol use is more common among respondents and spouses in the treatment arm. Relationship quality, measured on a four-point scale, averages around 3 in both groups, indicating moderate to high relationship satisfaction. Indicators of food security reveal small differences. Weekly food expenditures are slightly higher in the treatment group, although the difference is not statistically significant. In both groups, approximately half of food consumed comes from own production (50% in control vs. 47% in treatment).

Employment rates are broadly similar across groups. However, male respondents are substantially more likely to be employed than female respondents, with a gender gap of nearly 20 percentage points. A significantly higher proportion of respondents in the treatment group report having experienced an income shock in the past year (83% vs. 65%). With respect to intra-household decision-making, women in the treatment group report greater involvement in decisions about their own earnings (61% vs. 58%) and major household purchases (63% vs. 47%) than women in the control group. Conversely, women in the control group are somewhat more involved in decisions regarding their partner's earnings (52% vs. 48%). Gender norms around decision-making show limited variation between groups. Both treatment and control respondents report similar average scores regarding who should have equal say in household money matters (around 2.85 on a 4-point scale).

Table 2 presents baseline measures of intimate partner violence (IPV), including experiences of IPV in the two weeks preceding the baseline survey, harmful spousal controlling behaviors, and attitudes toward domestic violence, for both the control and treatment groups. Across most indicators, reported experiences of physical, sexual, and emotional IPV are low but reveal meaningful variation between arms. Physical IPV in the past two weeks is significantly more prevalent among women in the treatment group (9%) than in the control group (2%). This difference is consistent across specific forms of physical IPV. For example, 4% of women in the treatment group report being punched or hit with object by their spouse, compared to 0% in the control group. Similarly, sexual IPV is reported more frequently in the treatment group (16%) compared to the control group (13%). The share of respondents forced to have sexual intercourse in the past two weeks is 16% in the treatment arm versus 13% in the control group, though this difference is not statistically significant. More notable differences are observed in reports of other unwanted sexual acts and threats of sexual violence. Emotional IPV, including humiliation, threats, and insults, is also slightly more prevalent in the treatment group. For example, 10% of respondents in the treatment group report being humiliated by their spouse, compared to 2% in the control group. Insults by the spouse in the last two weeks, used as a proxy for emotional abuse, are similar across group (29% in the treatment group vs. 28% in the control group). In terms of normative attitudes toward domestic violence, a substantial proportion of respondents, particularly in the control group, agree

with various justifications for wife beating. Approximately 48% of control respondents, compared to 65% in the treatment group, believe that beating a wife is justified under at least one condition. Acceptance is especially high for transgressions related to family roles, such as neglecting children or having sex with another man. Notably, significant differences are observed on several specific justifications: 21% of treatment respondents (vs. 10% in control) justify wife beating if she goes out without informing her spouse, and 59% (vs. 43% in control) justify it for having sex with someone else. Finally, almost 80 percent of women, report experiencing harmful behaviors from their husbands. In addition, 25 percent of women in the treatment group state that their spouse prohibits them from meeting female friends, compared to 30 percent in the control group. Nearly half of respondents in both groups also report that their spouse insists on always knowing their whereabouts.

3.3 Determinants of IPV

Table 3 presents the correlations between a range of pre-intervention characteristics and the probability that a woman experienced physical, sexual, or emotional IPV in the two weeks prior to the baseline survey. To do so, we estimate the following linear probability model using the baseline data from this pilot study:

$$IPV_i = \delta_1 X_i + v_i \quad (1)$$

where IPV_i denotes a binary indicator equal to one if the respondent reported experiencing physical, sexual, or emotional IPV, respectively, and zero otherwise. The vector X_i includes baseline respondent characteristics (e.g., age, education, alcohol use), spouse characteristics, and household-level controls such as food security, income shocks, and intra-household decision-making.

While our focus is not on statistical significance per se due to the small sample size, we discuss the direction and magnitude of the estimated coefficients to shed light on the underlying correlates of IPV in this context. Several robust patterns emerge. The results should be interpreted as suggestive rather than conclusive.

Respondent age is positively associated with sexual IPV but negatively associated with emotional and physical IPV, though only the former is statistically significant. A one-year increase in age is linked to a 2.2 percentage point higher probability of experiencing sexual IPV. In contrast, spousal age does not appear to be a meaningful predictor of IPV, as the estimated effect sizes are close to zero.

Education appears to be differentially associated with IPV across types. Women with more than primary education are less likely to report physical and emotional IPV, by approximately 6.4 and 4.4 percentage points, respectively—consistent with the notion that educational attainment may increase bargaining power or reduce vulnerability to non-sexual violence. However, this pattern does not extend to sexual IPV, where the association is unexpectedly positive. Women with higher education are 9 percentage points more likely to report sexual IPV, potentially reflecting greater reporting accuracy or different spousal dynamics in more educated households. Spouse education is not significantly associated with IPV in any model.

Alcohol use by either respondent or partner is positively correlated with IPV, in line with broader evidence linking alcohol to aggressive behavior. Relationship quality, measured using a standardized score, is strongly and negatively associated with all forms of IPV. For instance, a one standard deviation increase in relationship quality is associated with a 5.2 percentage point decrease in the likelihood of experiencing physical IPV and 11.6 pp decrease in the likelihood of experiencing emotional IPV. This highlights the importance of interpersonal dynamics in shaping IPV risk.

Harmful controlling behaviors by the spouse are strongly predictive of all forms of IPV, with coefficients ranging from 0.063 to 0.102. This finding is consistent with theories of coercive control as a precursor to violence.

Women's labor market participation is associated with a 9 percentage point reduction in physical IPV but higher probabilities of sexual and emotional IPV, suggesting complex interactions between women's economic activity and household bargaining. Spousal employment is negatively correlated with sexual IPV but positively correlated with physical IPV.

Several household-level variables, such as food expenditure, food self-production, and exposure to income shocks, exhibit limited explanatory power. However, when the households are exposed to adverse income shocks, this increases the likelihoods of women to experience IPV.

Finally, decision-making power within the household does not consistently predict IPV, although some coefficients (e.g., decisions on major purchases) are positively associated with physical IPV. These patterns may reflect reverse causality or complex power dynamics that cannot be fully disentangled in a cross-sectional framework.

Overall, these results highlight the multidimensional drivers of IPV in rural Rwanda, underscoring the importance of relationship quality, alcohol use, education, and spousal control as central correlates at baseline.

4 Empirical Methodology

To estimate the impact of the intervention on the outcomes of interest—including women’s experience of IPV—and to account for the non-random assignment of villages to treatment and control groups, we implement a difference-in-differences (DiD) specification with individual fixed effects. This approach exploits the panel structure of the data to control for unobserved, time-invariant individual heterogeneity. Specifically, we estimate:

$$Y_{ivt} = \alpha_1 Post_t + \alpha_2 (Twubakane_v \times Post_t) + \rho_i + \varepsilon_{ivt} \quad (2)$$

where Y_{ivt} denotes the outcome of interest for individual i in village v at time t . The treatment indicator $Twubakane_v$ equals one if the respondent resides in a village assigned to the Twubakane intervention and zero otherwise. The variable $Post_t$ equals one in the post-intervention period and zero otherwise. The coefficient α_2 identifies the intention-to-treat effect of the intervention on the outcome, ρ_i captures individual fixed effects, and ε_{ivt} is an idiosyncratic error term.

$$Y_{ivt} = \alpha_1 Post_t + \alpha_2 (Twubakane_v \times Post_t) + \alpha_3 (Twubakane_v \times Post_t \times X_{ivt}) + \rho_i + \varepsilon_{ivt} \quad (3)$$

where X_{ivt} denotes pre-intervention characteristics along which heterogeneous treatment effects are assessed. The coefficient α_3 identifies differential impacts of the program depending on baseline values of X_{ivt} . All other terms retain the same interpretation as in Equation 2.

The intervention was designed for heterosexual couples to jointly attend six episodes of the radio drama. In practice, compliance was very high: out of 140 couples assigned to treatment, only four husbands and one wife failed to attend with their partner, implying that just five couples did not experience the intervention together. This low rate of non-compliance suggests that the intention-to-treat effect closely approximates the local average treatment effect (LATE). While we do not present these results in the paper, we also estimated LATE effects for the key outcome variables, and the results were nearly identical. These estimates are available upon request.

5 Results

5.1 Main findings

In this section, we present the estimated impacts of the Twubakane radio drama intervention on various dimensions of intimate partner violence (IPV), using an individual fixed-effects Difference-in-Differences (DiD) model.

As this study is based on a pilot intervention, the sample size limits statistical power to detect treatment effects, even if such effects are present. Consequently, our interpretation of the results emphasizes the direction and magnitude of estimated effects rather than statistical significance alone. Terms such as "positive" or "negative" treatment effects should therefore be interpreted as suggestive of the potential direction of impact, rather than as evidence of statistically significant changes.

Figure 1 reports the overall effect of the intervention on the combined prevalence of physical or sexual IPV, as well as on the severity of such violence, measured through standardized z-scores. The results suggest a 6 percentage point reduction in the likelihood of experiencing physical or sexual IPV in the past two weeks, and a 0.28 standard deviation reduction in the severity index. Although these estimates are not statistically significant due to limited statistical power, they indicate meaningful potential impacts.

Figures 2 and 3 disaggregate the effects by type of violence. Specifically, Figure 2 focuses on physical IPV, while Figure 3 (Panel: Sexual IPV) presents results for sexual IPV. Across both domains, women exposed to the Twubakane program report lower rates of violence across nearly all individual indicators. Estimated reductions in prevalence range from 1 to 6 percentage points, while reductions in severity (standardized indices) range from 0.17 to 0.22 standard deviations. The effects are particularly pronounced for sexual IPV, suggesting that the intervention may have been more effective in reducing coercive sexual behavior than physical aggression.

Figure 3 (Panel: Emotional IPV) presents the impact of the intervention on emotional IPV. In contrast to the reductions observed for physical and sexual IPV, the intervention appears to have increased the reported prevalence of emotional IPV by 4 percentage points—a 14% increase relative to the baseline. A closer examination of the individual components of emotional IPV reveals that this effect is primarily driven by an increase in reports of being insulted by one’s spouse (a 7 percentage point increase, or approximately 25%). The intervention appears to reduce other forms of emotional abuse, such as humiliation or threats. A plausible explanation for this unexpected finding lies in the mechanisms through which the intervention operated. The Twubakane program explicitly encouraged dialogue, joint decision-making, and the rejection of physical violence. These messages appear to have translated into meaningful reductions in those domains. However, greater female empowerment and the promotion of women’s voice in household decision-making may have simultaneously challenged entrenched gender norms, provoking resistance among some men. In settings where men perceive their authority as being undermined, emotional forms of IPV—particularly insults—may be used as a “substitution” strategy, replacing physical or sexual violence with less socially sanctionable forms of aggression. It is important to note, however, that despite this in-

crease in emotional IPV, the overall severity of IPV—captured by a composite z-score index—declined by 0.2 standard deviations. This suggests that the Twubakane intervention may have contributed to an overall reduction in the intensity of emotional IPV, even if patterns of abuse shifted in their form.

5.2 Mechanism

To better understand the mechanisms underlying the intervention's impact on IPV, we explore potential mediating factors that may have contributed to the observed effects. This analysis is not only useful for interpreting the pilot findings but also for informing future adaptations of the Twubakane program prior to potential scale-up.

Power Dynamics, Household Decision-Making and Relationship Quality: We assess the intervention's influence on several hypothesized mediators and complement this analysis with heterogeneity tests. A central component of the Twubakane intervention was the promotion of joint decision-making within couples. The narrative emphasized that the exclusion of one partner, particularly women, from important household decisions can lead to frustration, tension, and potentially violence. Accordingly, we examine whether the intervention shifted intra-household power dynamics by estimating its effect on women's involvement in decision-making and on attitudes surrounding gender roles in financial matters.

As shown in Table 4, women exposed to Twubakane were more likely to report that their husbands believe wives should have an equal say in how household money is spent. This shift in attitude was reflected in actual behavior: exposed women were more likely to be involved in decisions regarding both their husband's income and their own earnings. These results suggest that the intervention led to greater inclusion of women in financial decision-making, potentially reducing IPV by addressing underlying sources of power imbalance. However, results are more nuanced when it comes to decision-making around major household purchases. Surprisingly, the intervention appears to have reduced the likelihood that women reported involvement in these decisions. We of-

fer two potential interpretations for this finding. First, it may reflect measurement noise. The short time interval between baseline and endline (approximately 6 weeks), combined with the relatively low purchasing power of rural households, makes it unlikely that many major purchases occurred during the study period. Second, it is possible that women, recognizing the narrative emphasis in Twubakane on the link between exclusion from major decisions and household conflict, may have intentionally withdrawn from these decisions to avoid tension. Among these two interpretations, the first seems more plausible, given the short observation window and economic context.

To further investigate the potential pathways of impact, we examine whether the intervention improved the quality of the couple's relationship. We construct a standardized Relationship Quality Score based on responses to seven items: (1) the partner gives emotional support to the wife; (2) the wife gives emotional support to her partner; (3) the partner asks for her advice when facing problems; (4) the partner tries to be honest with her; (5) the wife feels able to share her interests and opinions; and (6) when disagreements arise, the partner tries to understand her point of view. Results show a significant improvement in both the composite relationship score and each individual item among women exposed to the intervention (See Table 5). Given that Twubakane explicitly emphasized the importance of empathy, emotional support, and mutual respect, these findings suggest that the program successfully fostered improved relational dynamics, which may serve as a buffer against IPV.

To validate the role of joint decision-making as a mediating mechanism, we test for treatment heterogeneity based on women's involvement in household decisions at baseline. Figure 4 shows that the intervention had a stronger negative effect on IPV among women who were not involved in household decision-making at baseline, compared to those who already had a voice in such decisions. This supports the idea that the intervention was particularly effective in contexts where baseline power imbalances were more pronounced and where the scope for change was greater

, Alcohol Consumption and Well-being: Depression, alcohol consumption and Well-being are key factors associated with domestic violence. Women who experience IPV are more likely to suffer from depression, which in turn undermines their well-being—factors

that are known to have negative intergenerational consequences (Falb et al., 2025). Because the intervention reduced IPV, we also examine its effects on these related outcomes. Specifically, we test the impact of the program on well-being, depression, and alcohol use—the latter often serving as a proxy for depression in some contexts.

To measure depression, we follow Manea et al. (2012) and administered the Patient Health Questionnaire (PHQ-9) to female respondents. The PHQ-9 captures multiple dimensions of depression, including loss of interest or pleasure in daily activities, feelings of sadness or hopelessness, sleep disturbances, fatigue or low energy, changes in appetite, feelings of worthlessness or guilt, difficulty concentrating, psychomotor agitation or retardation, and suicidal thoughts. As shown in Table 6, the intervention reduced depression severity score (Column 1). Following Kroenke (2012), we also examine effects on different clinical thresholds: mild depression (score ≥ 5), moderate depression (score ≥ 10), moderately severe depression (score ≥ 15), and severe depression (score ≥ 20). The evidence indicates that women exposed to the intervention are significantly less likely to experience depression, particularly at more severe levels.

These results are consistent with the positive impacts of the program on well-being, as measured by indicators such as happiness (1–10 scale), self-reported feelings of well-being in the week prior to the survey, and life satisfaction (1–10 scale) (see Table 8). We also find that the intervention reduced women’s propensity to consume alcohol. However, a modest increase in alcohol consumption is observed among men exposed to the intervention (see Table 9).

Attitudes and norms regarding the acceptance of domestic violence: Women’s acceptance of intimate partner violence (IPV) is often shaped by socioeconomic disadvantage and by prevailing social and cultural norms. In contexts where patriarchal norms are pervasive and women consider IPV to be justified, such attitudes may implicitly signal to men that violent behavior toward their partners is socially tolerated. A central message of the radio drama emphasized that IPV against women should never be accepted.

The intervention substantially shifted these attitudes. Exposure to the program reduced the share of women reporting that IPV is justified by 11 percentage points and

lowered the intensity of IPV acceptance by 0.12 standard deviations (see Figure 6). In addition, respondents were presented with hypothetical scenarios during the survey in which they were asked how they believed a woman in their community would respond if she experienced IPV. Women in treatment communities were less likely to state that victims should remain silent or refrain from reporting domestic violence (Table 7, Column 1). At the same time, however, respondents in treatment areas were more likely to report that they themselves would “do nothing” or would not intervene to assist a woman in their community facing IPV (Table 7, Column 2). Although the radio drama’s storyline portrayed a woman survivor actively seeking help, these findings suggest that future scale-up might benefit from incorporating narratives that also depict community members offering proactive support to survivors—even in cases where victims themselves do not initiate help-seeking.

Harmful spouse controlling behaviors: As shown in Figure 5, controlling behaviors by husbands are strong predictors of intimate partner violence. The Twubakane intervention significantly reduced both the prevalence and the severity of these harmful behaviors, suggesting that improving relational dynamics was a key pathway for reducing IPV.

Heterogeneity by couple education levels: We next examine whether these effects vary by education level and prior exposure to IPV. Evidence from the 2020 RDHS shows that less-educated women are more likely to experience IPV than their more-educated counterparts. Figure 7 presents treatment heterogeneity by both women’s and husbands’ education. We find that the intervention is more effective among couples with lower levels of education. This pattern may be explained by the fact that less-educated couples have fewer cognitive and informational resources to independently challenge entrenched gender norms, making exposure to the radio narrative and community dialogues particularly transformative.

Heterogeneity by prior IPV experience: We also explore whether the intervention’s effects differ based on whether women reported IPV prior to the intervention. Results

reveal that Twubakane had substantially larger impacts among women who had experienced IPV in the 12 months preceding the intervention (see Figure 8). This suggests that couples who are already struggling with violence may be more receptive to the intervention's messages, as they have heightened awareness of the issue and stronger motivation to change household dynamics.

6 Lessons learned and pathways for scaling up the intervention

The pilot evaluation of Twubakane demonstrates that edutainment-based approaches hold meaningful promise for reducing intimate partner violence (IPV) in rural Rwanda. Exposure to the six-episode radio drama was associated with reductions in physical and sexual IPV, improvements in relationship quality, greater inclusion of women in financial decision-making, and declines in harmful controlling behaviors by husbands. At the same time, the intervention appeared to increase reported emotional IPV, largely driven by verbal insults, suggesting the possibility of a substitution effect as men adjusted to changing power dynamics within the household. Importantly, however, overall severity of IPV declined, highlighting the potential of such interventions to mitigate violence even in the short term.

Lessons for Scale-Up Scaling Twubakane offers opportunities to refine some of the content of the current version of the intervention. Several areas warrant particular attention:

Strengthening the treatment of emotional IPV: The pilot suggests that some men responded to reduced acceptability of physical and sexual violence by shifting toward more socially permissible forms of aggression, such as insults. Addressing this substitution effect is critical. Future scripts could explicitly depict and challenge emotional abuse as well, while modeling constructive alternatives for resolving conflict.

Broadening community-level engagement: While Twubakane emphasized household dynamics, scale-up could more directly target community norms. The pilot indicates that in treatment areas women were more likely to report that they themselves would “do nothing” or not intervene if another woman in their community experienced IPV. Although the storyline depicted a survivor actively seeking help, these findings suggest that scale-up might benefit from incorporating narratives that also model proactive bystander behavior and collective community support, even in cases where survivors do not initiate help-seeking.

Clarifying decision-making around major household purchases: The finding show that in treatment villages, women are more likely to report involvement in major purchase decisions. While likely reflecting measurement noise given the short observation window, future programming could provide clearer messaging that emphasizes joint decision-making in all financial matters, while addressing potential tensions that arise when norms are challenged.

Targeting high-risk populations: The heterogeneity analysis showed that less-educated couples and women with prior IPV exposure experienced the largest benefits. Scale-up efforts may therefore prioritize these groups, while also adapting content to ensure broad community resonance.

Addressing men’s alcohol use: The pilot provided preliminary evidence that the intervention reduced women’s alcohol consumption but may have slightly increased alcohol use among men. Given the well-documented link between alcohol and IPV, future iterations could integrate more direct messaging around alcohol use, stress management, and healthy coping strategies.

Considerations for Measurement: As with all interventions addressing sensitive behaviors, measurement challenges must be acknowledged. IPV is subject to strong social desirability bias, with underreporting shaped by stigma, fear of reprisal, and community

expectations. It is possible that exposure to Twubakane influenced not only behaviors but also women's willingness to disclose violence. This is likely given that the intervention substantially reduced pro-IPV attitudes and behaviors within a relatively short period of time, in a context where such practices are notoriously difficult to change. Future large-scale evaluation should account for these dynamics and seeking improved approaches to measuring IPV.

Taken together, the pilot findings highlight both the potential and the limitations of short-term, media-driven interventions. Twubakane succeeded in shifting attitudes, reducing the severity of IPV, and improving household dynamics in a relatively short period, underscoring the promise of edutainment in contexts where direct services are scarce. At the same time, the unexpected increase in reported emotional IPV, the mixed results around financial decision-making, and the potential influence of social desirability bias underscore the importance of iterative adaptation prior to scale-up. With refinements—particularly a stronger focus on emotional IPV, the inclusion of narratives that model community bystander support, clearer messaging around financial decision-making, and the integration of content on alcohol use—Twubakane has the potential to evolve into a scalable and cost-effective intervention.

References

- Bahati, C., J. Izabayo, P. Munezero, J. Niyonsenga, and L. Mutesa (2022). Trends and correlates of intimate partner violence (ipv) victimization in rwanda: results from the 2015 and 2020 rwanda demographic health survey (rdhs 2015 and 2020). *BMC women's health* 22(1), 368.
- Beydoun, H. A., M. A. Beydoun, J. S. Kaufman, B. Lo, and A. B. Zonderman (2012). Intimate partner violence against adult women and its association with major depressive disorder, depressive symptoms and postpartum depression: a systematic review and meta-analysis. *Social science & medicine* 75(6), 959–975.
- Buller, A. M., A. Peterman, M. Ranganathan, A. Bleile, M. Hidrobo, and L. Heise (2018). A mixed-method review of cash transfers and intimate partner violence in low-and middle-income countries. *The World Bank Research Observer* 33(2), 218–258.
- Cullen, C., A. Alik-Lagrange, M. Ngatia, R. Pierotti, and J. Vaillant (2025). The unintended impacts of an intimate partner violence prevention program in rwanda.
- Falb, K., A. Peterman, R. Nordås, A. Field, R. Porat, and L. Stark (2025). Violence against women and girls research: Leveraging gains across disciplines. *Proceedings of the National Academy of Sciences* 122(4), e2404557122.
- García-Moreno, C., C. Zimmerman, A. Morris-Gehring, L. Heise, A. Amin, N. Abrahams, O. Montoya, P. Bhate-Deosthali, N. Kilonzo, and C. Watts (2015). Addressing violence against women: a call to action. *The Lancet* 385(9978), 1685–1695.
- Groves, A. K., L. T. Gebrekristos, M. C. Stoner, F. X. Gómez-Olivé, K. Kahn, and A. E. Pettifor (2024). Assessing the durability of a cash transfer on physical intimate partner violence and sexual relationships among adolescent girls and young women in rural south africa. *Social science & medicine* 350, 116948.
- Heise, L. (2011). What works to prevent partner violence? an evidence overview.
- Kroenke, K. (2012). Enhancing the clinical utility of depression screening. *Cmaj* 184(3), 281–282.

- Manea, L., S. Gilbody, and D. McMillan (2012). Optimal cut-off score for diagnosing depression with the patient health questionnaire (phq-9): a meta-analysis. *Cmaj* 184(3), E191–E196.
- McCloskey, L. A., F. Boonzaier, S. Y. Steinbrenner, and T. Hunter (2016). Determinants of intimate partner violence in sub-saharan africa: a review of prevention and intervention programs. *Partner abuse* 7(3), 277–315.
- NISR, R., R. MHK, and DHS (2021). Rwanda demographic and health survey 2019-20 - final report.
- Oliver, R., B. Alexander, S. Roe, and M. Wlasny (2019). The economic and social costs of domestic abuse.
- Peterman, A. (2025). Edutainment to prevent violence against women and children. *The World Bank Research Observer*, lkaf002.
- Sardinha, L., M. Maheu-Giroux, H. Stöckl, S. R. Meyer, and C. García-Moreno (2022). Global, regional, and national prevalence estimates of physical or sexual, or both, intimate partner violence against women in 2018. *The Lancet* 399(10327), 803–813.
- Stubbs, A. and C. Szoek (2022). The effect of intimate partner violence on the physical health and health-related behaviors of women: A systematic review of the literature. *Trauma, violence, & abuse* 23(4), 1157–1172.
- Weber, A. M., B. Cislighi, V. Meausoone, S. Abdalla, I. Mejía-Guevara, P. Loftus, E. Hallgren, I. Seff, L. Stark, C. G. Victora, et al. (2019). Gender norms and health: insights from global survey data. *The Lancet* 393(10189), 2455–2468.

Table 1: *Baseline balance: Respondent profile and characteristics by intervention arm*

Characteristic	Control (C)	Twubakane (T)	P-value (T - C)
Age	28.88	30.74	0.02**
Spouse's age	32.30	34.20	0.01**
Months respondent has lived with spouse	85.93	100.54	0.12
Household size	3.90	4.28	0.03**
Respondent has education above primary	0.65	0.55	0.19
Spouse has education above primary	0.72	0.46	0.00***
Respondent drank alcohol in past 2 weeks	0.03	0.11	0.07*
Spouse drank alcohol in past 2 weeks	0.43	0.53	0.22
Relationship quality score (1 = low, 4 = high)	2.99	2.84	0.11
Food spending in past 2 weeks (RWF)	14,985.50	18,453.57	0.06*
% of food from own production (past 2 weeks)	49.67	47.04	0.50
Respondent worked in past 2 weeks	0.65	0.64	0.85
Spouse worked in past 2 weeks	0.83	0.86	0.57
Household experienced income shocks (past year)	0.65	0.83	0.01***
Respondent involved in decisions on spouse's earnings	0.52	0.48	0.62
Respondent involved in decisions on her earnings	0.58	0.61	0.75
Respondent involved in major household purchases	0.47	0.63	0.03**
Wife should have equal say in household money decisions	3.38	3.52	0.10
Spouse: wife should have equal say in household money	2.88	2.84	0.77

Notes: P-values are from Wald tests of equality of means between control and treatment groups.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 2: Baseline balance: Experienced IPV, attitudes toward domestic violence and husband's controlling behaviors by intervention arm

	Control (C)	Twubakane (T)	P-value (T - C)
Experienced physical IPV in the past 2 weeks	0.02	0.09	0.07*
Pushed, shook, or had something thrown by spouse in last 2 weeks	0.02	0.04	0.47
Slapped by spouse in last 2 weeks	0.00	0.02	0.26
Arm twisted or hair pulled by spouse in last 2 weeks	0.00	0.02	0.26
Punched or hit with object by spouse in last 2 weeks	0.02	0.04	0.47
Kicked or dragged by spouse in last 2 weeks	0.02	0.03	0.62
Choked or burned by spouse in last 2 weeks	0.00	0.02	0.26
Attacked with weapon by spouse in last 2 weeks	0.02	0.04	0.47
Experienced sexual IPV in the past 2 weeks	0.13	0.16	0.58
Forced to have sexual intercourse by spouse in last 2 weeks	0.13	0.16	0.67
Forced into other unwanted sexual acts in last 2 weeks	0.00	0.04	0.14
Threatened into other unwanted sexual acts in last 2 weeks	0.00	0.04	0.14
Experienced emotional IPV in the past 2 weeks	0.28	0.29	0.89
Humiliated by spouse in last 2 weeks	0.02	0.10	0.04**
Spouse threatened harm in last 2 weeks	0.03	0.08	0.24
Insulted by spouse in last 2 weeks (emotional abuse)	0.28	0.29	0.97
Harmful spouse controlling behaviors	0.77	0.79	0.77
Spouse jealous or angry if she talks to other men	0.62	0.57	0.55
Spouse frequently accuses her of being unfaithful	0.22	0.30	0.22
Spouse does not permit her to meet female friends	0.30	0.25	0.47
Spouse tries to limit her contact with her family	0.15	0.10	0.31
Spouse insists on knowing where she is at all times	0.53	0.49	0.54
Acceptance of domestic violence	0.48	0.65	0.03**
Beating wife justified if she goes out without telling spouse	0.10	0.21	0.05*
Beating wife justified if she neglects the children	0.15	0.34	0.01**
Beating wife justified if she argues with spouse	0.03	0.05	0.60
Beating wife justified if she refuses sex with spouse	0.10	0.10	1.00
Beating wife justified if she burns the food	0.05	0.09	0.31
Beating wife justified if she has sex with someone else	0.43	0.59	0.05**
Beating wife justified if she looks at her phone	0.05	0.05	1.00

Notes: P-values are from Wald tests for equality of means.

*** p<0.01, ** p<0.05, * p<0.1

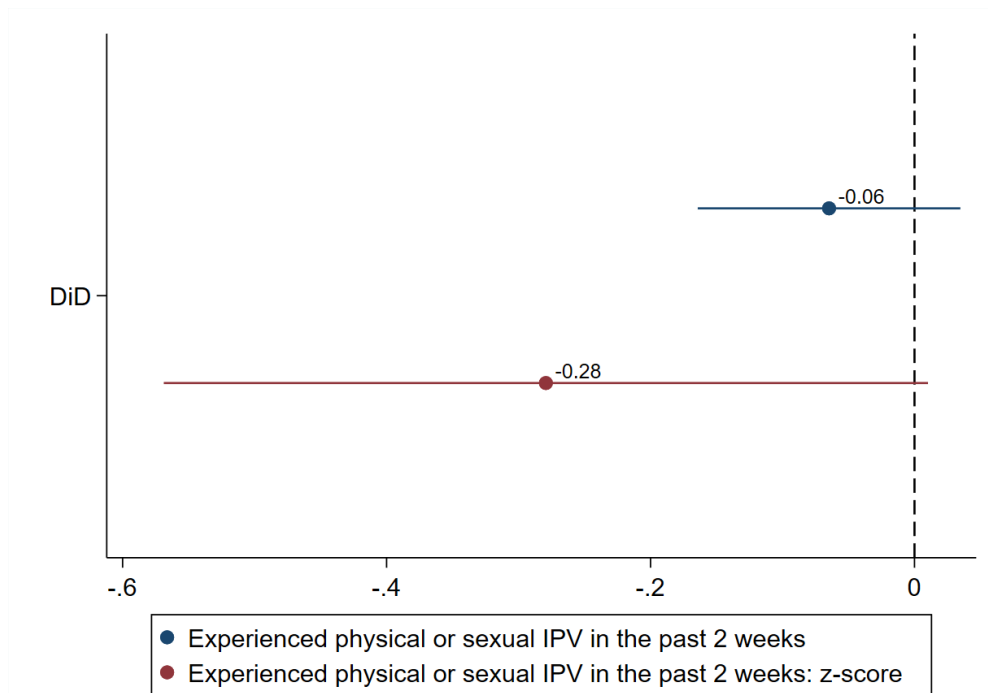
Table 3: Determinants of Intimate Partner Violence (IPV)

	(1) Physical IPV	(2) Sexual IPV	(2) Emotional IPV
Respondent age	-0.00310 (0.00674)	0.0216*** (0.00753)	-0.00166 (0.00934)
Spouse's age	0.00982* (0.00582)	-0.000484 (0.00737)	-0.0000004 (0.00972)
Months lived with spouse	-0.000282 (0.000335)	-0.000153 (0.000570)	0.000169 (0.000691)
Household size	-0.0165 (0.0239)	-0.0143 (0.0345)	-0.0238 (0.0328)
Respondent education > primary	-0.0642* (0.0364)	0.0895* (0.0500)	-0.0447 (0.0636)
Spouse education > primary	-0.0160 (0.0378)	0.0799 (0.0563)	0.00530 (0.0664)
Respondent drank alcohol (last 2 weeks)	0.130 (0.0969)	0.0939 (0.106)	0.225* (0.128)
Spouse drank alcohol (last 2 weeks)	0.0235 (0.0378)	0.0584 (0.0552)	0.133* (0.0705)
Relationship quality (z-score)	-0.0520** (0.0201)	-0.0216 (0.0310)	-0.116*** (0.0365)
Harmful spouse controlling behaviors	0.0670** (0.0257)	0.102* (0.0521)	0.0355 (0.0696)
Food expenditure (last 2 weeks, RWF)	0.000000359 (0.00000145)	0.000000310 (0.00000243)	-0.00000204 (0.00000296)
Food from own production (proportion)	0.000315 (0.000669)	-0.00280*** (0.00104)	-0.00102 (0.00152)
Respondent worked (last 2 weeks)	-0.0966** (0.0478)	0.0597 (0.150)	0.163 (0.206)
Spouse worked (last 2 weeks)	0.0529 (0.0511)	-0.0445 (0.0917)	0.153 (0.104)
Household faced income shock (last 12m)	0.0398 (0.0251)	0.0280 (0.0532)	0.0650 (0.0703)
Decisions on spouse's earnings	0.00178 (0.0385)	-0.0573 (0.0651)	-0.131 (0.0844)
Decisions on respondent's earnings	0.00757 (0.0461)	-0.0536 (0.146)	-0.136 (0.201)
Decisions on major household purchases	0.0952*** (0.0332)	-0.0567 (0.0518)	0.0427 (0.0695)
Observations	200	200	200
R-squared	0.197	0.170	0.233

Notes: We estimate an Ordinary Least Squares (OLS) regression (a linear probability model) to examine the factors that predict intimate partner violence using base-line survey data. The sample consists of married women aged 18 to 40 residing in Rwanda's Eastern Province. Robust standard errors in parentheses.

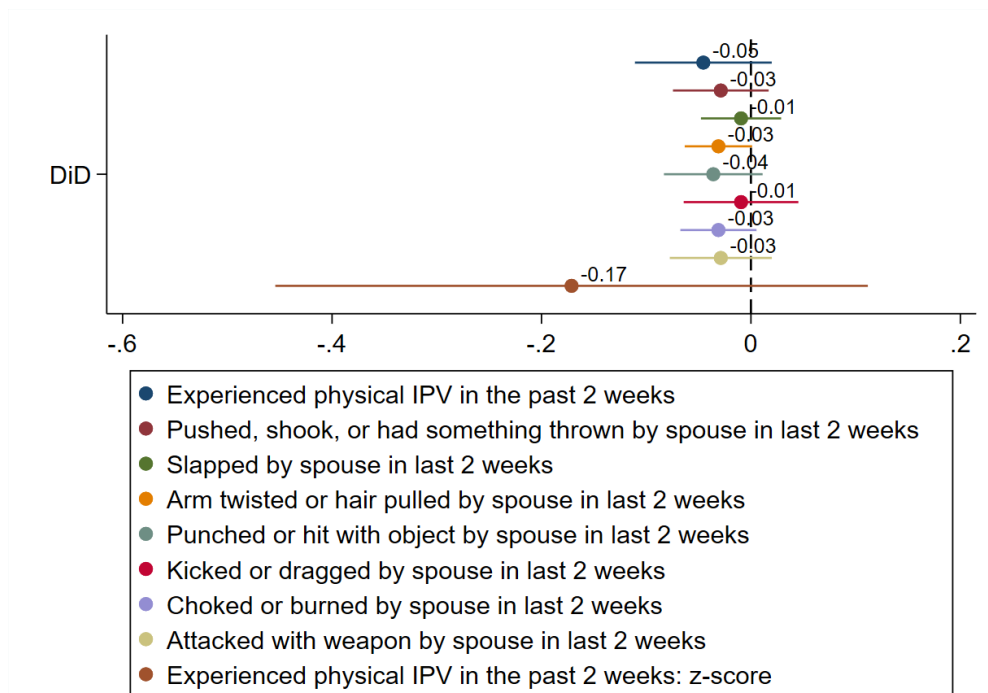
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Figure 1: *Effect of Twubakane on physical or sexual IPV*



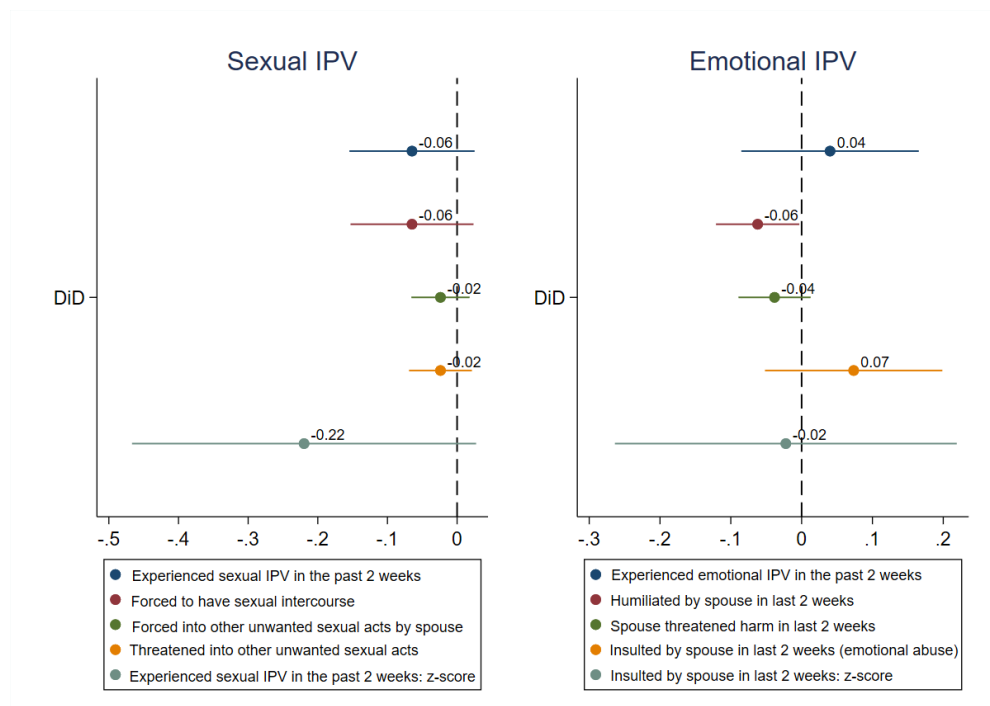
Notes: We estimate an individual fixed-effects Difference-in-Differences model of the impact of Twubakane on physical or sexual IPV. The sample consists of married women aged 18 to 40 residing in Rwanda's Eastern Province. The graph display confidence intervals at the 90 % level.

Figure 2: *Effect of Twubakane on physical IPV*



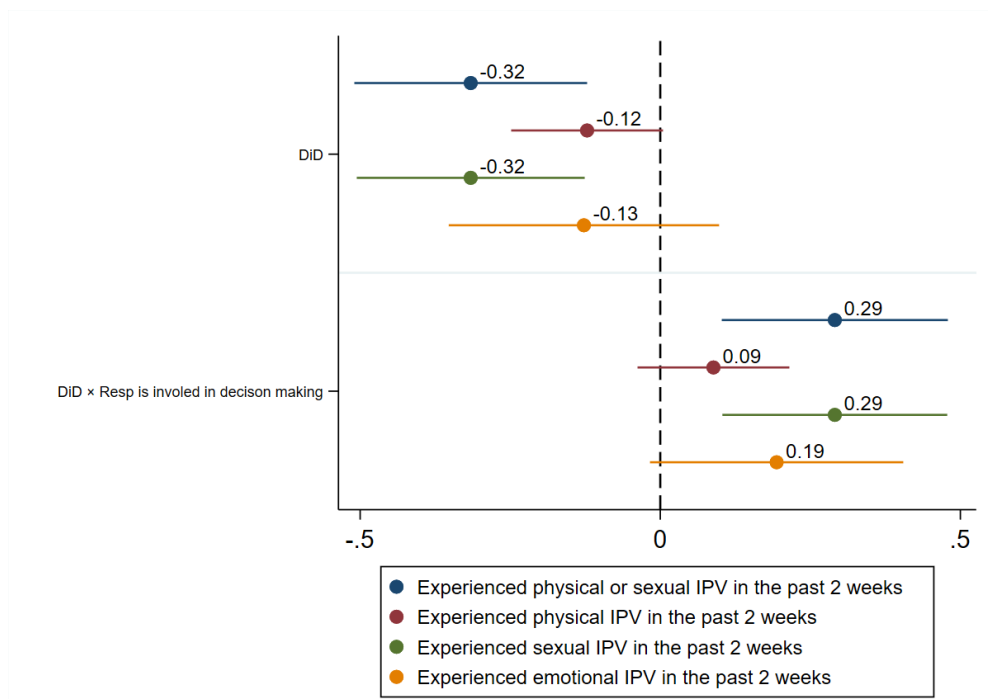
Notes: We estimate an individual fixed-effects Difference-in-Differences model of the impact of Twubakane on physical IPV. The sample consists of married women aged 18 to 40 residing in Rwanda's Eastern Province. The graph display confidence intervals at the 90 % level.

Figure 3: *Impact of Twubakane on sexual and emotional IPV*



Notes: We estimate an individual fixed-effects Difference-in-Differences model of the impact of Twubakane on sexual and emotional IPV. The sample consists of married women aged 18 to 40 residing in Rwanda's Eastern Province. The graph display confidence intervals at the 90 % level.

Figure 4: *Impact of Twubakane on IPV | Respondent is involved in household decision-making*



Notes: We estimate an individual fixed-effects Difference-in-Differences model of the impact of Twubakane on IPV, based on whether the respondent is involved in household decision-making. The sample consists of married women aged 18 to 40 residing in Rwanda's Eastern Province. The graph display confidence intervals at the 90 % level.

Table 4: Impact of Twubakane on Gender Attitudes and Financial Decision-Making

	(1) Equal say (respondent)	(2) Equal say (spouse)	(3) Involved in use of spouse's earnings	(4) Involved in use of own earnings	(5) Involved in major purchase
Post	0.250*** (0.080)	0.033 (0.120)	-0.067 (0.070)	-0.133* (0.070)	0.233*** (0.070)
Twubakane × Post	-0.020 (0.090)	0.290** (0.140)	0.146* (0.080)	0.025 (0.090)	-0.104 (0.080)
Control mean (baseline)	3.38	2.88	0.52	0.58	0.47
Control SD	0.49	0.80	0.50	0.50	0.50
Observations	399	399	399	399	399

Notes: Estimates are from an individual fixed-effects Difference-in-Differences model evaluating the impact of Twubakane on household decision-making and gender norms. Column (1) and (2) measure agreement on equal say in spending. Columns (3)–(5) measure participation in key financial decisions. The sample includes married women aged 18 to 40 residing in Rwanda's Eastern Province. Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1.

Table 5: Impact of Twubakane on Intimate Partner Relationship Quality

	(1) Relat. quality (z-score)	(2) Partner offers emot. support	(3) I give emot. sup. to my patner	(4) Partner ask for advice	(5) Partner tried to be honest	(6) Can talk to partner about inter. & opin.	(7) Respects views
Post	-0.338** (0.120)	-0.067 (0.120)	-0.133 (0.090)	0.067 (0.120)	-0.183 (0.100)	-0.117 (0.100)	-0.017 (0.110)
Twubakane × Post	0.481*** (0.140)	0.376** (0.140)	0.263** (0.110)	0.171 (0.140)	0.478*** (0.120)	0.109 (0.110)	0.218 (0.130)
Control mean (baseline)	0.17	3.03	3.23	3.00	2.83	3.12	2.70
Control SD	1.06	0.84	0.72	0.86	0.83	0.83	0.98
Observations	399	399	399	399	399	399	399

Notes: Estimates are from an individual fixed-effects Difference-in-Differences model assessing the impact of Twubakane on perceived relationship quality. The z-score in column (1) is a composite index. Other outcomes range from 1 (rarely) to 4 (often). Sample includes married women aged 18 to 40 residing in Rwanda's Eastern Province. Robust standard errors in parentheses.

Columns: (1) Relationship quality score (2) My partner gives me emotional support; (3) I give emotional support to my partner; (4) My partner asks for my advice when they have a problem; (5) My partner tries to be honest with me; (6) I can talk to my partner about my interests and opinions; (7) When we disagree, my partner tries to understand my point of view; *** p<0.01, ** p<0.05, * p<0.1.

Table 6: Impact of Twubakane on Depression Outcomes

	(1) Depression score	(2) Mild depressive	(3) Moderate depressive	(4) Moderately severe	(5) Severe depressive
Post	-0.883 (0.600)	-0.183*** (0.060)	-0.150** (0.070)	0.033 (0.050)	0.017 (0.020)
Twubakane × Post	-1.009 (0.740)	0.068 (0.070)	-0.001 (0.090)	-0.091 (0.060)	-0.017 (0.020)
Control mean (baseline)	8.55	0.85	0.40	0.07	0.00
Control SD	3.63	0.36	0.49	0.25	0.00
Observations	399	399	399	399	399

Notes: Estimates are from an individual fixed-effects Difference-in-Differences model assessing the impact of Twubakane on depression outcomes. The sample consists of married women aged 18 to 40 residing in Rwanda's Eastern Province. Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1.

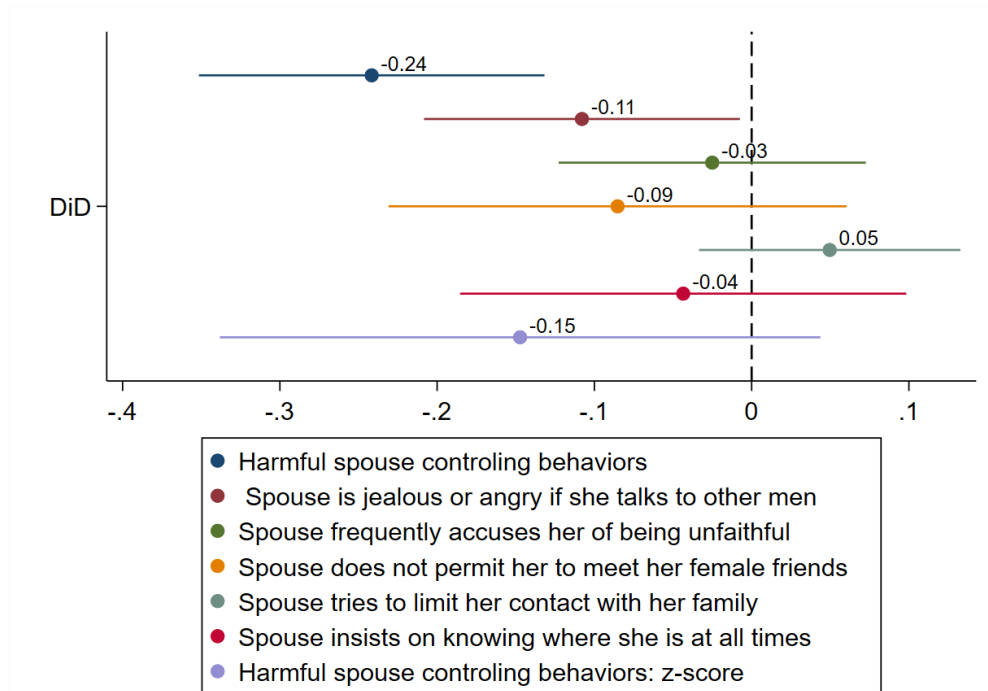
Table 7: Impact of Twubakane on Community Norms Around IPV Reporting

	(1) Discourages IPV reporting	(2) Does not help IPV victims
Post	-0.017 (0.040)	-0.117** (0.050)
Twubakane × Post	-0.012 (0.040)	0.102 (0.060)
Control mean (baseline)	0.07	0.17
Control SD	0.25	0.38
Observations	399	399

Notes: Estimates are from an individual fixed-effects Difference-in-Differences model evaluating the impact of Twubakane on community-level attitudes toward intimate partner violence (IPV). The sample consists of married women aged 18 to 40 residing in Rwanda's Eastern Province. Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1.

Figure 5: *Effect of Twubakane on harmful spouse controlling behaviors*



Notes: We estimate an individual fixed-effects Difference-in-Differences model of the impact of Twubakane on women's acceptance of domestic violence. The sample consists of married women aged 18 to 40 residing in Rwanda's Eastern Province. The graph display confidence intervals at the 90 % level.

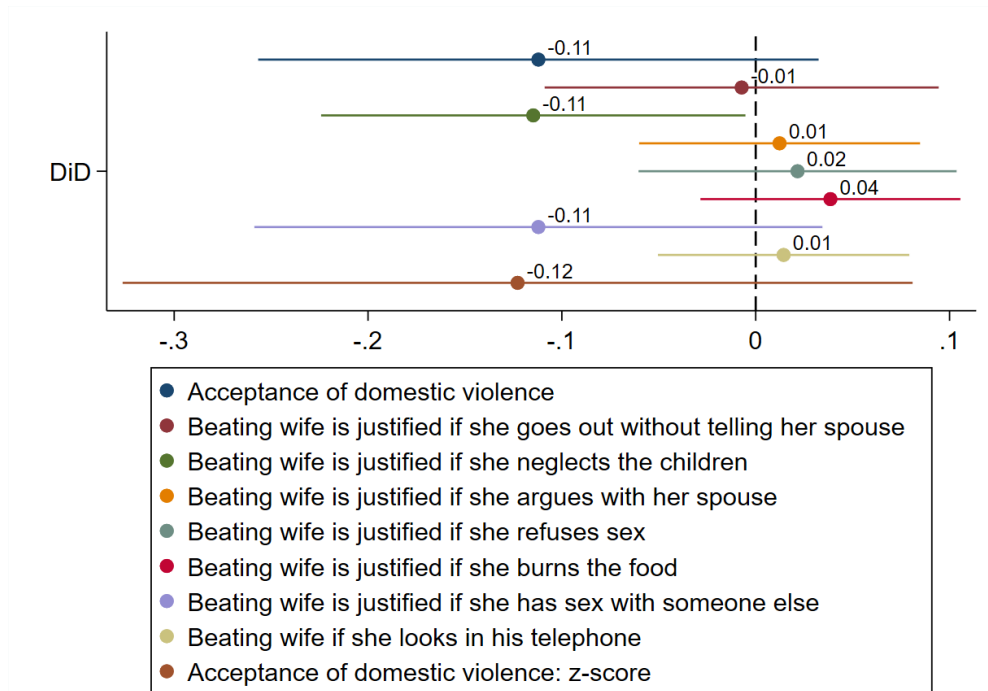
Table 8: *Impact of Twubakane on Wellbeing Outcomes*

	(1) Happiness (yesterday) (1 = low, 10 = high)	(2) Felt good last week (binary)	(3) Life satisfaction (1 = low, 10 = high)
Post	0.150 (0.360)	-0.067 (0.070)	0.633** (0.320)
Twubakane × Post	0.929** (0.450)	0.074 (0.090)	0.410 (0.400)
Control mean baseline	6.50	0.65	5.95
Control SD	2.14	0.48	2.36
Observations	399	399	399

Notes: We estimate an individual fixed-effects Difference-in-Differences model of the impact of Twubakane on wellbeing outcomes. The sample consists of married women aged 18 to 40 residing in Rwanda's Eastern Province. Robust standard errors in parentheses.

* p<0.1, ** p<0.05, *** p<0.01.

Figure 6: *Effect of Twubakane on acceptance of domestic violence*



Notes: We estimate an individual fixed-effects Difference-in-Differences model of the impact of Twubakane on women's acceptance of domestic violence. The sample consists of married women aged 18 to 40 residing in Rwanda's Eastern Province. The graph display confidence intervals at the 90 % level.

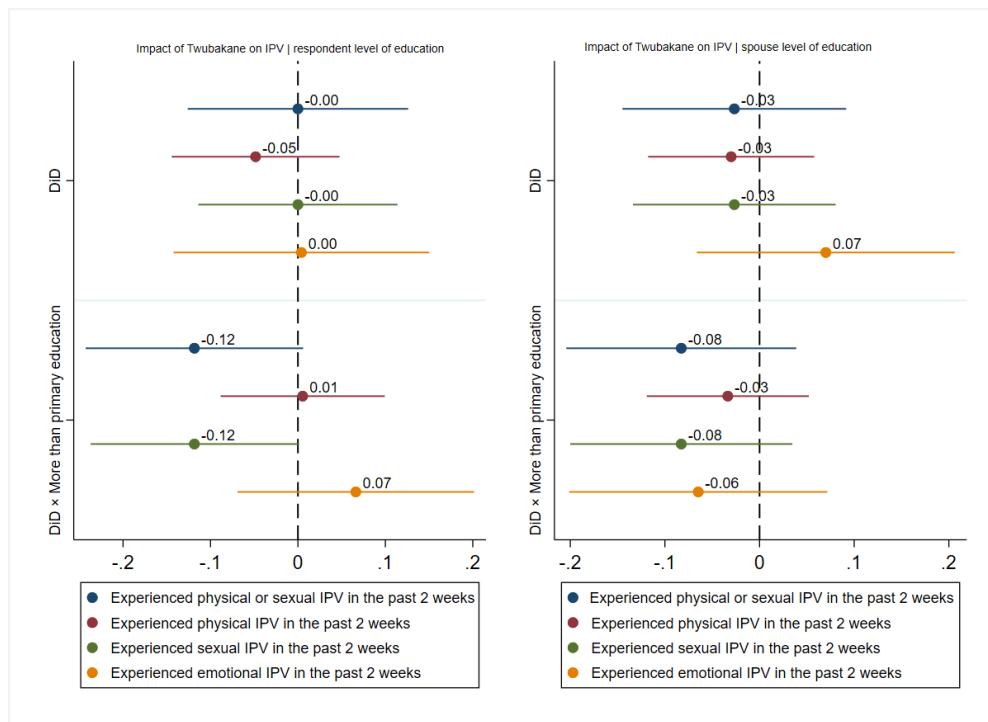
Table 9: *Impact of Twubakane on Alcohol Consumption*

	(1) Respondent drank alcohol (past 2 weeks)	(2) Spouse drank alcohol (past 2 weeks)
Post	0.033 (0.030)	-0.017 (0.050)
Twubakane × Post	-0.069* (0.040)	0.017 (0.060)
Control mean (baseline)	0.03	0.43
Control SD	0.18	0.50
Observations	399	399

Notes: Estimates are from an individual fixed-effects Difference-in-Differences model evaluating the impact of Twubakane on recent alcohol use. The sample consists of married women aged 18 to 40 residing in Rwanda's Eastern Province. Robust standard errors in parentheses.

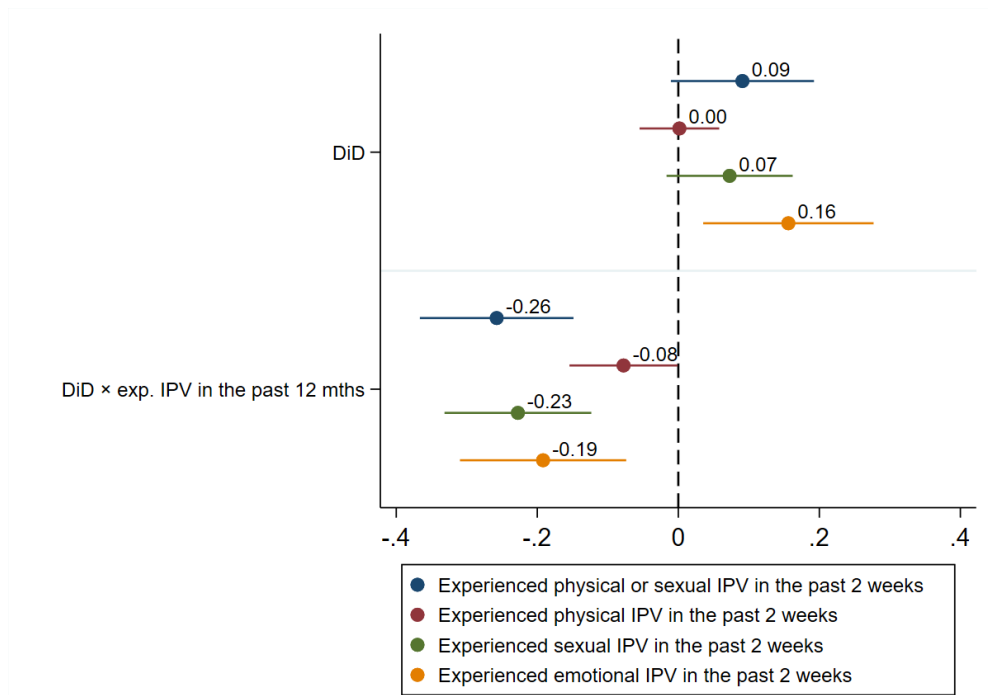
*** p<0.01, ** p<0.05, * p<0.1.

Figure 7: *Impact of Twubakane on IPV by respondent's and spouse's level of education*



Notes: We estimate an individual fixed-effects Difference-in-Differences model of the impact of Twubakane on IPV, depending on whether the respondent has an education level higher than primary school or not. The sample consists of married women aged 18 to 40 residing in Rwanda's Eastern Province. The graph display confidence intervals at the 90 % level.

Figure 8: Impact of Twubakane on IPV based on respondents' experience of IPV during the 12 months preceding the baseline survey



Notes: We estimate an individual fixed-effects Difference-in-Differences model of the impact of Twubakane on IPV, based on whether the respondent experienced domestic violence in the 12 months preceding the baseline survey. The sample consists of married women aged 18 to 40 residing in Rwanda's Eastern Province. The graph displays confidence intervals at the 90 % level.