

# Do peer solidarity groups improve women politicians’ political agency?

## Evidence from a pilot RCT in rural India

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### Abstract

Despite women’s increasing representation in politics, their political agency, once in office, is challenged by household and institutional gatekeepers alike. Female politicians are often perceived as “proxies” for male elites, particularly in settings like South Asia where gender quotas have given rise to women’s candidacy at an exceptionally large scale. In conjunction with an NGO in Maharashtra, India, we form peer groups amongst elected women politicians to provide governance training and improve female solidarity. We further test the efficacy of this intervention to an alternate treatment that engages not only women politicians but men to understand the importance of forming cross-gender solidarity towards women’s political empowerment. We present suggestive evidence that participation in peer groups improves elected women’s political agency. Women-only peer groups appear to improve elected women’s self-confidence and independence through increasing gendered solidarity, support for gender-egalitarian norms, and professional networks. In contrast, mixed-gender solidarity groups have limited impact on official’s confidence and independence, and may actually reduce gendered solidarity, support for gender-egalitarian norms, and attenuate women’s professional networks. This intervention provides the first exploratory evidence of how peer groups alter women’s political agency amongst elected officials, showing the ability of peer groups to alter agency, with divergent effects dependent on their gendered composition.

## 1 Introduction

When underrepresented groups such as women are elected to office, most prominently through quotas, their governance capacity is often blocked by a variety of actors—including

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voters, bureaucrats, and household members—who perceive them to be weak based on identity-based characteristics (Cruz and Tolentino 2019; Rachel E Brulé 2020a; Purohit 2023; Heinze, R. Brulé, and Chauchard 2024). Subsequently, and despite evidence of the efficacy of female representatives to alter the distribution of public goods and enforcement of rights in line with the interests of women and members of traditionally-excluded ethnic groups, these politicians continue to be seen as “proxies” controlled by male, dominant ethnic group candidates (John 2007; Rachel E. Brulé 2020b; Heinze, R. Brulé, and Chauchard 2024). In addition to undervaluing the efficacy of female politicians, these perceptions legitimize non-cooperation with female politicians by citizens and officials that undercut women leaders’ ability to implement policies crucial for female citizens (Afridi, Iversen, and Sharan 2017). These mis-perceptions are powerful, as they disrupt the relationship between women’s descriptive representation in office and the substantive representation of women’s interests in policy design and implementation.

Negative perceptions of women’s leadership ability often coincide with lesser experience in their jobs relative to that of male representatives. While political networks may help officials overcome knowledge gaps, women also tend to get sidelined in party and bureaucratic networks (Franceschet and Piscopo 2014; Garcia-Hernandez, Grossman, and Michelitch 2020; Purohit 2023), further constraining their governance capacity after elections. In light of these systemic hurdles, women tend to have more limited political experience (Cruz and Tolentino 2019). Despite this systemic barriers, little research to date examines sources of women’s political agency *after* they are elected to office.

There remains a glaring gap in the literature about how to improve the political agency of women politicians, defined as both their improved self-perception and their centrality in institutional decision-making processes (Heinze, R. Brulé, and Chauchard 2024). To fill this gap, we experimentally evaluate the effectiveness of one promising intervention aimed at increasing women’s political agency—the formation of peer mentorship groups amongst women representatives that seek to overcome male gatekeeping by disseminating knowledge and building mutual support among women. Women’s mutual support within peer groups may improve women’s solidarity and mutual accountability, a sense of

what Kabeer (1994) calls “power within” that enables support for more gender-equitable social norms. Through these mechanisms, peer groups may also expand women’s social and professional networks (Díaz-Martin et al. 2022).

We test this intervention in Maharashtra, India, a state in which women’s perceptions as proxies is widespread akin to the rest of the country (Heinze, R. Brulé, and Chauchard 2024). In partnership with the Resource and Support Centre for Development (RSCD), a local NGO with decades of experience in women’s political empowerment,<sup>1</sup> we create peer groups amongst elected women politicians within *gram panchayats*, or village councils. Within groups, women politicians received six information sessions about various facets of their jobs as *gram panchayat* leaders through facilitated discussions.

In contrast to interventions that solely focus on knowledge dissemination, each of our sessions sought to build solidarity amongst participants as a means to collectively address local governance problems, particularly when men within the household or in the community question women’s competence. This focus on solidarity builds on recent work which highlights the key role of women’s solidarity networks in improving political participation and economic agency (Prillaman 2021; Erica Field et al. 2016). In addition, an alternate treatment allowed male allies to attend three of the six sessions as a means to test whether their presence improved knowledge dissemination or deepened networks. We compare the impact of these two treatments—the women-only peer groups and the mixed-gender peer groups—to a placebo control group, in which women attend one informational session on RSCD’s activities. This helps advance our thus-far limited understanding of how to leverage interactions among women group members to achieve positive outcomes for individuals and communities (Díaz-Martin et al. 2022).

We find promising evidence that participation in women-only peer groups provides a pathway for improving women’s political agency in two ways: by building their

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<sup>1</sup>RSCD has been working on enabling women to become active agents in local governance since 2000 through two of its programs, Mahila Rajsatta Andolan (MRA)<sup>2</sup>. and Savitri Academy<sup>3</sup>. As part of these programs, RSCD works with over 500 elected women representatives with 5 regions of the state to build their capacity with a focus on women’s empowerment, political participation, and good governance. RSCD thus has experience in strengthening female leadership at the local level, pushing against conservative gender norms and breaking various barriers to women-driven development in elected local government.

self-confidence and by increasing their independence in conducting their core work as local elected officials. We find preliminary support for three possible mechanisms through which peer groups alter elected women officials’ agency: increasing notions of women’s solidarity and mutual accountability within the *gram panchayat* which is the central site for their work; reducing support for gender-biased norms that preclude women from political leadership and reduce their social and physical autonomy; and improving the size and utility of their political networks, particularly within the *gram panchayat*. In contrast, participation in mixed-gender peer groups may be more efficacious at building confidence in both speaking within a regular mixed-gender fora—the *masik sabha* meeting—and future electoral success, but appears less able to improve elected officials’ self-confidence in their ability to achieve their core work. In fact, mixed-gender peer groups may actually reduce gendered solidarity and networks within the *gram panchayat* and increase perceptions about the appropriateness of gender norms that preclude women from leadership in politics and society more broadly. Altogether, this suggests that peer groups may be potent drivers of changes in women officials’ political agency, but the direction of these effects likely varies based on the gendered composition of peer groups.

Our intervention is one of the first to test the effectiveness of participation in women’s peer groups—both via women-only groups and mixed-gender groups—amongst elected officials as a means to improving their political agency. Given persistent concerns about women’s status as proxy representatives for their husbands due to gender quotas for local elected officials, findings from this intervention provide one optimistic pathway to improving women representatives’ independence. In doing so, we build on several streams of literature. One, improving political agency of women remains a normative priority, but also a theoretical one to realize the expectation that women, once in office, may be able to translate descriptive representation to substantive policies that benefit women as citizens and their communities (Pitkin 2023; Dovi 2002; Lovenduski 2005; Chattopadhyay and Duflo 2004; Bhavnani 2009; Rachel E Brulé 2020a; Prillaman 2021; Purohit 2023). Two, participation in all-women peer groups has become a dominant strategy for delivering core development interventions, but their impact on participation on women’s

self-confidence and agency remains under-researched (Díaz-Martin et al. 2022). Three, while the gender gap in political participation and representation is well-documented, new research makes clear the extent of gender gaps in political agency post-elections. This necessitates the need for further work to identify pathways to improve women elected officials’ ability to represent their citizens and realize their political agendas (Heinze, R. Brulé, and Chauchard 2024).

## 2 Theory

We base our intervention on the effective model of peer-learning, which has boosted outcomes in a wide array of economic areas, including agriculture (Foster and Rosenzweig 1995), education (Papay et al. 2020), and firms (Cai and Szeidl 2018). Despite the strength and consistency of these findings, these models have yet to be tested on politicians. To our knowledge, the only other project that uses peer groups to improve governance outcomes is currently underway in Bihar, India, amongst village-level politicians (Bamezai et al. n.d.), though they do not focus on gender as a source of variation. In contrast, we theorize that women-only groups provide a key tool for enhancing the political agency of one widely-excluded group: women. Indeed, women peer groups have been a central strategy motivating a range of interventions that have sought to close the gender gap in a related domain: economic entrepreneurship.

Women’s groups exist for differing purposes, as highlighted by Díaz-Martin et al. (2022). On the one hand, such groups may be formed merely to vertically disseminate information to women who may be lacking crucial information about their rights and duties or to address structural inequalities between women and men. On the other hand, women’s groups may instead harness horizontal ties amongst peers. Interventions find that incorporating peer mentoring significantly improves women’s borrowing, business development strategies, and household income (McKenzie and Woodruff 2013; Erica Field et al. 2016). Studies in politics similarly find that incorporating women’s mentorship or peer learning can improve women citizens’ political participation (Bernhard, Shames,

and Teele 2021; Prillaman 2021). Based on this array of work, we first hypothesize that women-only peer groups that incorporate both knowledge dissemination with women’s sense of female solidarity will improve women’s political agency. By political agency, we refer to their improved self-perception as political agents and their centrality in institutional decision-making structures (Heinze, R. Brulé, and Chauchard 2024).

*H1: Women-only peer groups will improve female elected officials’ political agency.*

For women to rise in politics, however, bargaining with existing political gatekeepers—whether they be men within the household or men in political positions—is key (Bernhard et al. 2020, Brulé 2020). While members of women-only groups may be able to share strategies to overcome these gatekeepers, engaging men in the conversation may be more effective in assisting women to gain political traction. Given the effectiveness of women’s groups in enabling women to negotiate intra-household and institutional constraints to economic entrepreneurship, engaging women with male peers may improve both structural and intra-household constraints that are widely hypothesized to limit women’s political “entrepreneurship” and agency (Cheema et al. 2022; Franceschet and Piscopo 2014; Garcia-Hernandez, Grossman, and Michelitch 2020). At the same time, men’s inclusion in peer learning groups may decrease women’s sense of solidarity amongst each other, thereby reducing the effort they put into problem solving with other women group members. Additionally, men’s addition to peer groups may reinforce patriarchal discussion norms and further exclude women’s participation in groups. Indeed, recent work suggests that the number of men in groups can change the relative degree of importance afforded to women’s ideas during policy discussions (Clayton, O’Brien, and Piscopo 2019; Heinze, R. Brulé, and Chauchard 2024; Clayton, Dulani, et al. 2024). We therefore consider competing hypotheses regarding the effectiveness of mixed-gender groups.

*H2a: Relative to women-only groups, mixed-gender groups will improve women’s political agency.*

*H2b: Relative to women-only groups, mixed-gender groups will not improve women’s political agency.*

Overall, engaging women in peer-learning groups may yield three outcomes. One,

women’s groups may create a space for information dissemination, both at the individual and group levels. In other words, women may learn information on how to govern, and in knowing that other female peers are receiving the same information, they may be motivated to take on additional political responsibilities. Two, women’s groups may create a sense of solidarity through increased interactions, deliberations, and shared experiences among women. This may provide new resources for tackling existing gendered constraints to governance faced by women elected officials. Three, engaging men in women’s groups may expand women’s ability to learn about how men operate with external stakeholders, and assist them in jointly overcoming institutional gatekeepers. At the same time, men may reduce women’s sense of solidarity and take over discussions, thereby limiting women’s individual and collective sense of political agency.

### 3 Context

We test our theory in the state of Maharashtra, India, a state that operates within India’s political quota system that has mandated women-reserved seats (along with caste-reserved seats) in local elections since 1993.<sup>4</sup> Through quotas, at least half of village council president (sarpanch) seats and at least half of the village council member (ward-panch) seats are randomly selected for women’s election. Relative to other states in India, Maharashtra offers a more progressive setting for women in politics; existing research has highlighted the role of political movements in electing all-women village councils or panchayats (Omvedt 1990; Omvedt 2014), numerous women candidates in urban centers (Bhavnani 2009), and women’s prominent role in the state party, Shiv Sena (Bedi 2016).

Within Maharashtra, we situate our study in Amravati district in consultation with our research partner, Resource and Support Centre for Development (RSCD). RSCD has been active in Amravati and other parts of Maharashtra for the last two decades, and has played a prominent role in women’s political mobilization. Since 2000, they have held two programs—the Mahila Rajsatta Andolan (MRA) and Savitri Academy—which

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<sup>4</sup>Maharashtra initially legislated women’s quotas for a minimum of one third of seats; these were expanded to mandate half of seats be reserved for women in 2011.

have sought to improve decentralization by providing governance and gender-sensitivity trainings to grassroots leaders, including those elected to the *gram panchayat*. This history allowed us to partner with RSCD as our knowledge partner and adapt their training to the goals of our study.

## 4 Research Design

To test our theory, we create women’s peer groups and test their effectiveness using a pilot Randomized Control Trial (RCT). Because the design constitutes a pilot, the treatments and control are under-powered. We study a single, bundled intervention to identify the impact of a maximally-effective treatment. The treatment consists of two arms: (1) women-only groups, through which members jointly receive information AND are encouraged to increase levels of “female solidarity” through substantive peer interactions and exercises within each meeting, and (2) the staggered introduction of mixed-gender groups with the same substance. These treatment allows us to test whether women-only groups improve political agency via both information dissemination and female solidarity, and whether engagement of men assists or hinders women’s ability to gain political agency.

Given social norms around women’s extra-household participation in India—even amongst politicians—we constructed the recruitment and assignment strategies carefully to limit any backlash women may face for participating in the intervention. These social norms also create the possible scenario that compliance to treatment is low. To recruit participants and assign them to treatment and control groups, we therefore utilized a method akin to one described by Broockman, Kalla, and Sekhon (2017) to limit backlash and increase the possibility of compliance.

We first conducted a baseline survey in 30 gram panchayats or village councils within our study area in consultation with our partner, RSCD. The baseline survey was conducted amongst each elected women village council member and sarpanch; 129 women village council members took the survey, with an average of 4.3 women elected officials per gram panchayat completing the survey. To ensure compliance in the survey and to

limit interference from male household members, we also asked each women representative to identify the male household member who most supported them in their duties; 82% identified their husband, 11% identified their son, 1% identified their father, and 6% identified their uncle/brother/cousin. These male members were invited to take the survey.

At the end of the baseline survey, we asked both the female politician and their male relative if they were interested in the woman joining a peer group for elected representatives, with a commitment for 3 months. In order to assign elected representatives to control or treatment groups, we then subset our population to gram panchayats where *at least* the sarpanch *and* three other female members—along with their male relatives—indicated willingness to join groups. We did this to minimize the possibility of intra-family gender backlash. This constituted our new universe of potential participants, and consisted of 24 gram panchayats. We then used a complete randomization mechanism<sup>5</sup> to assign 8 gram panchayats to the control condition, the women-only peer group treatment, and the mixed-gender peer group treatment.

Within the *control condition*, we invited female gram panchayat members to attend one information session in their gram panchayat to learn about RSCD’s activities. The information session included the organization’s work on women’s empowerment, and it served as a way to connect members with each other. At the end of the information session, members were encouraged to exchange contact information and form a Whatsapp group to communicate. This accordingly provides a high bar for our control comparison, enabling us to identify the marginal impact of peer mentoring and solidarity compared to the absence of explicit mentoring and solidarity-building activities, where solidarity groups with connective infrastructure (via encouragement to form WhatsApp groups) already exist.

We compare the control group to a *female-only treatment group*. The groups consisted of 4-6 female politicians from gram panchayats, with a total of 38 participants across 8 villages. Each group met in person for 6 weeks in their gram panchayat be-

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<sup>5</sup>Using the built-in `complete_ra` function in the `randomizr` package in R.

tween December 2023 and February 2024 for a training session that lasted at least 1.5 hours. Each session was facilitated by an RSCD-trained staff member, who was strictly instructed to facilitate dialogue when possible rather than “train” in a top-down manner. The facilitated nature of the meeting ensured that each session across gram panchayats maintained a consistent set of talking points, with a focus on solving governance challenges in members’ gram panchayats while building female solidarity.<sup>6</sup> Similar to the control group, women in the women-only peer group were encouraged to form WhatsApp groups to communicate in between training sessions.

The mixed gender peer group treatment consisted of the same facilitated training sessions and followed the same timeline as the women-only peer group treatment. Given the risk that inviting household or institutional male gatekeepers to these meetings could solicit backlash against women, we asked women to identify 2-3 male allies who could support them in their roles in the first three sessions of 6-session training intervention. We then invited male allies to attend the last three sessions of the intervention, though the content of these sessions mirrored the women-only peer group intervention. The summary of our treatments is available in Table 1.

## 5 Results

We evaluate the intervention’s impact on measures of political agency, solidarity, gender norms as proxied by attitudes towards gendered roles and violence, and networks.

### 5.1 Main Results

We first evaluate the impact of gendered solidarity groups on our main outcome of interest: women’s political agency. We consider three dimensions of political agency: subjective,

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<sup>6</sup>Each session focused on one of the following topics: (1) Defining leadership and creating a self-development plan for elected gram panchayat positions; (2) Gender norms in the family and bargaining with male gatekeepers to conduct gram panchayat work; (3) Understanding one’s constituency and constituent needs; (4) Functions of an elected gram panchayat member and key institutional players to support the realization of these functions; (5) Understanding the village council and the impact of mobility restrictions on women; (6) Continuing peer learning beyond the training. Between sessions (4) and (5), women also travelled to the sub-district (block) office to meet with a sub-district level bureaucrat, to build professional relationships and networks.

**Table 1:** Research Design

| Arm                                | Summary                                                                                                                                                                                                                                                                                                        | Sample Size                                                     |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <i>Women-Only Treatment (T1)</i>   | (1) 6 group meetings focused on information dissemination on gram panchayat governance and forming solidarity to resolve governance challenges; (2) Encouraged to form Whatsapp group                                                                                                                          | n = 8 groups (gram panchayats), 38 individuals                  |
| <i>Mixed Gender Treatment (T2)</i> | (1) 6 group meetings focused on information dissemination on gram panchayat governance and forming solidarity to resolve governance challenges; (2) First 3 meetings were restricted to women members, last 3 meetings included male allies identified by women members; (3) Encouraged to form Whatsapp group | n = 8 groups (gram panchayats), 37 individuals & 18 male allies |
| <i>Control Group</i>               | (1) 1 group meeting for women gram panchayat members focused on RSCD's work; (2) Encouraged to form Whatsapp group                                                                                                                                                                                             | n = 8 groups (gram panchayats), 41 individuals                  |

self-perceptions; more objective reported behaviors; and behavioral intentions regarding political engagement in the future.

Throughout our analysis, given the small-scale nature of our pilot intervention, we anticipate that statistical power constraints make our ability to identify statistically significant relationships limited at best. As a result, our main interest is in identifying the direction of relationships that are large enough to be plausibly distinguishable from statistical noise. Despite the low sample sizes, administrative records from our project implementation process show high take-up of our treatments. In particular, every peer mentoring meeting had approximately 80% attendance.

### 5.1.1 Impact of all-women solidarity groups on political agency (H1)

If H1 is correct, we should see an improvement in women's political agency amongst the elected women officials who are members of women-only peer mentoring groups. Table 2 investigates whether or not women-only groups indeed improves elected women official's political agency along each of the three relevant dimensions noted above: self-perceptions,

reported behaviors, and behavioral intentions. We discuss each in turn.

To measure self-perceptions of political agency, we begin by asking women elected officials to assess the statement, “I feel confident about my abilities to be an *elected official* [where we place the ‘*elected official*’ with the relevant elected position]. Women assess their confidence on a five-point scale, with one indicating they strongly disagree, and five indicating they strongly agree. Notably, we find a substantial, positive relationship between exposure to women-only groups and confidence in one’s abilities. The coefficient of 0.286 is the equivalent of moving the average respondent from ‘Agree’ to just below ‘Strongly Agree’ (from 4.143 to 4.429 on our 5-point Likert scale; Table 2, Row 1, Column 1). We observe positive, albeit weaker relationships between exposure to women-only groups and self-perceived ability to achieve the goals one set, and the ability to overcome challenges (Table 2, Row 1, Columns 2-3).<sup>7</sup>

We identify political agency more objectively through elected official’s reports about three sets of behaviors: contact by citizens, the proportion of decisions in the local government council (*gram panchayat* or *GP*) work they take independently, and whether or not they speak during the monthly *masik sabha* meeting to allocate budgets and implement projects for local development. Exposure to all-women solidarity groups does not alter reported levels of direct citizen contact or the likelihood that a given elected woman official speaks during the monthly *masik sabha* meeting.<sup>8</sup>

However, we do see exposure to all-women solidarity groups substantially improves the proportion of decisions that women elected officials report taking related to their *gram panchayat* work. Specifically, when asked: “What proportion of the decisions related to your work of the *gram panchayat* do you take, where 0 indicates none and 100 indicates

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<sup>7</sup>Ability to achieve goals set is based on individual responses to the question: “I can usually achieve the goals I’ve set for myself as an *elected official* [where we place the ‘*elected official*’ with the relevant elected position]. Respondents use the same 5-point scale described to assess self-confidence. Ability to overcome challenges is based on respondent assessment of the statement: “I can usually overcome the challenges I face as an *elected official* [where we place the ‘*elected official*’ with the relevant elected position]. The same 5-point scale used to assess self-confidence applies here.

<sup>8</sup>We measure the presence (versus absence) of direct citizen contact based on the proportion of respondents who respond to the question: “Who in your household is most likely to come into contact with citizens to solve problems they have related to the *gram panchayat*? by noting that the official herself is the person whom citizens contact. We measure the speaking in the *masik sabha* as affirmative if the respondent answers the question “When the *masik sabha* takes place, who typically speaks during the meeting?” by answering that she herself speaks.

all the decisions are made by you” we observe the proportion of decisions women officials report taking rising by over 20 percent. This change is notable, as it moves the average proportion of decisions women officials report they take from just under half (48.3%) to nearly two thirds (60.7%; Table 2, Row 2, Column 2).

Finally, might exposure to all-women solidarity groups improve women officials’ expected future levels of political engagement and agency? To assess this, we consider self-reported willingness to contest future elections, provide one’s own proposed budget to the apex development official of relevance: the Block Development Official (BDO), and their willingness to consider resigning.<sup>9</sup> Here, we cannot distinguish the impact of exposure to all-women solidarity groups from zero for any measure of behavioral intentions.

Overall, we find limited positive impact of exposure to all-women’s solidarity groups on the political agency of women elected officials. While we do not observe improvements in anticipated future political agency, we do see substantial improvements in two domains: self-perceived confidence in officials’ ability to carry out their core responsibilities to the village or *gram panchayat*, and the proportion of decisions they report taking independently in their *gram panchayat* work. Given that these are both crucial aspects of governance, we consider these suggestive positive results to be promising regarding the capacity of all-women solidarity groups to advance elected women officials’ ability to perform their core governance work.

### 5.1.2 Impact of mixed-gender solidarity groups on political agency (H2)

How effective are mixed gender groups in improving the political agency of women elected officials? Given limited, conflicting findings of research to date on mixed gender solidarity groups, we consider two competing hypotheses: relative to women-only solidarity groups, mixed gender groups may improve women’s political agency (H2a) or, due to the com-

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<sup>9</sup>We assess willingness to contest elections as a binary indicator, which takes the value of one if an official responds affirmatively to the question: “Do you plan on running for a position in the *gram panchayat* in the future?” We assess an official’s willingness to share her budget with the BDO if she responds to the question: “If we were to give the paper you just filled out *or* the paper your relative filled out for the budget exercise to the BDO, whose paper should we give?” by noting “Mine.” Finally, we assess binary willingness to consider resigning based on response to the question: “Have you ever considered resigning from your elected position?”

peting impact of agency-enhancing and -constraining features of mixed-gender groups, there may be no net impact on the political agency of women elected officials (H2b).

Table 3 assesses the impact of exposure to mixed-gender solidarity groups relative to women-only solidarity groups. Table 8 in Appendix B assess mixed-gender solidarity groups relative to the control, absent explicit solidarity-building within peer groups.

While the effects of mixed-gender solidarity groups generally move in the same direction as the impact of women-only solidarity groups, we observe two main distinctions between these solidarity groups. We will begin by discussing these distinctions and then move to discuss the common features of solidarity groups.

First, whereas women-only solidarity groups substantially improve self-confidence by women officials in their abilities as elected officials, we cannot distinguish the impact of mixed-gender solidarity groups on elected officials' confidence from zero (Table 8, Row 1, Column 1). Thus, the differential effect of exposure to mixed-gender groups relative to women-only groups is to *reduce* the confidence of women elected officials in their abilities (Table 3, Row 1, Column 1). These findings suggest that women elected officials do not glean the same benefits in affirming and deepening their self-confidence in mixed-gender groups as they do in women-only solidarity groups.

Second, we observe that mixed-gender solidarity groups substantially improve women elected officials' confidence in two alternative domains: willingness to contest elections in the future and willingness to speak during the monthly *masik sabha*. Specifically, women officials are 15.5 percentage points more likely to say they plan on running for a position in the *gram panchayat* after exposure to mixed-gender solidarity groups than they are in the control group (Table 8, Row 3, Column 1). This is an improvement of 25% from the baseline willingness to contest future elections (62.9%). This effect is also markedly larger than the impact of exposure to women-only solidarity groups on willingness to contest future elections (associated with a 4.6 percentage point improvement, Table 2, Row 3, Column 1; see also Table 3, Row 3, Column 1). In addition, officials are substantially more likely to report that they speak during the monthly *masik sabha* meeting where core governance matters such as village development budgets are decided.

Exposure to mixed-gender solidarity groups nearly triples the baseline likelihood that women officials report speaking during the *masik sabha*, from 5.6% to 15.5% (Table 8, Row 2, Column 3). In comparison, exposure to women-only solidarity groups does not markedly shift the likelihood of women officials speaking in this meeting.

The comparison between mixed-gender and women-only solidarity groups suggests that while women-only solidarity groups may be more effective tools for promoting self-confidence in women officials' ability to perform current electoral duties, mixed-gender solidarity groups may be more efficacious at building confidence in both speaking within a regular mixed-gender fora—the *masik sabha* meeting—and future electoral success.

Finally, when considering the common features of solidarity groups, it is helpful to examine the impact of solidarity groups altogether. As Table 4 shows, exposure to solidarity groups in general is associated with substantial improvements in self-confidence and self-perceived ability to overcome challenges (Row 1, Columns 1 and 3 respectively). Solidarity groups are also associated with increases in the reported proportion of decisions that women officials take in their *gram panchayat* work and their speaking in monthly *masik sabha* meetings (Table 4, Row 2, Columns 2-3). Overall, these findings suggest that solidarity groups have the potential to substantially shift perceived political agency as well as the concrete engagement of women elected officials in the core decision-making processes of local governance. Given the stark gender gaps that exist in political agency across contemporary rural India, solidarity groups bear real promise as tools for closing these gaps and making governance more representative of typically-excluded genders (women) (Heinze, R. Brulé, and Chauchard [2024](#); Purohit [2023](#); Rachel E Brulé [2020a](#)).

**Table 2:** T1’s impact on political agency

|                                                                   |                                            |                                                   |                                |
|-------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------|--------------------------------|
| <i>Self-perceptions: As an elected official, I ...</i>            |                                            |                                                   |                                |
|                                                                   | Am confident in my abilities               | Can achieve goals I set                           | Can overcome challenges        |
| (Intercept)                                                       | 4.143<br>(0.034)                           | 4.088<br>(0.095)                                  | 4.057<br>(0.054)               |
| T1                                                                | 0.286<br>(0.097)                           | 0.156<br>(0.141)                                  | 0.157<br>(0.134)               |
| Num.Obs.                                                          | 77                                         | 75                                                | 77                             |
| R2                                                                | 0.055                                      | 0.011                                             | 0.013                          |
| <i>Reported behaviors: As an elected official ...</i>             |                                            |                                                   |                                |
|                                                                   | Citizens contact me when they have problem | I take this proportion of decisions in my GP work | I speak during the masik sabha |
| (Intercept)                                                       | 0.500<br>(0.100)                           | 0.483<br>(0.052)                                  | 0.056<br>(0.056)               |
| T1                                                                | 0.105<br>(0.125)                           | 0.124<br>(0.082)                                  | 0.084<br>(0.086)               |
| Num.Obs.                                                          | 79                                         | 79                                                | 79                             |
| R2                                                                | 0.011                                      | 0.044                                             | 0.019                          |
| <i>Behavioral intentions: As an elected official, I would ...</i> |                                            |                                                   |                                |
|                                                                   | Contest elections in the future            | Give my proposed budget to the BDO                | Consider resigning             |
| (Intercept)                                                       | 0.629<br>(0.052)                           | 0.571<br>(0.087)                                  | 0.167<br>(0.069)               |
| T1                                                                | 0.046<br>(0.096)                           | -0.024<br>(0.124)                                 | -0.074<br>(0.083)              |
| Num.Obs.                                                          | 78                                         | 77                                                | 79                             |
| R2                                                                | 0.002                                      | 0.001                                             | 0.012                          |

Note: This table presents coefficients and standard errors of regressions of treatment on political agency outcomes. Robust standard errors clustered at the GP level. Controls not included. No  $p$ -values are reported as analyses are exploratory and suggestive due to underpowered pilot study.

## 5.2 Potential mechanisms

We consider three potential mechanisms through which solidarity groups may affect the political agency of women elected officials via shifting (1) gendered understandings of solidarity and mutual accountability with other women elected officials; (2) attitudes toward broader gendered roles and violence, as measures of what Kabeer (1994) calls “power within” that increases support for more gender-equitable social norms; and/or (3) expanding women’s political and social networks (Díaz-Martin et al. 2022).

**Table 3:** T2's impact on political agency, relative to T1

|                                                                   |                                            |                                                   |                                |
|-------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------|--------------------------------|
| <i>Self-perceptions: As an elected official, I ...</i>            |                                            |                                                   |                                |
|                                                                   | Am confident in my abilities               | Can achieve goals I set                           | Can overcome challenges        |
| (Intercept)                                                       | 4.429<br>(0.091)                           | 4.244<br>(0.104)                                  | 4.214<br>(0.123)               |
| T2                                                                | -0.192<br>(0.190)                          | 0.072<br>(0.183)                                  | 0.023<br>(0.183)               |
| Num.Obs.                                                          | 80                                         | 79                                                | 80                             |
| R2                                                                | 0.028                                      | 0.003                                             | 0.000                          |
| <i>Reported behaviors: As an elected official ...</i>             |                                            |                                                   |                                |
|                                                                   | Citizens contact me when they have problem | I take this proportion of decisions in my GP work | I speak during the masik sabha |
| (Intercept)                                                       | 0.605<br>(0.075)                           | 0.607<br>(0.064)                                  | 0.140<br>(0.065)               |
| T2                                                                | 0.027<br>(0.117)                           | 0.019<br>(0.112)                                  | 0.071<br>(0.108)               |
| Num.Obs.                                                          | 81                                         | 81                                                | 81                             |
| R2                                                                | 0.001                                      | 0.001                                             | 0.009                          |
| <i>Behavioral intentions: As an elected official, I would ...</i> |                                            |                                                   |                                |
|                                                                   | Contest elections in the future            | Give my proposed budget to the BDO                | Consider resigning             |
| (Intercept)                                                       | 0.674<br>(0.081)                           | 0.548<br>(0.088)                                  | 0.093<br>(0.045)               |
| T2                                                                | 0.109<br>(0.105)                           | -0.021<br>(0.115)                                 | 0.015<br>(0.072)               |
| Num.Obs.                                                          | 80                                         | 80                                                | 80                             |
| R2                                                                | 0.015                                      | 0.000                                             | 0.001                          |

Note: This table presents coefficients and standard errors of regressions of treatment on political agency outcomes. Robust standard errors clustered at the GP level. Controls not included. No  $p$ -values are reported as analyses are exploratory and suggestive due to underpowered pilot study.

### 5.2.1 Mechanism 1: Gendered Solidarity

One pathway through which peer groups may improve the political agency of women elected officials is through their ability to catalyze gendered solidarity. In particular, high-frequency peer group meetings may foster mutual accountability among women group members, which enables women as elected officials to access the knowledge and support of other women elected officials to overcome challenges they face in their daily work. In-

**Table 4:** T1/T2’s impact on political agency, relative to Control

|                                                                   |                                            |                                                   |                                |
|-------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------|--------------------------------|
| <i>Self-perceptions: As an elected official, I ...</i>            |                                            |                                                   |                                |
|                                                                   | Am confident in my abilities               | Can achieve goals I set                           | Can overcome challenges        |
| (Intercept)                                                       | 4.143<br>(0.034)                           | 4.088<br>(0.095)                                  | 4.057<br>(0.054)               |
| T1/T2                                                             | 0.195<br>(0.099)                           | 0.190<br>(0.129)                                  | 0.168<br>(0.103)               |
| Num.Obs.                                                          | 115                                        | 113                                               | 115                            |
| R2                                                                | 0.022                                      | 0.017                                             | 0.014                          |
| <i>Reported behaviors: As an elected official ...</i>             |                                            |                                                   |                                |
|                                                                   | Citizens contact me when they have problem | I take this proportion of decisions in my GP work | I speak during the masik sabha |
| (Intercept)                                                       | 0.500<br>(0.100)                           | 0.483<br>(0.052)                                  | 0.056<br>(0.056)               |
| T1/T2                                                             | 0.117<br>(0.115)                           | 0.133<br>(0.074)                                  | 0.117<br>(0.076)               |
| Num.Obs.                                                          | 117                                        | 117                                               | 117                            |
| R2                                                                | 0.012                                      | 0.042                                             | 0.025                          |
| <i>Behavioral intentions: As an elected official, I would ...</i> |                                            |                                                   |                                |
|                                                                   | Contest elections in the future            | Give my proposed budget to the BDO                | Consider resigning             |
| (Intercept)                                                       | 0.629<br>(0.052)                           | 0.571<br>(0.087)                                  | 0.167<br>(0.069)               |
| T1/T2                                                             | 0.096<br>(0.074)                           | -0.034<br>(0.104)                                 | -0.067<br>(0.077)              |
| Num.Obs.                                                          | 115                                        | 115                                               | 116                            |
| R2                                                                | 0.009                                      | 0.001                                             | 0.009                          |

Note: This table presents coefficients and standard errors of regressions of treatment on political agency outcomes. Robust standard errors clustered at the GP level. Controls not included. No  $p$ -values are reported as analyses are exploratory and suggestive due to underpowered pilot study.

deed, a study of group micro-credit provision in Mongolia find that receiving micro-credit in groups (versus individually) increases mutual accountability amongst group members (Attanasio et al. 2015). Studies of microfinance groups in India find that increasing the frequency of group meetings (from monthly to weekly) increases the strength of relationships among clients—one year after the intervention—who see each other outside of group meetings 37 percent more often compared to those with monthly meetings and are more willing to engage in risk sharing with other group members (Feigenberg, E. Field, and

Pande 2013). Additional research on microfinance groups in India finds that these groups increase political engagement by women members through improving particular measures of mutual accountability: gender-based coordination and mobilization (Prillaman 2021).

We study the impact of our intervention on gendered solidarity and mutual accountability through five distinct measures: an index of women’s solidarity;<sup>10</sup> perceptions of male dominance within the elected village council or *gram panchayat*;<sup>11</sup> perceived ease of discussing “*gram panchayat* matters” with women relative to men officials;<sup>12</sup> willingness to record qualitative advice for other women officials;<sup>13</sup> and a feeling thermometer regarding “how [the official] feels toward other women in this elected *gram panchayat*.”<sup>14</sup>

We observe a positive coefficient on the female solidarity index across both treatments, studied separately and jointly, but we cannot distinguish the magnitude of this effect from zero (Table 5, Column 1). In contrast, we see diverging impacts of each treatment on feelings of male dominance, measured as the perceived need to defer to male *gram panchayat* officials during discussions. Whereas exposure to all-women peer groups is associated with a slight reduction in perceived needs to defer to male officials, exposure to mixed-gender groups slightly *increases* a perceived need by women elected officials to defer to male officials (Table 2, Column 2, Row 1 versus 2).

We note similar divergences for the other three measures of gendered solidarity: whereas exposure to all-women peer groups increases women officials’ perceived ease of discussing “*gram panchayat* measures” with other women officials, willingness to record

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<sup>10</sup>The women’s solidarity index is an average of responses across the following seven questions, each of which is measured on a 5-point scale where 1 indicates ‘completely disagree’ and 5 indicates ‘completely agree’: (1) I trust other women in my *gram panchayat*; (2) the opinions of other women in this *gram panchayat* matter a great deal to me; (3) I feel a sense of fraternity with other women in this *gram panchayat*; (4) I feel that the women in this *gram panchayat* will help me if I need their help; (5) I feel responsible to ensure that the goals of women in this *gram panchayat* are met; (6) In some ways, I view the causes of other women in this *gram panchayat* as my causes, too; and (7) the issues concerning marginalized women should concern all of us.

<sup>11</sup>This question asks respondents: “Please tell me to what extent you agree or disagree with this statement, where 1 is completely disagree and 5 is completely agree: I feel the need to defer to one man member of the *gram panchayat* during discussions.”

<sup>12</sup>This question asks the respondent to respond to the question: “If I need to discuss *gram panchayat* matters, it is easier to talk to other women in the *gram panchayat* than men.” Respondents are asked to respond using a 5-point scale where 1 indicates ‘completely disagree’ and 5 indicates ‘completely agree’.

<sup>13</sup>This question asks respondents: “Would you be willing to record a brief piece of advice for us to share with her [another elected official]?”

<sup>14</sup>The feeling thermometer asks respondents: “On a scale of 1 to 100, where 1 is not very favorable and 100 is extremely favorable, how do you feel about women in this elected *gram panchayat*?”

advice for other women officials, and substantially increases their feelings toward other elected women officials—by 21.6 percentage points—this is not the case for exposure to mixed-gender peer groups (Table 5, Columns 3-5). Indeed, exposure to mixed-gender groups is associated with slight reductions in willingness to record advice for other women officials and feelings toward other elected women officials in their village council (Table 5, Columns 4-5, Row 2).

Overall, we observe a consistent positive increase in gendered solidarity and accountability conditional on exposure to all-women peer groups, which is clearest in the increase in women officials’ favorable feelings toward other women in their elected *gram panchayat* (Table 5, Column 5, Row 1). In contrast, we see preliminary evidence for declines in gendered solidarity and mutual accountability for women officials exposed to mixed-gender peer groups, which are clearest in their reduced favorability toward other women in their elected *gram panchayat* (Table 5, Column 5, Row 2). This suggests that the gendered composition of peer groups may be an important mediator in the ability of peer groups to translate into political agency for elected women officials.

### 5.2.2 Mechanism 2: Attitudes toward gendered social roles

A second pathway through which peer groups may alter the political agency of women elected officials is by improving support for gender-equitable social norms, including lowering acceptance of gendered violence, in what Kabeer (1994) calls strengthening “power within”. For example, where women participated in microfinance groups alongside “gender-transformative group learning sessions” in India, group members perceived increased social support for women, including friendships and the presence of someone to whom they could turn to in times of trouble, alongside improving “power within,” intra-household decision-making authority, and reducing physical violence (Jejeebhoy et al. 2017; Díaz-Martin et al. 2022, p. 16). However, a review by Diaz-Martin et al. (2022, p. 27) finds the effects of peer groups on improving perceived gender norms and increasing “power within” are dependent on the number of meetings groups conduct as well as the political context. Microfinance-based peer-groups only reduce gendered violence when

they provide complementary interventions that explicitly aim to change violence.

We measure attitudes toward gendered roles and violence in five ways, which include attitudes toward political roles, familial reputation, and the appropriateness of gendered violence. Each of these uses a 5-point Likert scale where 1 indicates complete disagreement and 5 indicates complete agreement.

First, to assess attitudes toward gendered political roles, we ask women elected leaders to assess whether men make better political leaders than women. Here, we observe notable divergence in the impact of peer groups by gendered composition. Exposure to all-women peer groups markedly reduces bias against women leaders, shifting the mean assessment from neutrality (‘neither disagree or agree’)—a score of 2.5—to disagreement (‘somewhat disagree’)—a score of 2.2 (Table 6, Column 1, Row 1). In contrast, exposure to mixed-gender peer groups increases bias against women leaders, increasing the mean assessment to “somewhat agree” that men make better political leaders than women (a mean score of 2.7).

Second, we assess perceived norms about the importance of women in protecting familial honor and the impropriety of women’s independence. While neither treatment substantially moves attitudes that “the primary role of women should be to protect a family’s honor” (Table 6, Column 2), we do see exposure to all-women peer groups substantially reducing beliefs that “women who are highly independent indulge in improper behavior” whereas exposure to mixed-gender peer groups *increases* beliefs that women’s independence is improper (Table 6, Column 3).

Third, regarding the appropriateness of gendered violence, exposure to peer groups overall—both those comprised exclusively of women and mixed-gender groups—reduces self-reported perceptions by women elected officials that “there are times when a woman deserves to be beaten by her husband” as well as that “a woman should tolerate violence to keep her family together” (Table 6, Columns 4-5).

Overall, our findings provide suggestive evidence that the impact of peer groups on “power within”—that is, by reducing support for gendered norms that exclude women from politics and relegate them to subservient social roles—diverges based on the gen-

dered composition of peer groups. Whereas women-only peer groups improve “power within,” mixed-gender peer groups exacerbate perceived gender norms that limit women’s power in politics and society (Table 6, Columns 1, 3). However, there is one exception to these divergent results: peer groups consistently reduce perceived support for gendered violence, regardless of their composition (Table 6, Columns 4-5).

### 5.2.3 Mechanism 3: Networks

The third pathway through which peer groups may improve the political agency of women elected officials is via their impact on women’s social and professional networks. If so, this would align with experimental work by Prillaman (2021) which finds that participation in women-only peer groups that provide both micro-finance, political information, and civics training increased women’s political engagement explicitly via increasing the size of women’s social networks. Changing the size of women’s *political* as well as their social networks is likely consequential for their political agency, based on findings by Cruz and Tolentino (2019) that a main limitation for women elected officials across the Philippines is their substantially smaller political networks and lower levels of connections to other political officials as compared to those of men.

We study dynamics in the political networks of elected women officials based on their ability to approach other members of the elected *gram panchayat*, the number of individuals they know at the apex bureaucratic office they are likely to approach to resolve development and governance issues: the block development office (BDO), and the number of people they know in a political party whom they can ask for help.

We observe consistent improvement in women’s professional (and social) networks conditional on exposure to all-women peer groups. In particular, women exposed to all-women peer groups are substantially more likely to say that “when facing difficult tasks related to the *gram panchayat*,” they are “likely...to seek help from others”, increasing the likelihood of seeking help from “sometimes” (a mean score of 2.1) to “almost always” (a mean score of 2.5; Table 7, Column 1, Row 1). In addition, exposure to all-women peer groups is associated with slight increases in the frequency with which women elected

officials talk to other elected representatives in the *gram panchayat*, number of people known at the Block Development Office outside of the BDO, and the number of people known “in the political party [they] are a part of who [they] can ask for help” (Table 7, Columns 3-5, Row 1).

In contrast, the impact of exposure to mixed-gender peer groups on the likelihood that women officials will seek help from others “when facing difficult tasks related to the *gram panchayat*” is substantially attenuated, relative to the impact of women-only peer groups (Table 7, Column 1, Row 2). Furthermore, we see exposure to mixed-gender peer groups associated with slight *decreases* in political networks both inside the *gram panchayat*—based on the frequency of talking to other elected representatives there—and outside the *gram panchayat*, both within the block development office and the most relevant political party (Table 7, Columns 3-5).

Overall, the divergent effect of women-only versus mixed-gender peer groups is clear regarding their impact on women elected officials’ professional (and social) networks: strong positive effects of exposure to women-only peer groups contrast with attenuated positive, at best, or negative, at worst, impact of mixed-gender groups on the networks that women elected officials can leverage to resolve difficult tasks within the *gram panchayat*, the village council in which they serve, as well as to access resources from the bureaucracy (the BDO) and political parties (Table 7, Columns 1, 4-5).

## 6 Challenges and successes with building solidarity

### 6.1 Qualitative Observations from Women-Only Groups

The challenges and successes of building solidarity across two different groups varied not only due to the very nature of the groups but also due to the contexts of different villages. In women-only groups, we saw that the “opportunity to learn,” which is otherwise denied to married women, encouraged solidarity. Additionally, women were empowered to see themselves as true elected representatives rather than individuals who were afforded a chance to contest elections for the sake of their male relatives.

**Table 5:** Solidarity measures

|                          | Female soli-<br>darity index | Feelings of<br>male domi-<br>nance | Can talk to<br>other women | Willing to<br>record advice<br>for other<br>women | Feeling ther-<br>mometer<br>towards<br>other women<br>EWRs |
|--------------------------|------------------------------|------------------------------------|----------------------------|---------------------------------------------------|------------------------------------------------------------|
| <i>T1 vs. Control</i>    |                              |                                    |                            |                                                   |                                                            |
| (Intercept)              | 4.015<br>(0.253)             | 2.471<br>(0.286)                   | 3.941<br>(0.207)           | 0.773<br>(0.178)                                  | 55.371<br>(14.261)                                         |
| T1                       | 0.135<br>(0.297)             | -0.210<br>(0.390)                  | 0.233<br>(0.228)           | 0.150<br>(0.185)                                  | 21.605<br>(16.647)                                         |
| Num.Obs.                 | 39                           | 40                                 | 40                         | 48                                                | 78                                                         |
| R2                       | 0.007                        | 0.014                              | 0.023                      | 0.045                                             | 0.083                                                      |
| <i>T2 vs. Control</i>    |                              |                                    |                            |                                                   |                                                            |
| (Intercept)              | 4.015<br>(0.253)             | 2.471<br>(0.286)                   | 3.941<br>(0.207)           | 0.773<br>(0.178)                                  | 55.371<br>(14.261)                                         |
| T2                       | 0.160<br>(0.297)             | 0.129<br>(0.518)                   | 0.114<br>(0.312)           | -0.003<br>(0.232)                                 | -3.450<br>(21.062)                                         |
| Num.Obs.                 | 37                           | 37                                 | 35                         | 48                                                | 73                                                         |
| R2                       | 0.008                        | 0.004                              | 0.004                      | 0.000                                             | 0.002                                                      |
| <i>T1/T2 vs. Control</i> |                              |                                    |                            |                                                   |                                                            |
| (Intercept)              | 4.015<br>(0.253)             | 2.471<br>(0.286)                   | 3.941<br>(0.207)           | 0.773<br>(0.178)                                  | 55.371<br>(14.261)                                         |
| T1/T2                    | 0.147<br>(0.274)             | -0.052<br>(0.370)                  | 0.181<br>(0.233)           | 0.073<br>(0.193)                                  | 9.851<br>(16.903)                                          |
| Num.Obs.                 | 57                           | 60                                 | 58                         | 74                                                | 116                                                        |
| R2                       | 0.007                        | 0.001                              | 0.012                      | 0.008                                             | 0.013                                                      |

Note: This table presents coefficients and standard errors of regressions of treatment on female solidarity outcomes. Robust standard errors clustered at the GP level. Controls not included. No  $p$ -values are reported as analyses are exploratory and suggestive due to underpowered pilot study.

In interviews with participants, women shared that the intervention modules provided them with a space to deliberate and discuss their challenges as women leaders. The treatment particularly increased solidarity because women were given a chance to participate in a public space on behalf of the village, which is considered a sanctum for men. Women across villages said, “We never talked so much with each other in the *gram panchayat* office.” A *gram panchayat* member said, “We used to come, the *gram sevak* (village secretary) would read out the proceedings, we would listen to it, and we would

**Table 6:** Attitudes towards gender roles and violence

|                          | Men are bet-<br>ter leaders | Women pri-<br>mary role to<br>protect fam-<br>ily's honor | Women who<br>are indepen-<br>dent indulge<br>in improper<br>behavior | Women de-<br>serve violence | Women should toler-<br>ate violence<br>to keep fam-<br>ily together |
|--------------------------|-----------------------------|-----------------------------------------------------------|----------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------|
| <i>T1 vs. Control</i>    |                             |                                                           |                                                                      |                             |                                                                     |
| (Intercept)              | 2.543<br>(0.144)            | 3.457<br>(0.227)                                          | 2.114<br>(0.100)                                                     | 2.657<br>(0.221)            | 3.171<br>(0.206)                                                    |
| T1                       | -0.329<br>(0.290)           | -0.100<br>(0.289)                                         | -0.352+<br>(0.183)                                                   | -0.395<br>(0.351)           | -0.433<br>(0.304)                                                   |
| Num.Obs.                 | 77                          | 77                                                        | 77                                                                   | 77                          | 77                                                                  |
| R2                       | 0.022                       | 0.002                                                     | 0.050                                                                | 0.028                       | 0.028                                                               |
| <i>T2 vs. Control</i>    |                             |                                                           |                                                                      |                             |                                                                     |
| (Intercept)              | 2.543<br>(0.144)            | 3.457<br>(0.227)                                          | 2.114<br>(0.100)                                                     | 2.657<br>(0.221)            | 3.171<br>(0.206)                                                    |
| T2                       | 0.168<br>(0.237)            | 0.017<br>(0.300)                                          | 0.202<br>(0.180)                                                     | -0.262<br>(0.268)           | -0.361<br>(0.225)                                                   |
| Num.Obs.                 | 73                          | 73                                                        | 73                                                                   | 73                          | 72                                                                  |
| R2                       | 0.005                       | 0.000                                                     | 0.015                                                                | 0.017                       | 0.025                                                               |
| <i>T1/T2 vs. Control</i> |                             |                                                           |                                                                      |                             |                                                                     |
| (Intercept)              | 2.543<br>(0.144)            | 3.457<br>(0.227)                                          | 2.114<br>(0.100)                                                     | 2.657<br>(0.221)            | 3.171<br>(0.206)                                                    |
| T1/T2                    | -0.093<br>(0.225)           | -0.045<br>(0.262)                                         | -0.089<br>(0.167)                                                    | -0.332<br>(0.271)           | -0.399<br>(0.240)                                                   |
| Num.Obs.                 | 115                         | 115                                                       | 115                                                                  | 115                         | 114                                                                 |
| R2                       | 0.001                       | 0.000                                                     | 0.002                                                                | 0.019                       | 0.023                                                               |

Note: This table presents coefficients and standard errors of regressions of treatment on attitudes towards gender roles and violence outcomes. Robust standard errors clustered at the GP level. Controls not included. No  $p$ -values are reported as analyses are exploratory and suggestive due to underpowered pilot study.

sign the documents. We never even introduced ourselves in this fashion.”<sup>15</sup>

In the modules, EWRs stated that the narrative stories about ex-elected officials who sought solutions to the challenges they faced moved them. Though rarer, some EWRs wept in the sessions as the meetings afforded them a time and space to be vulnerable with each other.<sup>16</sup> Women in particular noted that gathering in a public space was important. A *gram panchayat* member<sup>17</sup> shared a realization: “I never thought that the

<sup>15</sup>Village P, interviews on 17th Feb and 9th March.)

<sup>16</sup>Observed in Village G on 18th February

<sup>17</sup>Village F on 10th March)

**Table 7:** Networks

|                          | Likelihood to<br>ask for help<br>from others in<br>GP | Feels like can<br>talk to others<br>in GP about<br>work | Frequency<br>of talking to<br>others in GP | Number of<br>people known<br>at block office | Number of<br>people known<br>in party |
|--------------------------|-------------------------------------------------------|---------------------------------------------------------|--------------------------------------------|----------------------------------------------|---------------------------------------|
| <i>T1 vs. Control</i>    |                                                       |                                                         |                                            |                                              |                                       |
| (Intercept)              | 2.114<br>(0.122)                                      | 4.143<br>(0.128)                                        | 3.306<br>(0.182)                           | 1.861<br>(0.493)                             | 2.886<br>(0.444)                      |
| T1                       | 0.338<br>(0.211)                                      | 0.101<br>(0.157)                                        | 0.229<br>(0.208)                           | 0.744<br>(0.622)                             | 1.944<br>(1.989)                      |
| Num.Obs.                 | 77                                                    | 76                                                      | 79                                         | 79                                           | 76                                    |
| R2                       | 0.045                                                 | 0.007                                                   | 0.008                                      | 0.013                                        | 0.023                                 |
| <i>T2 vs. Control</i>    |                                                       |                                                         |                                            |                                              |                                       |
| (Intercept)              | 2.114<br>(0.122)                                      | 4.143<br>(0.128)                                        | 3.306<br>(0.182)                           | 1.861<br>(0.493)                             | 2.886<br>(0.444)                      |
| T2                       | 0.123<br>(0.140)                                      | 0.173<br>(0.164)                                        | -0.042<br>(0.328)                          | -0.472<br>(0.710)                            | -0.086<br>(0.926)                     |
| Num.Obs.                 | 73                                                    | 73                                                      | 74                                         | 72                                           | 70                                    |
| R2                       | 0.010                                                 | 0.029                                                   | 0.000                                      | 0.007                                        | 0.000                                 |
| <i>T1/T2 vs. Control</i> |                                                       |                                                         |                                            |                                              |                                       |
| (Intercept)              | 2.114<br>(0.122)                                      | 4.143<br>(0.128)                                        | 3.306<br>(0.182)                           | 1.861<br>(0.493)                             | 2.886<br>(0.444)                      |
| T1/T2                    | 0.236<br>(0.156)                                      | 0.136<br>(0.144)                                        | 0.102<br>(0.229)                           | 0.190<br>(0.593)                             | 1.009<br>(1.190)                      |
| Num.Obs.                 | 115                                                   | 114                                                     | 117                                        | 115                                          | 111                                   |
| R2                       | 0.021                                                 | 0.013                                                   | 0.001                                      | 0.001                                        | 0.007                                 |

Note: This table presents coefficients and standard errors of regressions of treatment on attitudes towards social networks and help-seeking behaviors. Robust standard errors clustered at the GP level. Controls not included. No  $p$ -values are reported as analyses are exploratory and suggestive due to underpowered pilot study.

spaces would be divided into men’s spaces and women’s space.” This sense of identity as elected women, relating to the experiences of their predecessors, and discussing how to manage adversities while working as women leaders gave them a sense of belonging and solidarity.

Additionally, dynamics in particular villages also highlight new dynamics in all-women groups that can provide lessons for future studies. In one of the GPs, there was a pre-existing sense of sisterhood because all the elected women representatives were part of an SHG. Still, the *Sarpanch* (*gram panchayat president*) encouraged and enabled all

women to consistently attend the modules and fully participate. She made sure everyone was heard and created a sense of ownership of the *gram panchayat*<sup>18</sup>. The prior ties amongst members, along with strong leadership, made the modules even more effective.

In another *gram panchayat*, local politics led to discord.<sup>19</sup> Before the intervention, the prior *Sarpanch* of the *gram panchayat* was voted out of her seat with a vote of no confidence and replaced by another female elected representative, who served as the representative during the intervention. The group of four women *gram panchayat* members in the intervention were therefore divided into two camps, one that supported the erstwhile *Sarpanch* while another that supported the current *Sarpanch*. Given these divisions, the members rarely spoke directly to each other, instead addressing the facilitator throughout the training. Such politics can strongly limit the effects of peer groups and limit the ability to forge solidarity.

## 6.2 Qualitative Observations from Mixed-Gender Groups

Relative to women-only groups, the mixed-gender groups had limited effects on our measured outcomes. In this subsection, we discuss qualitative observations to better expand on group dynamics.

When women were introduced to the idea of inviting male allies, some questioned the idea, and few even opposed it. The fact that males were being invited to the groups after three sessions made them refer to the pre-existing group as ‘us’, indicating that their solidarity was gendered. A *Sarpanch* asked, “Is it not okay to just have us women? Why do we need men?”<sup>20</sup>

Part of the limitation of the mixed-gender groups was the availability of potential male allies. In 3 of 8 villages,<sup>21</sup> female members selected either very young men or the select few men available in the village during working hours who would not dominate the discussions. In these cases, the groups did not forge allyship because the women could not think of any potential allies with experience in village governance. At the same time, in

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<sup>18</sup>Observed in Village D on 24th Feb

<sup>19</sup>Village F, observations from 10th March

<sup>20</sup>Village J, observation on 6th March)

<sup>21</sup>Village J,M and O

one village,<sup>22</sup> male gatekeepers played an active role in disallowing any form of solidarity or allyship amongst members by discouraging attendance.

However, in some *gram panchayats*, the men's participation exhibited the potential to forge cross-gender solidarity.<sup>23</sup> In one village,<sup>24</sup> when a single male ally joined the three female members, he enabled the group to have difficult conversations. Two of the members looked down upon the *Sarpanch* because of her caste and because they thought they were "wiser" than her. A GP member said, "What experience does she have? We know a lot because of our women farmers collective. It is only after the election that she has stepped into the *gram panchayat*." The male ally said, "Speaking like this will not work in your favor. After all, she is the *Sarpanch* and she is educated. If you take a step forward, only then there is a possibility of any development in our village." However, through more conversations, we found out a motion of no-confidence was filed against the *Sarpanch* and was being adjudicated in court, making the task of building solidarity an uphill battle.

In another village,<sup>25</sup> six female elected members were joined by four allies. One of the female members was Muslim and so was one of the allies. They shared a brother-sister-like bond which acted as a catalyst for the entire group to build solidarity. The male allies shared their successes and failures without hesitation for the women to learn. In an instance, where all the participants had to rate the functioning of their *gram panchayat* on several indicators, the *Sarpanch* chose to rate the *gram panchayat* on the scale of 3 and above on all indicators. During deliberations over these ratings, an ally said to the *Sarpanch*,<sup>26</sup> "How did you give so many marks? This is not a reflection of your work. Is the gram panchayat so developed? Do you feel that are village is clean, it has good roads, the Public Distribution Service shop runs smoothly? The objective of this exercise is to understand where we fall short and how we can improve the condition of our village." To this query, the *Sarpanch* replied, "Yes, brother you are right. I did not feel right giving

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<sup>22</sup>Village O

<sup>23</sup>Village L, N and P

<sup>24</sup>Village L, observed on 16th March

<sup>25</sup>Village N

<sup>26</sup>Village N on 17th March

low ratings to our village. But now we should discuss how to improve our village as our facilitator has suggested. But you will have to support us.” This instance shows a sense of transparency and how participation from male allies could help all members learn.

## 7 Conclusion

Can participation in peer groups serve as a tool to reduce or eliminate stark gender gaps in women officials’ political agency within contemporary India and globally (Heinze, R. Brulé, and Chauchard 2024; Purohit 2023; Cruz and Tolentino 2019)? Our pilot RCT suggests that the answer is yes.

Taken together, three main themes emerge from our preliminary analysis of this pilot intervention. First, participation in peer groups appears to make incremental process in achieving our central goal: to improve the political agency of elected women officials. Participation in women-only peer groups improves two measures of political agency: self-perceived confidence in one’s ability to carry out core responsibilities within the elected village council (*gram panchayat*), and the proportion of decisions women officials report taking independently in their *gram panchayat* work (Table 2). Given that these are two crucial aspects of governance, we interpret these suggestive positive results as preliminary evidence in favor of all-women peer groups as an effective tool to advance elected women officials’ political agency.

In contrast, participation in mixed-gender peer groups may be more efficacious at building women officials’ confidence about speaking within a regular mixed-gender fora—the *masik sabha* meeting—and in their future electoral success (Tables 3, 8). When considering the impact of peer groups regardless of their gendered composition, participation is associated with substantial improvements in the self-confidence and self-perceived ability to overcome challenges of women elected officials (Table 4, Row 1, Columns 1 and 3). Peer groups are also associated with increases in the reported proportion of decisions that women officials take in their *gram panchayat* work and their speaking in monthly *masik sabha* meetings (Table 4, Row 2, Columns 2-3). Overall, these findings suggest

that solidarity groups have the potential to substantially shift perceived political agency as well as the concrete engagement of women elected officials in the core decision-making processes of local governance.

Second, considering the pathways through which peer groups may alter the political agency of women elected officials, we overall see consistent, positive increases in the impact of participation in all-women peer groups on each of the proposed mechanisms: (1) improving gendered understandings of solidarity and mutual accountability with other women elected officials, which is clearest in the increase in women officials' favorable feelings toward other women in their elected *gram panchayat* (Table 5, Column 5, Row 1); (2) shifting perceived norms toward more egalitarian gendered roles in politics and society with reduced support for gendered violence, as measures of what Kabeer (1994) calls "power within" (Table 6, Columns 1, 3-5); and (3) expanding women's professional and social networks (Table 7, Columns 1, 4-5).

Third and finally, we see divergent effects of participation in mixed-gender as opposed to all-women peer groups across substantial measures for each proposed mechanism. Regarding perceptions of gendered solidarity and mutual accountability, we see declines following participation in mixed-gender peer groups, most clearly in the markedly chillier feelings women officials express toward other women in their elected *gram panchayat* (Table 5, Column 5, Row 2). Additionally, participation in mixed-gender groups exacerbates perceived gender norms that limit women's power in politics and society (Table 6, Columns 1, 3), albeit with the exceptional finding that both all-women and mixed-gender groups consistently reduce perceived support for gendered violence (Table 6, Columns 4-5). Last, participation in mixed-gender peer groups has at best a limited impact on networks, with some indications that perceived networks in the *gram panchayat*, bureaucracy, and political parties *decline* in size following participation in mixed-gender peer groups.

Overall, we interpret this pilot as providing promising evidence of participation in women-only peer groups as a channel for improving women's political agency regarding their self-confidence and independence in conducting their core work as local elected of-

ficials. We find preliminary support for three possible mechanisms through which peer groups alter elected women officials’ agency: increasing notions of women’s solidarity and mutual accountability within the *gram panchayat* which is the central site for their work; reducing support for gender-biased norms that preclude women from political leadership and reduce their social and physical autonomy; and improving the size and utility of their political networks, particularly within the *gram panchayat*. In contrast, participation in mixed-gender peer groups may be more efficacious at building confidence in both speaking within a regular mixed-gender fora—the *masik sabha* meeting—and future electoral success, but appears less able to improve elected officials’ self-confidence in their ability to achieve their core work and may actually reduce gendered solidarity and networks within the *gram panchayat* and increase perceptions about the appropriateness of gender norms that preclude women from leadership in politics and society more broadly. Altogether, this suggests that peer groups may be potent drivers of changes in women officials’ political agency, but the direction of these effects likely varies based on the gendered composition of peer groups.

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# Appendices

## A Impact of T2

**Table 8:** T2's impact on political agency, relative to Control

|                                                                   |                                            |                                                   |                                |
|-------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------|--------------------------------|
| <i>Self-perceptions: As an elected official, I ...</i>            |                                            |                                                   |                                |
|                                                                   | Am confident in my abilities               | Can achieve goals I set                           | Can overcome challenges        |
| (Intercept)                                                       | 4.143<br>(0.034)                           | 4.088<br>(0.095)                                  | 4.057<br>(0.054)               |
| T2                                                                | 0.094<br>(0.171)                           | 0.228<br>(0.178)                                  | 0.180<br>(0.145)               |
| Num.Obs.                                                          | 73                                         | 72                                                | 73                             |
| R <sup>2</sup>                                                    | 0.006                                      | 0.031                                             | 0.020                          |
| <i>Reported behaviors: As an elected official ...</i>             |                                            |                                                   |                                |
|                                                                   | Citizens contact me when they have problem | I take this proportion of decisions in my GP work | I speak during the masik sabha |
| (Intercept)                                                       | 0.500<br>(0.100)                           | 0.483<br>(0.052)                                  | 0.056<br>(0.056)               |
| T2                                                                | 0.132<br>(0.134)                           | 0.143<br>(0.105)                                  | 0.155<br>(0.103)               |
| Num.Obs.                                                          | 74                                         | 74                                                | 74                             |
| R <sup>2</sup>                                                    | 0.018                                      | 0.058                                             | 0.051                          |
| <i>Behavioral intentions: As an elected official, I would ...</i> |                                            |                                                   |                                |
|                                                                   | Contest elections in the future            | Give my proposed budget to the BDO                | Consider resigning             |
| (Intercept)                                                       | 0.629<br>(0.052)                           | 0.571<br>(0.087)                                  | 0.167<br>(0.069)               |
| T2                                                                | 0.155<br>(0.084)                           | -0.045<br>(0.115)                                 | -0.059<br>(0.089)              |
| Num.Obs.                                                          | 72                                         | 73                                                | 73                             |
| R <sup>2</sup>                                                    | 0.029                                      | 0.002                                             | 0.007                          |

Note: This table presents coefficients and standard errors of regressions of treatment on political agency outcomes. Robust standard errors clustered at the GP level. Controls not included. No *p*-values are reported as analyses are exploratory and suggestive due to underpowered pilot study.

## B Missingness: solidarity outcomes

**Table 9:** Missingness of solidarity outcomes

|                   | Female<br>solidarity<br>index | Feelings of<br>male<br>dominance | Can talk to<br>other women | Willing to<br>record advice<br>for other<br>women |
|-------------------|-------------------------------|----------------------------------|----------------------------|---------------------------------------------------|
| T1 vs. Control    |                               |                                  |                            |                                                   |
| (Intercept)       | 0.500<br>(0.069)              | 0.553<br>(0.070)                 | 0.553<br>(0.071)           | 0.421<br>(0.137)                                  |
| T1                | 0.035<br>(0.097)              | -0.088<br>(0.097)                | -0.088<br>(0.081)          | -0.026<br>(0.180)                                 |
| Num.Obs.          | 81                            | 81                               | 81                         | 81                                                |
| R2                | 0.001                         | 0.008                            | 0.008                      | 0.001                                             |
| T2 vs. Control    |                               |                                  |                            |                                                   |
| (Intercept)       | 0.500<br>(0.069)              | 0.553<br>(0.070)                 | 0.553<br>(0.071)           | 0.421<br>(0.137)                                  |
| T2                | 0.026<br>(0.127)              | -0.079<br>(0.127)                | -0.026<br>(0.108)          | -0.105<br>(0.184)                                 |
| Num.Obs.          | 76                            | 76                               | 76                         | 76                                                |
| R2                | 0.001                         | 0.006                            | 0.001                      | 0.012                                             |
| T1/T2 vs. Control |                               |                                  |                            |                                                   |
| (Intercept)       | 0.500<br>(0.069)              | 0.553<br>(0.070)                 | 0.553<br>(0.071)           | 0.421<br>(0.137)                                  |
| T1/T2             | 0.031<br>(0.091)              | -0.083<br>(0.092)                | -0.059<br>(0.083)          | -0.063<br>(0.159)                                 |
| Num.Obs.          | 119                           | 119                              | 119                        | 119                                               |
| R2                | 0.001                         | 0.006                            | 0.003                      | 0.004                                             |

+  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Note: This table presents coefficients and standard errors of regressions of treatment on missingness of each solidarity outcome. Robust standard errors clustered at the GP level. Controls not included.