

Working Within Norms to Change Gender Attitudes: Evidence from Community Policing in a Segregated Setting*

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Abstract

Are police officers' attitudes towards gender based violence malleable to change? How might such change occur in highly gender-unequal contexts? We study a randomized community policing intervention in Pakistan which demonstrates the promise of combining segregation and integration-based approaches through creating separate spaces for women citizens, while also getting male and female officers to work together on integrated teams. We find that when separate spaces exist, women citizens attend community forums and raise distinctive concerns around gender-based violence. This shapes the perceptions of the female officers responsible for conducting these forums. Importantly, working on gender-integrated policing teams means that these effects also spillover to their male police officer colleagues, who continue to see GBV as a "high priority" issue a year after the intervention ends. Our findings demonstrate the potential to generate durable change in front-line bureaucrats' attitudes towards gendered issues by working around restrictive norms.

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Introduction

Gender-based violence (GBV), and its threat, disproportionately affects women around the world. According to the World Health Organization, nearly a third of all women experience physical or sexual violence from a partner during their lifetime. Yet, such violence mostly goes unreported, and the women who do choose to report it, are often met with apathy from the very public officials supposed to serve them. What strategies can facilitate greater understanding of women's concerns by formal institutions of the state, and make frontline bureaucrats more responsive?

Scholars have recorded the prevalence of gender-discriminatory attitudes among public officials in various contexts, ranging from beliefs in "myths" about domestic violence among county sheriffs in the United States (Farris and Holman, 2015), to implicit bias against women leaders among mid-level bureaucrats in India (Purohit, 2023). Such bias may be especially rampant in security-sector institutions like the police and military, which are historically male-dominated, and whose institutional culture valorizes traditionally masculine traits like aggressiveness (Ahmad, 2022; Karim et al., 2018; Silvestri, 2017). Our interviews with police officers in Pakistan suggest that such bias is not limited to male officers. One female constable in a control beat told us "Of the cases of [domestic] abuse that we see, 99% of them are fake and maybe 1% are genuine." And a male officer in a control beat said "Hardly any such incidents are reported here. This isn't an issue in our area."

Scholars of bureaucracy argue that biases are especially consequential when bureaucrats have discretion in how to allocate their time and effort (Lipsky, 2010). Studies document how front-line bureaucrats discriminate on the basis of class, religion and ethnicity, and how this produces unequal outcomes for citizens (Emeriau, 2021; Hemker and Rink, 2017; Neggers, 2018; White, Nathan and Faller, 2015). Our study focuses on gender bias. For the small minority of women who choose to seek formal redress for GBV, interaction with a front-line police-officer is often the first step

in the process. These officers have considerable discretion over the initial registration of victims' complaints, and the process of investigation, thus their biases can be consequential.

Is it possible to make police officers more responsive to GBV? Studies spanning political science, sociology, economics and criminology examine the efficacy of strategies within the broad gambit of "gender-responsive policing" to improve police responsiveness to women.¹ These strategies, often used in combination, range from "gender-sensitization" efforts e.g. training for officers (Caparini, 2020; McKee, Mueller-Johnson and Strang, 2020) to "gender-balancing" reforms to increase women's descriptive representation in the force (Karim and Beardsley, 2017), to institutional reforms like establishing separate police stations or desks to handle GBV complaints (Córdova and Kras, 2020; Jassal, 2020; Sukhtankar, Kruks-Wisner and Mangla, 2021).

Evidence on the success of these reforms is mixed, particularly in patriarchal settings (Jassal, 2020; Karim et al., 2018; Sukhtankar, Kruks-Wisner and Mangla, 2021). What works to achieve change in highly gender-unequal contexts? Must interventions challenge deeply embedded gender norms, or is it possible to work around norms, and still achieve lasting change? Our paper tackles these questions through a field experiment in Pakistan.

We study a randomized community policing intervention which aimed to improve police responsiveness to citizens in 6 Global South contexts, including Pakistan, through creating i) community forums to lower costs of citizens raising salient issues to the police, and ii) dedicated community policing units to respond to issues raised at these forums. This model of community policing, with a focus on community engagement and problem-oriented policing, is a widely used tool to improve citizen trust, perceptions of police and police responsiveness to citizens around the world. The evidence on such programs' efficacy is mixed, particularly in the Global South. In post-conflict Liberia, for example, Blair, Karim and Morse (2019) find that commu-

¹See Darak et al. (2017) for a review.

nity policing patrols improve citizens' knowledge of the police, reduce incidence of certain crimes, and improve reporting rates among certain populations. However, Blair et al. (2021) find null effects of community policing on outcomes of citizen trust, police responsiveness and crime registration across contexts.

While existing work has explored the implications of community involvement in policing in the context of racial, class, and ethnic inequality (Gonzalez and Mayka, 2022; Soss and Weaver, 2017; Brogden, 2005), gender inequality remains relatively unexplored. In Pakistan, the context of severe gender inequality yields important insights about the gendered implications of community policing, and how police can be made responsive to women's concerns in particular.

Our experiment compares a "gender-inclusive"² community policing intervention (CPOP-G) to a "gender-neutral" version (CPOP),³ and a control condition without any intervention. CPOP-G involves explicit efforts to include women in community forums, and integrates women officers into community policing teams. We demonstrate that under stark gender inequality, the ostensibly "gender-neutral" intervention perpetuates the status quo: women's exclusion from community space and deprioritization of their issues. Encouragingly, we show that the "gender-inclusive" model of the intervention is able to overcome women's exclusion and achieve lasting change in officers' prioritization of gender-based violence.

We argue that this change is possible because the intervention design combines approaches based on segregation and integration, working around contextual social norms of sex-segregation which are hard to shift in the short-term, while also undoing the status-quo of task-based segregation that keeps male and female police siloed into

²The "gender-inclusive" model of community policing is one that includes measures to guarantee the inclusion of women citizens and women officers in the intervention. Our use of "gender-inclusive" throughout the paper, always in quotes, reflects how it was used in programming, rather than the scholarly consensus on the crucial distinction between gender equality and women's inclusion (Ellerby, 2017). In our conclusion, we explicitly discuss the limits of women's inclusion for changing gender hierarchies and deep-seated norms as it relates to this intervention.

³We use "gender-neutral" to describe the version of the intervention that does not include explicit measures for women's inclusion. As we demonstrate, this has of course far from "neutral" implications.

separate roles.

First, in our context, where norms of sex-based segregation proscribe men and women mixing in public space, we find that “open-to-all” community forums created as part of the intervention, operated as *de-facto* all-male forums with rare attendance from women. Unsurprisingly, GBV was scarcely brought up in these forums. However, in communities where parallel all-women forums were introduced, they were well-attended by female citizens. When women were present, they made their distinctive concerns heard: the share of issues related to GBV raised by citizens is 35% greater in women-only forums, as compared to “open” forums. In a context where GBV is chronically under-reported, these all-women forums served to put GBV on the agenda.

Second, we find significant changes in female police officers’ beliefs about citizen prioritization of GBV, and their own prioritization of this issue. While the intervention is ongoing, female officers in CPOP-G who conduct these forums and directly hear women citizens’ complaints are 55 percentage points more likely to identify GBV as being a top priority for citizens, and 12 percentage points more likely to report it among their own top priorities, relative to control.

Third, as these female officers work together with male colleagues on integrated teams, these effects spill over to male officers in CPOP-G, who did not directly attend the women’s forums but become 38 percentage points more likely to identify GBV as being a top priority for citizens, and to report it among their own top priorities.

Impressively, most of these effects persist over a year after the intervention ended. Female and male officers in CPOP-G remain significantly more likely (32 and 20 percentage points respectively) to identify GBV as a top concern of citizens, relative to control. With regards to officers’ own priorities, the likelihood that male officers who participated in CPOP-G report GBV among their own top priorities remains 37 percentage points higher relative to control. However, female officers’ own prioritization reverts to levels similar to female officers in control a year after the intervention

concludes.

Our in-depth interviews conducted with officers more than year after the intervention ended suggest that change in male officers attitudes comes about due to their interactions with female colleagues as part of the intervention. This includes interactions while officers work together to develop community policing plans, but also time spent traveling to and from communities together as part of the intervention. Our interviews also provide a plausible explanation for the difference in persistence of effects. For female officers, conducting community forums and hearing women's experiences heightens the salience of GBV as a crucial issue, but does not necessarily provide novel information about the high prevalence and seriousness of GBV. However, male officers who lack similar lived experiences, are exposed to new learning about GBV: a crime that is highly under-reported to formal channels, and informally silenced in society. The novelty of information supports the persistence of effects among men.

To the question of whether discriminatory attitudes among state officials are malleable to change, our findings provide reason for optimism in patriarchal contexts in two respects. First, by identifying a pathway to change, we advance scholarship which documents the presence of bias among state officials. We also contribute to a debate on the efficacy of segregation vs. integration as approaches for achieving inclusion in divided societies by showing the promise of combining these approaches.

We find that in a highly gender-unequal context with strong norms of sex-based segregation, separate spaces enable women to contribute to public participatory forums, and raise the issue of GBV. Even in settings with less restrictive norms, scholars have documented positive effects of all-women "enclaves" on women's political influence, academic achievements, likelihood of speaking up, and asserting their preferences (Brown et al., 2023; Eisenkopf et al., 2015; Gneezy, Niederle and Rustichini, 2003; Karpowitz, Mendelberg and Shaker, 2012). Yet, without the element of integration, the issue would risk remaining in the enclave after being raised. Our findings of

lasting change in male officers' attitudes speak to the promise of integration in institutional settings, adding to evidence that interaction and contact with female colleagues can change men's attitudes, even in masculinized institutions (Dahl, Kotsadam and Rooth, 2021; Finseraas et al., 2016; Jones, 2023). Importantly, the contact created between male and female officers by serving together on the team meets conditions that are considered crucial for achieving hypothesized benefits of inter-group contact (Mousa, 2020; Pettigrew, 1998): male and female officers had to cooperate with each other to achieve common goals of the intervention, the contact was sanctioned by leadership, and their tasks were similar and equal.

The remainder of the paper proceeds as follows. First, we describe our study context, intervention and research design. We then lay out our theoretical predictions and present quantitative and qualitative findings. We conclude with a discussion of implications and limitations.

Context

This section describes relevant gender norms, women's presence and status in the police force, and police responsiveness to GBV in our study setting. These factors shape the design and implementation of the community policing intervention, inform our theoretical predictions, and help define the scope conditions of our findings.

Gender-Based Segregation in Society

Pakistan ranks 161st out of 191 countries on the Human Development Report's 2022 Gender Inequality Index. One manifestation of gender inequality is physical sex-based segregation in society, and women's exclusion from public spaces (Becker, 2019; Jayachandran, 2015; Pande, 2015). In some cases, e.g. Saudi Arabia, sex-based segregation is legally enforced in public settings, including workplaces (Miller, Peck and Seflek, 2020). In Pakistan, such segregation, while not legally enforced, is widely

practiced and enforced informally through strong social norms. A 2010 Pew Survey found that 85% of Pakistani Muslims say they would favor making segregation of men and women in the workplace the law in their country. Masood (2019) notes: “[...]educational facilities in Pakistan are almost always segregated by gender. Women-only universities and medical colleges are an extension of this social norm. Hospitals have separate male and female wards. Government offices and businesses including banks have separate counters for women” (p.223). These norms and practices have clear implications for police-community relations and the community policing intervention: they make it especially costly for women to directly approach male officers, or to participate in mixed-gender community forums.

Gender-Based Segregation on the Police Force

In 2017, women comprised less than 2% of the police force in Pakistan (DAWN, 2017). This under-representation means that male officers remain the first point of contact for most citizens. The barriers to joining a highly male-dominated security sector limit the potential for large increases in women’s descriptive representation on the force, making “gender-balancing” reforms especially difficult. Women officers recognize this dilemma: “ Senior Superintendent of Police (SSP) Amara Athar [...] agrees that women hesitate to approach the police for lack of female officers, but she believes the solution isn’t to depute women everywhere but rather [increase] gender sensitivity among the male force.” (Rizwan, 2022).

The police force is also highly gender-segregated in terms of tasks, whereby field duties are largely a male domain. This is reflected in time-use data collected in officer surveys (Table 1). While women report spending most of their time (86%) in duties within the police station; men spend over half their time (55%) in beat patrolling. Notably women do not report spending any time on First Information Report (FIR) investigation, which is key to the investigation of GBV.

Table 1: Percent of Time Spent by Officer on an Activity on a Typical Day

Police Activity	Male Officers	Female Officers
Panel A: Main Policing Duties		
Spending Time with Community	1.8	0.0
Beat patrolling	55.3	0.0
FIR investigation	6.1	0.0
Panel B: Administrative Duties		
Duties inside Police Station	19.7	86.3
Court duties	6.4	5.8
Providing security to politicians and bureaucrats	1.3	4.0
Panel C: Others		
Refreshment Break	9.4	4.0
Don't Remember/Refuse to Answer	0.1	0.0
N	180	42

Notes: Sample includes officers in control and non-sample beats surveyed at endline

Policing GBV

GBV is both ubiquitous and under-reported in Pakistan. According to the 2018-19 Demographic and Health Survey, 28% of ever-married adult women reported having experienced physical or sexual violence. Among those who sought help, a mere 1% approached the police. In 2021, 9734 cases of violence against women were reported in Punjab, a 10% increase from 2020;⁴ the conviction rate remained stagnant: 5% in 2020 and 4% in 2021. (Punjab Gender Parity Report, 2021)

Scholars have documented the various barriers that deter women from reporting GBV to the police. Our focus however is on how police themselves perceive GBV.

⁴These include rape, murder, attempted murder, beating, gang rape, custodial rape, acid burning, incest, stove-burning, honor killing and other cases

Studies show that resource-constrained police departments in Pakistan tend to prioritize high value property crimes, kidnapping, homicide, and law and order issues (Cheema et al., 2020, p. 291). Front-line officers often avoid treating GBV complaints as serious crimes, and encourage complainants to resolve the issue privately (Aziz and Sicangco, 2021).

Officers can do this due to the discretion they enjoy in classifying complaints. Under Pakistani criminal law, a criminal complaint requires the police officer to file a First Information Report (FIR) before investigation. When registering an FIR, the officer has to determine whether a complaint is cognizable or non-cognizable (Center for Peace and Development Initiatives, 2015). For cognizable complaints, officers may file the FIR, and start the investigation process. For non-cognizable complaints, however, officers can only proceed investigating with permission from a magistrate. Officers have considerable discretion in classifying complaints, and certain forms of domestic violence, assault and disputes about women's inheritance can be categorized as non-cognizable. The classification has important consequences for case outcomes including registration, timely collection of evidence, and quality of investigation. Officers' individual discretion means that their personal recognition of GBV as serious and high priority can be critical to women's access to justice.

Intervention: Citizen-Centric Problem Oriented Policing (CPOP)

The intervention we study is a community policing program implemented in two districts (Sheikhupura and Nankana) in Pakistan's Punjab province during 2019-2020. It was implemented as part of a coordinated multi-country RCT in 6 Global South countries under the EGAP Metaketa IV project. Community policing practices and citizen engagement in policing have gained traction in Pakistan in the past two decades, but have not been evaluated rigorously. The Police Order 2002 formally introduced

citizen-centered policing in Pakistan through institutionalizing Citizen Police Liaison Committees (CPLCs) (Khosa, 2015). Community policing in Pakistan was initially introduced in response to evidence of an acute trust deficit between the citizens and the police in Pakistan (Cheema, Shapiro and Hameed, 2017), and motivated by the idea that citizen engagement and cooperation are critical determinants of effective policing (Akerlof and Yellen, 1994; President's Task Force on 21st Century Policing, 2015; International Association of Chiefs of Police (IACP), 2015). The program we study was designed by Regional and District Police Officers in Sheikhpura during 2017-2018, adapting common community policing practices to the country context.

CPOP Intervention Components

The main components of the intervention were as follows:

1. **Dedicated Beat-Level Units (DBUs):** The intervention was carried out by teams of officers, Dedicated Beat-Level Units (DBUs) formed at the beat level: the lowest administrative unit for police in Pakistan. Appendix B1 describes the selection criteria for officers in DBUs. Each DBU comprised an officer at the rank of Upper Subordinate, assisted by a Lower Subordinate. DBU members received mandatory training prior to conducting any intervention-related activities (see Appendix B2 for details).
2. **Monthly Community Forums:** The program sought to improve citizen access to the police through monthly community forums convened by the DBUs. Forums were held every month at a randomly drawn location within a beat, and open to all area residents. Meeting times and locations were publicized and residents were encouraged to attend through public announcements using mosque loud-speakers, and word of mouth via active community residents. These forums aimed to increase the accessibility of police officers for citizens, and promote citizen engagement through facilitated discussions about common law and or-

der problems faced by the community.

3. **Community Policing Plans:** DBUs prepared prevention strategies in the form of community policing plans in response to the issues raised at forums. The plans were reviewed and updated on a monthly basis, and included an assignment of roles and responsibilities for the DBU officers. DBU officers were required to formally log their plans in police stations, and present progress at monthly meetings with a senior police officer at the district level.

“Gender-Inclusive” Community Policing (CPOP-G)

As initially designed, the community policing intervention did not have any explicit criteria for women’s inclusion. However, in the absence of formal criteria, the “neutral” intervention became male-dominated in practice. Although the selection criteria for officers to DBUs were prima-facie gender-neutral, two factors contributed to a *de-facto* preference for the selection of male officers: 1) women’s low representation in the police force and 2) task-based segregation detailed in Table 1, which meant that the criteria for DBU officers to have experience community-facing roles essentially restricted the pool to men. Thus, the composition of DBUs in CPOP intervention beats ended up being **all-male**. Simultaneously, although community forums were advertised as open to all residents, norms of sex-based segregation meant that women faced high *social* costs to attend such forums, and their attendance was negligible.

To correct for this, a “gender-inclusive” model of the intervention (CPOP-G) was designed and rolled out four months later. To guarantee women’s inclusion in community forums, parallel women-only forums were introduced in CPOP-G beats. Norms of gender-segregation in public spaces made separate forums for women favorable to alternative approaches such as concerted efforts to encourage women to attend the open forums. This approach was also in line with the stated preferences of women in out-of-sample localities who were interviewed as part of the design process, and over-

whelmingly expressed a preference for attending women-only forums over mixed ones. Their reasoning ranged from feeling more comfortable in all-women spaces, anticipated objections from male household members for attending mixed forums, and not wanting to discuss certain topics in the presence of male family members. Jayachandran (2021) similarly notes that demands for women-only transport options and workplaces are rooted both in women’s own concerns for personal safety, as well as patriarchal restrictions on women’s movement.

Women-only forums necessitated recruiting female officers to DBUs in CPOP-G beats to conduct the forums, as it would not have been socially acceptable for male officers to run the women-only forums in our context. This was done by mandating the inclusion of 1 female constable on each DBU in CPOP-G beats. CPOP-G beats thus came to be serviced by gender-integrated teams with male and female officers working together. This also shifted task-based segregation by involving women in community-facing tasks. The key components of CPOP and CPOP-G are summarized in Table 2:

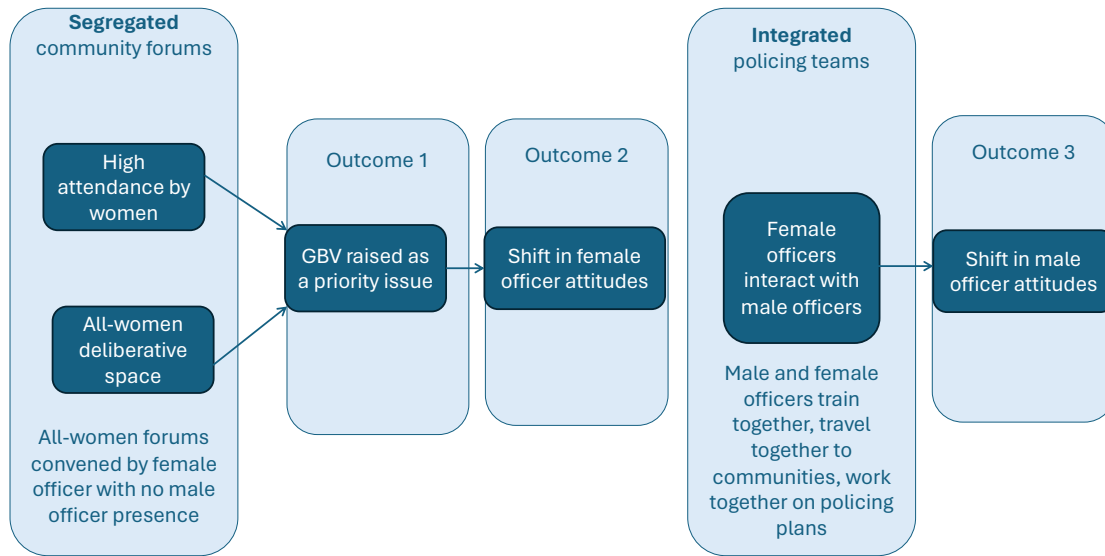
Table 2: Intervention Components

Design Feature	Gender-Neutral (CPOP)	Gender-Inclusive (CPOP-G)
Community Policing Teams	2 member team (all male)	3 member team (2 male + 1 female)
Monthly Community Forums	Open forums run by male officers	Open forums run by male officers + Women-only Forums run by female officers
Community Policing Response Plans	Prepared by all male team	Prepared by mixed gender team

Theory of Change

In this section, we discuss the promise of approaches based on segregation and integration. While these are often posed as a binary, our theory of change, visualized in Figure 1, emphasizes the importance of combining both.

Figure 1: Theory of Change



Segregated spaces for women run the danger of reinforcing discriminatory norms, and inattention to women’s concerns (Jassal, 2020). While these trade-offs are important, the motivation for segregation in our setting comes from the high social cost of mixed-gender interactions. A short-term intervention is unlikely to transform these long-standing norms. Under such costs, supposedly integrated spaces risk excluding women altogether. Moreover, women may themselves express preferences for separate spaces; e.g. in the case of gender-segregated transport options (Aguilar, Gutiérrez and Villagrán, 2021; Field and Vyborny, 2022; Kondylis et al., 2020). Even in settings where mixing is socially appropriate, separate spaces may have advantages, for instance as Karpowitz and Mendelberg (2018) argue, because “women face identity-based threats to their authoritative influence in mixed-gender groups” (p.1144). They find that participation in an all-women group has empowering effects for women and also leads to different policy decisions than mixed-gender groups. Similarly, Parthasarathy, Rao and Palaniswamy (2019) document the disadvantage women face in being heard in mixed-gender village assemblies in India.

In our context, segregation serves two functions: 1) it allows women to attend

public forums without incurring social costs 2) provides an enabling environment for them to speak up and express distinctive concerns. We thus expect that issues of GBV are more likely to come up in all-women forums where women are present, and can express themselves (Outcome 1):

H₁: GBV will be more frequently discussed in women-only forums in CPOP-G than in open forums in CPOP or CPOP-G.

Once GBV is put on the agenda, we expect that the female officers convening all-women's forums will come to recognize it as high priority (Outcome 2). This could happen through an informational channel, whereby the forums provide officers with new information about the prevalence of the issue. It could also happen through a salience channel, whereby hearing the concerns reinforces their importance. While we cannot satisfactorily adjudicate between these two channels, we test the following observable implications:

H_{2a}: Female officers in CPOP-G beats will be more likely to recognize GBV as a priority for communities than female officers in control or CPOP beats.

H_{2b}: Female officers in CPOP-G beats will be more likely to personally prioritize GBV as a problem than female officers in control or CPOP beats.

Without an element of integration, the buck would stop here. However, the CPOP-G intervention also got female officers to work together with their male colleagues on policing response plans to address issues raised in the forums. Does integration on policing teams allow these effects to spillover to male colleagues?

Theories of representative bureaucracy predict that increasing women's descriptive representation ought to improve institutional responsiveness to women's distinctive interests. The logic underpinning "gender balancing" reforms is that female officers "police differently" and may take GBV complaints more seriously than their male counterparts (Meier and Nicholson-Crotty, 2006). Additionally, exposure to female colleagues has been shown to influence men's attitudes and behaviors in police forces and militaries (Miller and Segal, 2019; Finseraas et al., 2016). On the other hand,

policewomen may adopt masculine norms to “fit in”, or remain disempowered from making change, limiting the scope for such change (Chan, Doran and Marel, 2010; Rabe-Hemp, 2009). Furthermore, gender-based task segregation can also limit the gains from increased representation. In England, Andrews and Johnston Miller (2013) find that domestic violence arrest rates increase under female police chief constables, but only when the officers are given the opportunity to carry out front-line police work.

Overall, the literature suggests that interaction between men and women in bureaucratic settings can impact processes and outcomes, as well as affect attitudes of men who work with these women. We expect that this interaction and task-based integration should facilitate spillover of attitudinal effects to male officers:

H_{3a}: Male officers in CPOP-G beats will be more likely to recognize GBV as a priority for communities than male officers in control or CPOP beats.

H_{3b}: Male officers in CPOP-G beats will be more likely to personally prioritize GBV as a problem than male officers in control or CPOP beats.

To summarize: segregation enables women citizens’ presence and voice in public forums, and gets their issues on the agenda. Yet without integration, the scope for change would remain limited to female officers’ priorities: as such, GBV remains a “women’s issue”. Integration at the officer level produces spillovers to male officers: those who make up majority of the force.

Sampling and Randomization

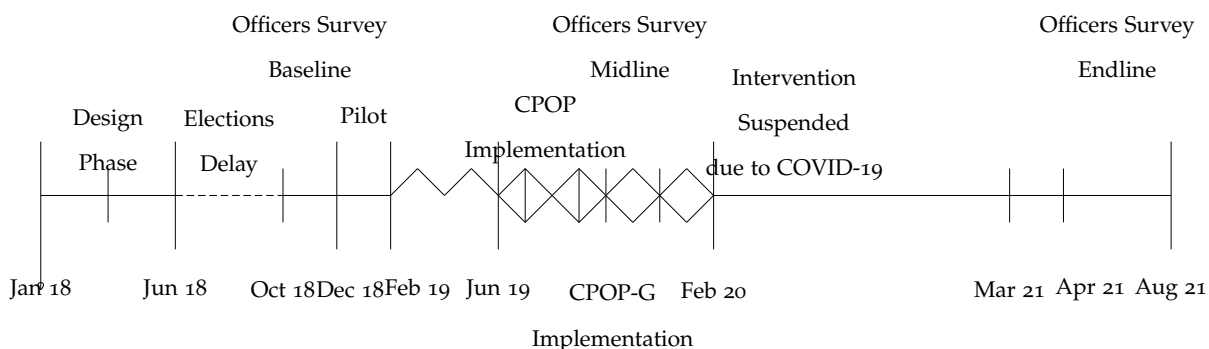
This section provides background on the study area, sampling and randomization, and intervention timeline. The study received IRB approval, and we provide further details on ethical considerations in Appendix A1.

Study Area, Sample and Timeline

The program was implemented in two districts (Sheikhupura and Nankana) in the Punjab Province of Pakistan, which together have a population of 4.6 million. The districts include 27 police stations that cover 150 beats, comprised 1053 villages and 516 urban neighborhoods. The sample for the evaluation consists of 108 beats. Appendix Figure A1 shows beat boundaries, and their assignment to experimental conditions; Appendix Table A1 shows that the registered crime rate in the study districts lies within 1 standard deviation of the provincial average.

The monthly forums were held in villages and neighborhoods within beats at randomly drawn locations to ensure that access was inclusive within beats. Figure 2 summarizes the timeline of the field experiment. The CPOP intervention began in March 2019, and CPOP-G began later in July 2019. Both programs were halted early due to the COVID-19 pandemic in March 2020.

Figure 2: Project Timeline

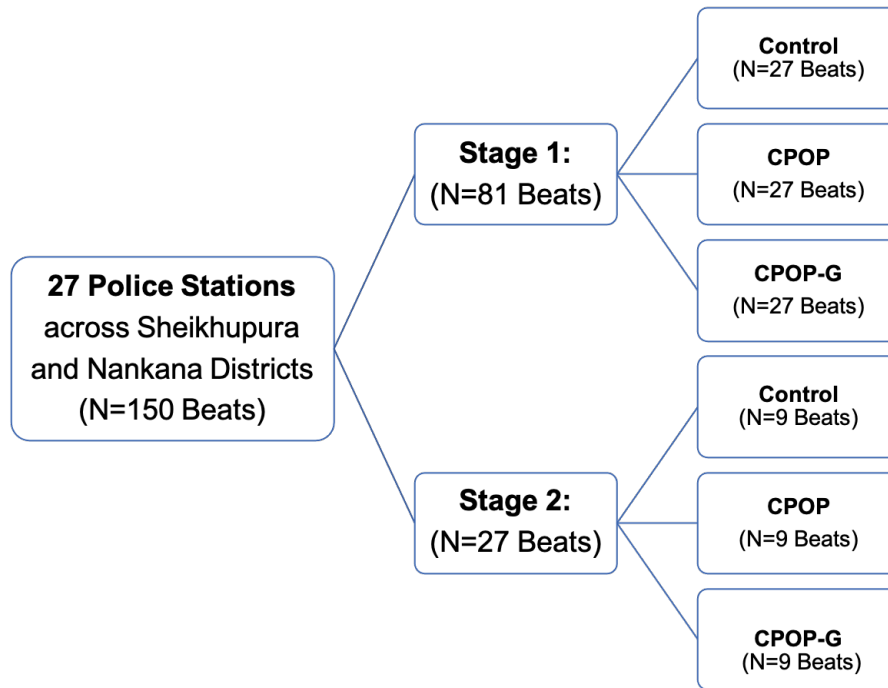


Randomization

Randomization was carried out within police stations, with the beat as the unit of randomization. Initially, 3 beats were randomly drawn from each of 27 stations, and assigned to each experimental condition: Control, CPOP, and CPOP-G. In the second stage, one additional beat from each of the 27 police stations was randomly assigned to each of the 3 conditions, using PPS (Probability Proportional to Size) sampling for a

total sample of 108 beats. Figure 3 shows the final randomization scheme. Appendix Tables A2 and A3 show balance across beats on key characteristics measured pre-treatment.

Figure 3: Randomization Scheme



Data

Forum Outcomes

Officers in treatment beats maintained administrative logs of community forums recording attendance, and the issues highlighted at each forum. These logs were electronically submitted at their respective police stations and made accessible to the senior police officer overseeing the program at the district level. We use the monthly log data from February 2019 to February 2020 to report on forum attendance and issues brought up at forums.

Officer Outcomes

We measure officer level outcomes using panel surveys of 138 male and 100 female officers. Due to budgetary constraints, we surveyed only a subset of male officers (those of Upper Subordinate rank) at baseline. We conduct three rounds of surveys with this sample of male officers baseline (2018); midline (2019); and endline (2021). At midline and endline, we survey all male and female officers in our sample.

The survey asked officers to report their personal priorities, i.e., what they considered to be the top three public safety issues in their beat from a list.⁵ They were also asked to report their perceptions of citizen priorities, i.e. what they considered to be the top three public safety concerns of citizens in their beat.

We construct a dummy variable for “GBV” which takes a value of 1 if sexual assault, domestic violence, or child abuse are among the top 3 reported concerns. We then measure officers’ beliefs about the importance of GBV using the following two survey-based measures:

- Probability that an officer reports GBV as one of the top 3 concerns of citizens in their beat
- Probability that an officers reports GBV as one of their own top 3 concerns

Qualitative Interviews

During April 2022, we conducted 36 semi-structured interviews with a random subset of officers who were part of the study. We interviewed 12 officers (6 male; 6 female) in each experimental condition: control, CPOP and CPOP-G beats. We draw on interview transcripts to understand officers’ lived experiences of the intervention, and the mechanisms of observed change.

⁵The list included: burglary or theft (without a weapon); armed robbery; murder; vehicle accidents; public intoxication; sexual assault; domestic abuse; vehicle theft; police abuse; illegal guns; illegal drug use; child abuse; land disputes; street crime.

Analysis

Quantitative Outcome Data

We registered the design of the field experiment with the AEA registry in June 2019, before rolling out the CPOP-G treatment, and submitted modifications prior to end-line data collection in March 2020. However, this paper focuses on outcomes of citizen attendance and prioritization of GBV in open forums, and effects on police officer attitudes and beliefs about GBV, which were not part of our pre-registered hypotheses. Moreover, the qualitative interviews which were conducted after the conclusion of the intervention and following preliminary analysis of quantitative data inform our current understanding of the mechanisms of change, which are also not reflected in the pre-analysis plan.

We report results on forum attendance and the concerns raised by citizens in community forums convened across beats assigned to each treatment condition (CPOP and CPOP-G) using administrative log data.

For our survey based outcomes, we estimate intent-to-treat (ITT) effects on female and male officers' beliefs about citizens' priorities and their own prioritization of GBV through the following specification:

$$Y_i = \beta_0 + \beta_1 CPOP_i + \beta_2 CPOPG_i + \gamma_i + \epsilon \quad (1)$$

Where γ_i are police station fixed effects, and standard errors are clustered at the police station level.

For the subset of male officers surveyed at baseline, we also report results at mid-line and endline controlling for the baseline values of the outcome measures using the following equation in Appendix Table C5:

$$Y_{i,t=1} = \beta_0 + \beta_1 CPOP_i + \beta_2 CPOPG_i + \pi Y_{i,t=0} + \sigma_s + \epsilon_I \quad (2)$$

Where $Y_{i,t=1}$ is the given outcome variable measured post-treatment, $Y_{i,t=0}$ is its baseline value, σ_s is a police station fixed effect, and standard errors are clustered at the police station level.

For all specifications, we take a conservative approach and cluster standard errors at the police station level ($n=27$), rather than at the unit of randomization, i.e. the beat level ($n=108$), because officers were recruited for the experiment at the police station level. Appendix Tables C2 and C3 show robustness of results to the alternate specification with standard errors clustered at the beat-level.

The midline results measure short-term effects while the intervention was still ongoing, while endline results measure persistence of the effects after the intervention had been suspended for a year due to COVID-19.

Qualitative Interview Data

Scholars have highlighted the value of qualitative data for field experiments (Dunning, 2008; Levy Paluck, 2010; Seawright, 2021), yet it remains rare for field experimental papers to integrate qualitative data in their analysis. This also raises the question of how researchers should integrate quantitative and qualitative findings to best improve inferences. Following Seawright (2021) we draw on the qualitative data in service of “addressing areas that are not inherent strengths of experimental research”, in this case understanding officers’ experiences of the intervention and processes of change.

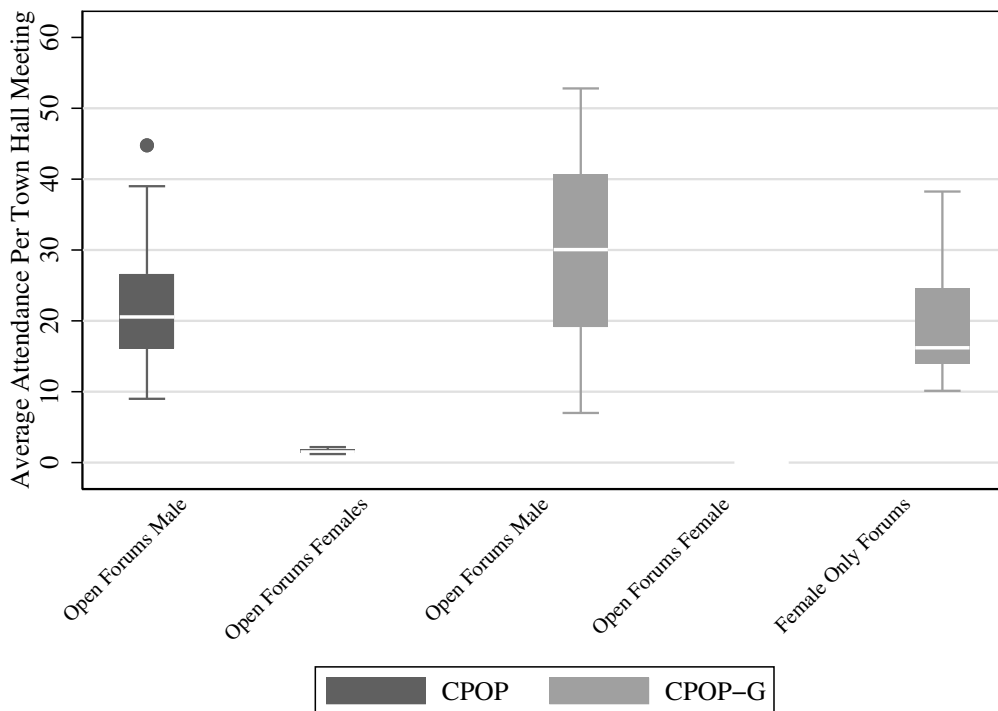
Results

Forum Attendance and Citizen Concerns

Figure 4 shows the number of male and female attendees in forums held in treatment beats. We find that women’s attendance in open-to-all forums in the CPOP condition

is extremely low: 23 women attended 412 open forums conducted between February 2019 and February 2020. However, in the CPOP-G beats which held women-only forums, 1146 women attended the 188 women-only forums held between July 2019 and February 2020. A separate space thus boosted women’s participation. Appendix Figure B1 shows average monthly attendance at forums throughout the life of the intervention.

Figure 4: Average Forum Attendance by Treatment



Source: Police administrative records of the monthly community forums (Feb2019–Feb2020).
Notes: Box plot shows average and inter-quartile range of average attendance per forum per beat. Total attendance: Open Forums (CPOP): 2984 men and 23 women in 412 forums; Open Forums (CPOP-G): 2034 men and 0 women in 208 forums; All-Women Forums (CPOP-G) 1146 women in 188 forums. Forums were held between Feb 2019 and Feb 2020 in CPOP beats, and between July 2019 and Feb 2020 in CPOP-G beats.

Forum attendees encompassed a range of educational and occupational backgrounds (see Appendix B3). In our interviews, police officers’ perceptions converged on most attendees being poor and working class. Data collected from attendees shows that 40% of women attendees had completed high-school, while only 30% of men had. This is broadly reflective of district averages for women, but the male attendees were

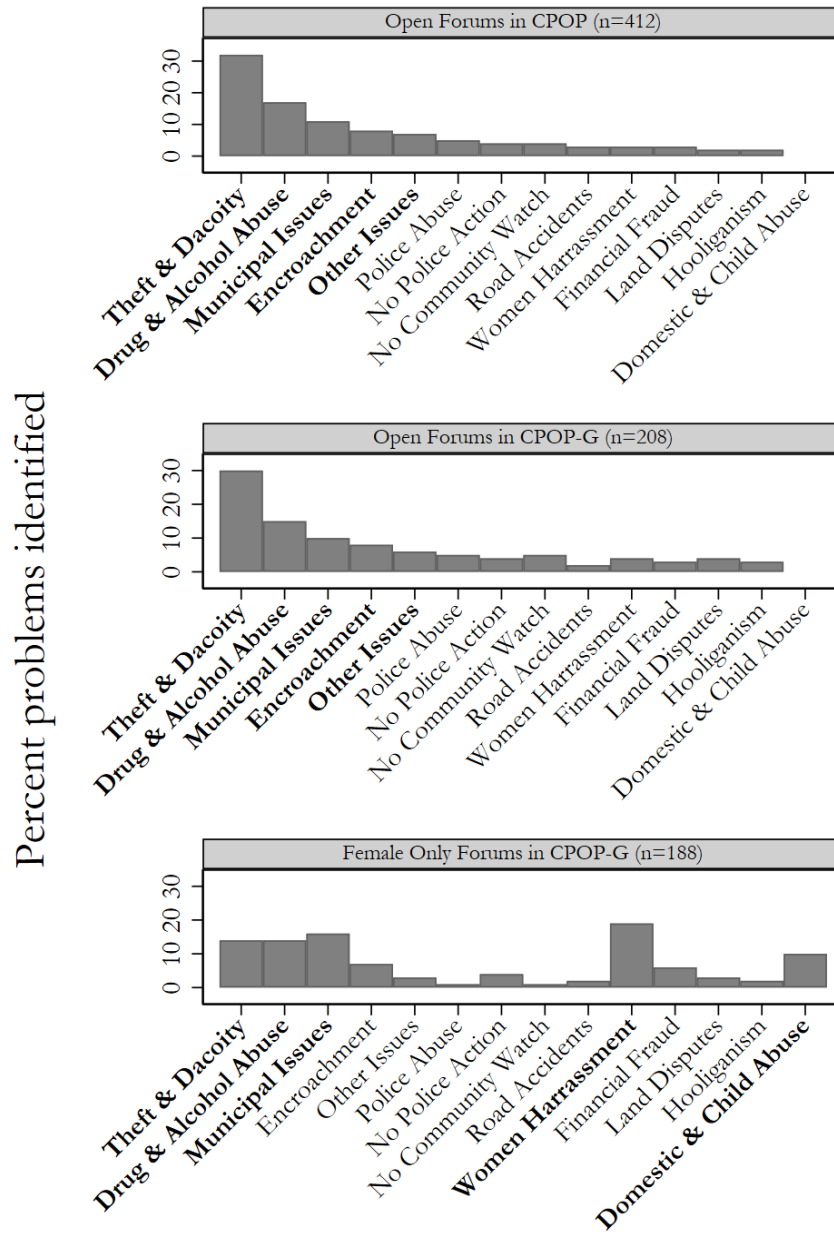
less educated than the district average.⁶ The vast majority of men were employed in daily wage labor or agricultural work, while 35% of women attendees were housewives. 40% of women attendees reported being daily wage workers, which is higher than the female labor force participation rate in the province (27.8%).⁷ This selection is intuitive: working women are likely to be ones with fewer constraints on mobility, and more able to participate in a public forum.

Does women's presence through all-women's forums have substantive implications? Figure 5 shows the frequency with which different issues were raised by forum attendees across open forums in CPOP and CPOP-G beats, and women-only forums in CPOP-G beats. The top 5 issues raised in open forums in both CPOP and CPOP-G beats included theft and dacoity, drug and alcohol abuse, municipal issues, encroachment and other miscellaneous issues. While women's forums also raised theft and dacoity (armed robbery), drug and alcohol abuse and municipal issues, their top 5 issues also included women's harassment and domestic and child abuse. By contrast, women's harassment and domestic abuse saw negligible mention in open forums across both treatment conditions.

⁶According to the 2017-18 MICS Survey, 38.8% of women and 45.3% of men in Sheikhpura had completed upper secondary education

⁷Punjab Gender Parity Report, 2021

Figure 5: Problems Identified in Monthly Community Forums



Source: Police administrative records of the monthly community forums (Feb 2019 - Feb 2020). **Notes:** Figure shows distribution of problems identified by forum participants. Total problems identified in 412 Open Forums in CPOP: 735. Total problems identified in 208 Open Forums in CPOP-G : 472. Total problems identified in 188 Female Only Forums in CPOP-G: 339. Bold font represents top 5 problems identified in each forum type.

Table 3: Identification of Gender-Based Violence as a Problem, by treatment arm and forum type

	(1)	(2)	(3)
Panel A: Pr(Problem is GBV-related)			
CPOP-G vs. CPOP	0.101*** (0.019)		
Open forums in CPOP-G vs. Open Forums in CPOP		-0.0003 (0.016)	
All Women Forums in CPOP-G vs. Open forums in CPOP-G			0.262*** (0.031)
Constant	0.014 (0.015)	0.0004 (0.018)	0.065*** (0.012)
Total clusters	72	72	72
N	1,546	1,195	823
R ²	0.055	0.041	0.151
Panel B: Share of problems that are GBV related			
CPOP-G vs. CPOP	0.170*** (0.053)		
Open forums in CPOP-G vs. Open Forums in CPOP		-0.036 (0.045)	
All Women Forums in CPOP-G vs. Open forums in CPOP-G			0.352*** (0.092)
Constant	0.132 (0.115)	0.045 (0.057)	0.324*** (0.046)
Total clusters	72	72	72
N	108	72	72
R ²	0.270	0.341	0.460

Notes: * $p < .1$; ** $p < .05$; *** $p < .01$. Robust standard errors are clustered at the beat level. GBV includes harassment of women, domestic violence and child abuse. 36 CPOP, 36 CPOP-G Beats. Panel A estimates show gender differences in probability that forum attendees in CPOP-G beats report a GBV concern. Panel B estimates show differences in total share of GBV concerns reported by a forum type within a beat.

Table 3, column 1 shows that the probability of forum attendees raising a problem that can be classified as GBV is nearly 10 percentage points higher, and that the share of problems raised in forums that can be classified as GBV is 0.17 greater in beats assigned to the “gender-inclusive” arm (CPOP-G), as compared to the “gender-neutral” treatment arm (CPOP). When we compare between open forums across the two treatment arms (Table 3), we find no significant differences. The difference across experimental conditions is clearly driven by the women-only forums. In these forums, the probability of a problem that is raised being classified as GBV is 26 percentage

points higher, and the share of problems raised that can be classified as GBV is 0.35 greater than in open forums in the “gender-inclusive” treatment arm.⁸ The gender composition of forums thus seems to have substantive implications for the type of problems raised in forums, and specifically the extent to which forums identify GBV as a problem. In an interview, a female officer noted how GBV was a shared concern, even as it took on different forms for housewives vs. working women:

“they told us about the violence against them, instances where boys would harass their daughters, or instances when their husbands would domestically abuse them. Some educated women described issues that other women did not: issues with their workplaces, how several people bother them, and the backlash they receive at home for wanting to get jobs.”⁹

In Appendix C6.1, we draw on further qualitative evidence to show that the discussions in the forums were indeed organic, and not driven by police officers.

Police Officers’ Beliefs and Priorities

Tables 4 and 5 show estimated effects of the two treatment variations on officers’ beliefs about citizens’ prioritization of GBV as an issue for the police to address, and officers’ own opinions about whether GBV should be a priority issue for the police. We estimate effects for all female and male officers who participated in the study at midline, while the intervention was ongoing, and at endline, about a year after the intervention had been suspended due to the pandemic.¹⁰

⁸These results are robust to dropping an outlier beat from the sample (Appendix Table C1)

⁹Female Officer, CPOP-G

¹⁰Appendix Tables C2 and C3 show that results are robust to clustering errors at the beat-level, rather than police-station level

Table 4: Officer Beliefs about Citizens' Priorities

Pr(Officer Ranks GBV Among Top 3 Citizen Priorities)		
Panel A: Female Officers		
	Midline Only	Endline Only
CPOP	0.083 (0.127)	0.023 (0.137)
CPOP-G	0.550 ^{***} (0.105)	0.322 ^{***} (0.124)
Constant	0.640 ^{***} (0.088)	0.122 (0.095)
CPOP-G vs CPOP (t-test value)	4.233	2.417
CPOP-G vs CPOP (p-value)	0.000	0.018
Control Mean	0.5	0.444
Total clusters	27	27
N	100	100
R ²	0.440	0.328
Panel B: Simple Differences (Male Officers Only)		
CPOP	-0.111 (0.090)	-0.062 (0.101)
CPOP-G	0.386 ^{***} (0.086)	0.203 ^{**} (0.099)
Constant	0.821 ^{***} (0.074)	0.562 ^{***} (0.081)
CPOP-G vs CPOP (t-test value)	6.090	2.870
CPOP-G vs CPOP (p-value)	0.000	0.005
Control Mean	0.485	0.441
Total clusters	27	27
N	200	205
R ²	0.327	0.160

Notes: (1) * $p < .1$; ** $p < .05$; *** $p < .01$. (2) Robust standard errors are clustered at the police station level. (3) The outcome variable measures the probability that an officer reports gender-based violence (sexual assault, domestic violence or child abuse) among any one of the top 3 public safety concerns according to citizens (4) Column 1 shows regression results from midline; Column 2 shows estimates from endline. Details on survey questions and construction of outcome measures are provided in Appendix D.

Table 5: Officers' Own Priorities

Pr(Officer Ranks GBV Among Top 3 Own Priorities)		
Panel A: Female Officers		
	Midline Only	Endline Only
CPOP	-0.055 (0.138)	-0.048 (0.154)
CPOP-G	0.434*** (0.111)	-0.052 (0.146)
Constant	0.546*** (0.095)	0.639*** (0.108)
CPOP-G vs CPOP (t-test value)	4.191	-0.032
CPOP-G vs CPOP (p-value)	0.000	0.975
Control Mean	0.444	0.528
Total clusters	27	27
N	100	100
R ²	0.396	0.273
Panel B: Simple Differences (Male Officers Only)		
CPOP	0.027 (0.079)	0.209*** (0.080)
CPOP-G	0.385*** (0.097)	0.368*** (0.096)
Constant	0.280*** (0.068)	0.155** (0.060)
CPOP-G vs CPOP (t-test value)	4.123	1.851
CPOP-G vs CPOP (p-value)	0.000	0.066
Control Mean	0.333	0.265
Total clusters	27	27
N	200	205
R ²	0.240	0.250

Notes: (1) * $p < .1$; ** $p < .05$; *** $p < .01$. (2) Robust standard errors are clustered at the police station level. (3) The outcome variable measures the probability that an officer reports gender-based violence (sexual assault, domestic violence or child abuse) among any one of the top 3 public safety concerns according to themselves (4) Column 1 shows regression results from midline; Column 2 shows estimates from endline. Details on survey questions and construction of outcome measures are provided in Appendix D.

Female Officers

Panel A, column 1 in Tables 4 and 5 describes effects for female officers at midline, while the intervention is ongoing. In line with H₃, we find that female officers who participated in CPOP-G are 55 percentage points more likely to report that GBV is

among citizens' top priorities, and 43 percentage points more likely to report that GBV ought to be among the top priorities of the police, relative to female officers in control.

Panel A, column 2 shows effects at endline. The effect on female officers' beliefs about citizen priorities persists: female officers in CPOP-G remain 32 percentage points more likely to report that GBV is among citizens' top priorities (Table 4). However, effects on officers' own reported priorities dissipate: at endline there is no significant difference between female officers in CPOP-G and those in control (Table 5).

As expected, given that female officers were not involved in the "gender-neutral" intervention (CPOP), we do not detect effects on beliefs of female officers in beats assigned to this treatment.

Male Officers

Panel B in Tables 4 and 5 describes effects on male officers. Male officers' beliefs about citizens' prioritization of GBV and their own beliefs about the importance of GBV in beats that received the gender neutral treatment (CPOP) remain unchanged at midline. This is in line with the evidence that the mostly male attendees of open community forums convened by male officers in CPOP beats did not voice GBV as an important concern (Figure 5 and Table 3)

However, in line with H4, we observe substantively large and significant changes in male officers' beliefs and priorities in beats assigned to the "gender-inclusive" treatment (CPOP-G). At midline, officers in these beats are 39 percentage points more likely to report that GBV is a top priority for citizens (Table 4, Panel B, Column 1), and 39 percentage points more likely to report personally considering GBV a top priority (Table 5, Panel B, Column 1). We interpret this as spillover effects from female officers to male colleagues in beats assigned to CPOP-G. Similar to their colleagues in CPOP beats, male officers convened open community forums in CPOP-G beats, which were

almost exclusively attended by men who did not raise concerns of GBV (Figure 5). However, in CPOP-G, male officers worked closely in teams with female colleagues who conducted all-women forums.

Importantly, changes in male officers' attitudes persist after the intervention ends. At endline, male officers in CPOP-G beats remain 20 percentage points more likely to report GBV among citizens top priorities (Table 4, Panel B, Column 2), and 37 percentage points more likely to report GBV among their own top priorities (Table 5, Panel B, Column 2) than control.

While H₄ outlined our expectations about spillovers from female to male officers within the same beats assigned to the "gender-inclusive" treatment, we did not predict spillovers across treatment arms. However, at endline we observe that officers in beats assigned to the "gender-neutral" treatment also become 20 percentage points more likely to rank GBV as a top priority relative to control (Table 5, Panel B, Column 2). Once the intervention ended, and officers were reassigned to work with each other, it is plausible that interactions and exchanges between officers in the same police station who were involved in the community policing treatment could produce this spillover. This spillover is less likely for female officers since, unlike their male counterparts, they were not involved in the "gender-neutral" community policing intervention.

Further Analysis

Experimenter Demand Effects: Could changes in officers' self-reported attitudes reflect an experimenter demand effect, or social desirability bias? First, it is worth noting that the training for both male and female officers was entirely focused on how to implement a general model of problem-oriented community policing; there was no content in the training materials related to women's concerns, or GBV specifically. Prioritizing GBV or responsiveness to women was never an explicitly stated goal of the program. We expect that the measures on the survey most likely to be influenced

by experimenter demand effects would be the ones most closely related to the publicly stated goals of the program, and topics emphasized in training. We test to see if this is the case, and find null effects on measures of officer attitudes towards police abuse, accountability, corruption and empathy to citizens, which are most closely tied to the intervention goals and themes emphasized in training (Appendix Figure C1).¹¹

Finally, the durability of effects provides added confidence. We would expect survey responses to be most influenced by experimenter demand during or immediately following the intervention. Using two waves of surveys (midline conducted in 2019, and endline conducted in 2021) allows us to show that effects on officers' perceptions of community importance of GBV, and on male officers' own prioritization of GBV, persist up to a year after the intervention had ended.

Effects by Gender: To analyze whether the effects of the treatment on officer attitudes are significantly different for male and female officers, we estimate models pooled by officer gender, including indicators for officer gender and interaction variables between officer gender and treatment assignment (Appendix Table C4). We find largely similar effects by gender, except at endline, where effects of CPOP-G on officers' own prioritization of GBV persist for male officers but not women.

Effects Controlling for Baseline Levels: For the subset of male officers for whom we have baseline data on officer attitudes and beliefs. For this subset, we are able to estimate results controlling for baseline values. Appendix Table C5 shows that there is no substantive change to results when controlling for baseline values.

Effects on Reported Crime: Finally, we consider whether the "gender-inclusive" treatment (CPOP-G) changes the registration of gender-based crimes for purposes of investigation by the police. We do not find evidence of significant effects (Appendix Table C6). This is consistent with the findings of the coordinated 6-country RCT,

¹¹Note that these were the primary outcomes pre-registered for the evaluation of the coordinated multi-country trial of the community policing program, results of which are reported in Blair et al. (2021)

of which this study was a part, which finds null effects of the common (“gender-neutral”) community policing treatment arm on crime reports (Blair et al., 2021). Blair et al. (2021) discuss how implementation challenges such as “a lack of sustained buy-in from police leadership, frequent rotation of police leadership and their officers, and a lack of resources to respond to issues raised by citizens.” may drive these null results.

Officer Experiences and Processes of Change

We draw on interviews conducted with male and female officers in our experimental sample more than a year after the conclusion of the intervention to understand officers’ experiences of the intervention, and probe plausible mechanisms for the observed attitudinal change.

Interactions with the Opposite Sex

The CPOP-G intervention created an opportunity for male and female officers to work together on integrated teams. Interview responses suggest that working together with officers of the opposite sex was a novel experience: “Normally the lady constables do not take part in everyday police duties. It was a new opportunity to have worked with them.”¹² Moreover, several officers in the CPOP-G condition brought up the quotidian, casual interactions that were a by-product of working together. For instance, an officer mentioned “since we worked together, we would gather at the end of the day and discuss everything”,¹³ while another said “we were traveling together and our work was almost the same. We talked openly about the problems of the community.”¹⁴

Absent these interviews, we may have attributed the spillover to male officers largely to formal interactions among officers serving on the same community policing

¹²Male Officer, CPOP-G

¹³Female Officer, CPOP-G

¹⁴Female Officer, CPOP-G

team that were required by the intervention: the joint development of neighborhood policing plans, whereby officers had to discuss concerns brought up in forums to collectively devise a response strategy. However, interviews revealed that traveling to and from communities was an equally, if not more, important site of interaction for officers. Here, our qualitative interviews serve to “uncover processes that are invisible from a distance” (Levy Paluck, 2010).

A question that arises is whether simply inducing greater interaction with female officers, absent other components of the community policing intervention, could be sufficient to change male officers’ beliefs and attitudes. While we cannot test this formally, it is worth noting that several officers in the control and CPOP treatment conditions reported interacting with each other as a matter of routine, e.g. “I usually talk with ease with male colleagues. I don’t have any issue or hesitation in talking with them. We mostly talk [about matters] related to the police station”¹⁵, and “in normal routine I talk very easily with my female colleagues, [...]our conversation is about normal duty e.g. today my duty is at such and such place, here my work was tough - our talks are just like this.”¹⁶ To us, this suggests that it is not merely interaction between male and female officers, but rather interaction centered around the intervention, particularly the community forums in which female officers heard about the concerns of women in the community, driving the change we see in CPOP-G. Responses from male officers further support this interpretation, e.g.:

“After the forum, when the female constable approached us with her list of the female community members [issues], I noticed that most of the complaints were in regards to domestic violence.”¹⁷

“when all 3 of us would gather together to talk, the Lady constables would tell us of the issues women face. This included rape, violence and men harassing girls outside their colleges.”¹⁸

Moreover, the interactions between officers who were part of mixed-gender teams

¹⁵Female Officer, Control

¹⁶Male Officer, Control

¹⁷Male Officer, CPOP-G

¹⁸Male Officer, CPOP-G

in the CPOP-G intervention had some characteristics that scholars of inter-group contact consider key for achieving benefits of such contact (Pettigrew, 1998; Lowe, 2021; Mousa, 2020). Specifically, interactions took place in the context of cooperating on common goals of carrying out the intervention activities, and were sanctioned by leadership in the police force who recruited officers to join the teams. These aspects are likely to be absent from routine interactions between officers in the control and CPOP conditions, which take place in the context of gendered task-based segregation whereby male and female officers are unlikely to collaborate. As one female officer in the control group noted, “us females have to do our duties being inside, while the male constables also have to go outside, conduct raids, arrests, and physically take part in investigation, while we just have to sit here and do calls.”¹⁹

Change in Attitudes and Beliefs

Our survey measure captures how officers rank gender based violence in importance relative to other issues that the police can address, and their perception of how important it is to citizens in their communities. Why might officers’ own prioritization of GBV change? We speculate that this could happen due to the issue becoming more salient and top-of-mind when they hear female citizens raise it repeatedly at the forums (directly in the case of female officers and indirectly in the male officers’ case). The forum discussions could also provide officers with new information about the true prevalence of GBV, and/or the ways in which it impacts women’s lives, which makes them take it more seriously.

In the case of female officers, interviews suggest that the information about GBV brought up in women’s forums was not altogether “new” to them; as one female officer noted: “they were the common issues I knew of already.”²⁰ Meanwhile, male officers in CPOP-G convey a sense of genuine surprise at the prevalence and seriousness of domestic violence that they gleaned from their female colleagues’ accounts

¹⁹Female Officer, Control

²⁰Female Officer, CPOP-G

of the community forums, for instance a male officer noted that he “learned through the lady constable just how common and severe the problem with violence against women is.”²¹ A quote from another male officer also suggests that he updated his beliefs about the prevalence of GBV:

“I learned about unreported cases a lot through this program. These cases were quite common in our society but never seemed to get reported. This included harassment and disrespectful behavior towards women that were just walking down the street and violence/domestic violence. The male forums mainly brought up cases of theft and drug abuse.”²²

And another officer’s interview suggests learning about the impacts of such violence:

“We would get to know how distressed the women are. I had always assumed that domestic violence is something between the husband and wife, and is a non issue. However, now I understand how many women lose their lives because of this.”²³

For female officers who may already have been aware of the high prevalence of GBV in their communities due to their own lived experiences, hearing about it in the community forums may have merely increased its salience while it provided truly “new” information about prevalence and seriousness for their male colleagues. This is a possible explanation for the faster decay in effects for female officers, and is in line with existing evidence on the relative durability of treatment effects. In an extensive study of the persuasive effects of informational treatments, Coppock (2023) finds that the effects of treatments that provide new information or introduce “new considerations”, endure longer than those of treatments that work primarily by priming or framing, or “changing weights given to considerations.”

Gender Norms in Equilibrium

As we emphasize earlier, the CPOP-G intervention challenged norms of gender task-based segregation in the police by having female officers take on community-facing

²¹Male Officer, CPOP-G

²²Male Officer, CPOP-G

²³Male Officer, CPOP-G

tasks. This aspect of the intervention was brought up by nearly all officers – male and female – who participated in CPOP-G. As a female officer noted, “All members went into the field, and work was divided on the basis of career hierarchy, rather than sex.”²⁴ Multiple female officers also brought up how stepping into this role and taking on unfamiliar work boosted their confidence: “I think I have noticed a lot of changes in myself since joining the program. I was very afraid of talking to people but now I have developed the confidence I needed.”²⁵

At the same time, interviews also revealed the challenges and costs of women taking on work that is generally men’s domain. Multiple female officers spoke of the threat of harassment when venturing out in public: issues that women brought up in community forums were also personally felt by female officers. Importantly, many female officers pointed to the importance of being accompanied by their male colleagues for their personal security and safety:

“The existence of male staff makes the female staff feel more secure by deterring teasing and catcalling.”²⁶

“If a female member is alone, she does not feel as safe as she does with a male member, which is why my experience of working together was very useful and advantageous.”²⁷

“If the team has a male member, then the females also get security because if they go out alone, they have [abuses] hurled at [them]. If there is a male with the females, then people do not make such noises.”²⁸

To us, such observations point to the limits of changes in gendered norms that could be achieved through the intervention. While female officers certainly took on new roles in their work, that were arguably also personally transformative, other social gender roles, particularly men’s protective role, remained largely intact and

²⁴Female Officer, CPOP-G

²⁵Female Officer, CPOP-G

²⁶Female Officer, CPOP-G

²⁷Female Officer, CPOP-G

²⁸Female Officer, CPOP-G

possibly even gained heightened salience.²⁹

Discussion

Implications for Policy Design

Our paper contributes to debates in women's inclusion and "gender-responsive" policy, which often juxtapose approaches based on "separate spaces" against "integration" (Jassal, 2020). However in many settings social costs to integration are high and act as a constraint: as Bush and Prather (2021) note, in Tunisia: "biases against gender mixing represent a meaningful obstacle to women's participation." We provide clear evidence that moving beyond the binary is important, and that a combination of segregation and integration at different points in a policy process holds promise. In our study, creating a socially appropriate separate forum for women allowed them to voice their concerns to female police officers. Simultaneously, task-level integration in the police, essentially making male officers work together with these female officers, led to significant shifts in those male officer's beliefs. We show that when working with short-term policy changes that are unlikely to shift long-standing social norms, designing interventions to work within norms nevertheless holds promise.

Our study also contributes to the study of representative bureaucracy. Women remain starkly under-represented in policing in many contexts, and especially so in Pakistan. Our findings suggest that it is possible to reap some of the theoretical gains of increased descriptive representation without fundamentally altering the composition of the bureaucratic institution itself. Rather, by undoing task-based segregation and integrating existing bureaucrats – in this case women's officers – to work with their male colleagues in a joint team on in-field tasks, women's concerns gained greater salience among male bureaucrats. We do not consider such efforts to be an

²⁹This is consistent with evidence in Ahmad (2022) on how police-women's work is shaped by prevailing gender norms.

alternative to greater parity in representation, rather, we think there are complementary gains to be achieved from task-based integration, alongside efforts to improve representation.

A question for policy design is whether interventions that simply promote greater integration between female and male officers (without any citizen forums) could have similar benefits. Our study design precludes us from testing this directly. However, we think it is important to note that convening the forums raised the salience of GBV for female officers in the short term, absent which they may not have raised it with their male colleagues unprompted. Our qualitative evidence also speaks to the type and substance of contact induced by the intervention as being important for change in male officers' beliefs. In a similar vein: would integrated forums (where not proscribed by social norms) be equally effective at getting women's issues on the agenda? We are skeptical given studies that show women are disadvantaged in speaking in village assemblies in India, even when they are present (Parthasarathy, Rao and Palaniswamy, 2019). However, if this were indeed possible, and male officers were to directly hear from women, we would expect an even stronger effect.

Scope and Limits of Change

We document significant changes in officers' beliefs about citizens' prioritization of GBV, and their own views about its importance. Do such attitudes and beliefs "matter"? Attitudes and beliefs can be a critical link in the causal chain from reforms to changes in action in many settings, especially policing (Wang, 2015). Furthermore, bureaucrats' attitudes and beliefs are especially important for issues where there is high individual discretion (Michael et al., 1980; Shoub, Stauffer and Song, 2021). In Pakistan, police can decide whether to classify instances of GBV as "cognizable" or "non-cognizable" offenses, which has consequences for the subsequent investigation. While such discretion has clear legal basis in our setting, police in much of the world have tremendous discretion over how crimes, especially GBV, enter the legal system

(Bouhours and Daly, 2010; Hohl and Stanko, 2015). Officers' prioritization is also crucial in settings characterized by what Dasgupta and Kapur (2020) describe as bureaucratic overload, whereby "local bureaucrats are often heavily under-resourced relative to their responsibilities." (p.1316). Since men comprise an overwhelming majority of the police force, their attitudes and priorities may be especially key.³⁰. Furthermore if men are relatively empowered, they may be more able to act on their personally held attitudes, as Dhar, Jain and Jayachandran (2022) note: "because behavior change requires not just the desire but also the ability to act differently, the very fact of boys' and men's greater power in society makes it important to include them in interventions aimed at increasing girls' and women's power." (p.902).

Greater prioritization of GBV by police officers who interface with complainants is key for such cases being registered appropriately, investigated better, and increasing reporting rates in the long run. Yet, it is not enough on its own, and perhaps unsurprisingly, we do not detect any change in registered GBV crimes in our study. The officers we study are embedded in a larger command and control structure, and this program did not change broader institutional priorities. We think of our findings as illustrating a "bottom-up" process of priority shift among front-line bureaucrats in a hard setting. Yet unless officers are incentivized from "top" or provided resources and support, their ability to act on new priorities remains constrained.

³⁰In Pakistan only 2% of officers are women; in the United States 12% of sworn officers are women

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Appendix to Working Within Norms to Change Attitudes: Evidence from Gender-Inclusive Community Policing in a Segregated Setting

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A Study Background and Design

A.1 Ethical Considerations

The subject of field research ethics for questions of crime and policing, and researcher-police collaborations has received considerable scholarly attention. This study raises a set of ethical issues unique to researcher collaboration with the police, and also issues specific to the local context of Pakistan.

The study is motivated by a status-quo context of low citizen trust in police, and the presumed prevalence of gender-discriminatory attitudes among officers. At the same time, the intervention potentially increases citizens' interactions with these officers in several ways, including by design, through the conduct of police-citizen forums, and potentially as an unintended consequence, through increased surveillance of treatment communities by police. To mitigate the potential harm of increased negative interactions between citizens and police, researchers took the following measures:

- Ensured extensive training of all officers participating in the intervention. The training was designed in consultation with the a team of trainers from the premier Police Training College in Lahore. Training included guidelines for the police to focus discussions on community level problems only and avoid discussing individual people (especially those not in attendance) and personal problems
- Developed a clear protocol to guide decisions about ending researcher participation in response to certain police behaviors or public safety concerns, specifically there was agreement to cease holding community forums in case of reports of (a) any violence or threats at the community forums or (b) any instances of the police engaging in gaining any unlawful benefit, including accepting money to attend forums or register problems, or threatening individuals or groups in the community.
- Deployed a team of field monitors unaffiliated with the police to regularly meet with community forum participants, and visit study police stations to ensure that protocol was being followed throughout the length of the intervention. Note that the field monitors did not report any additional surveillance of study areas.

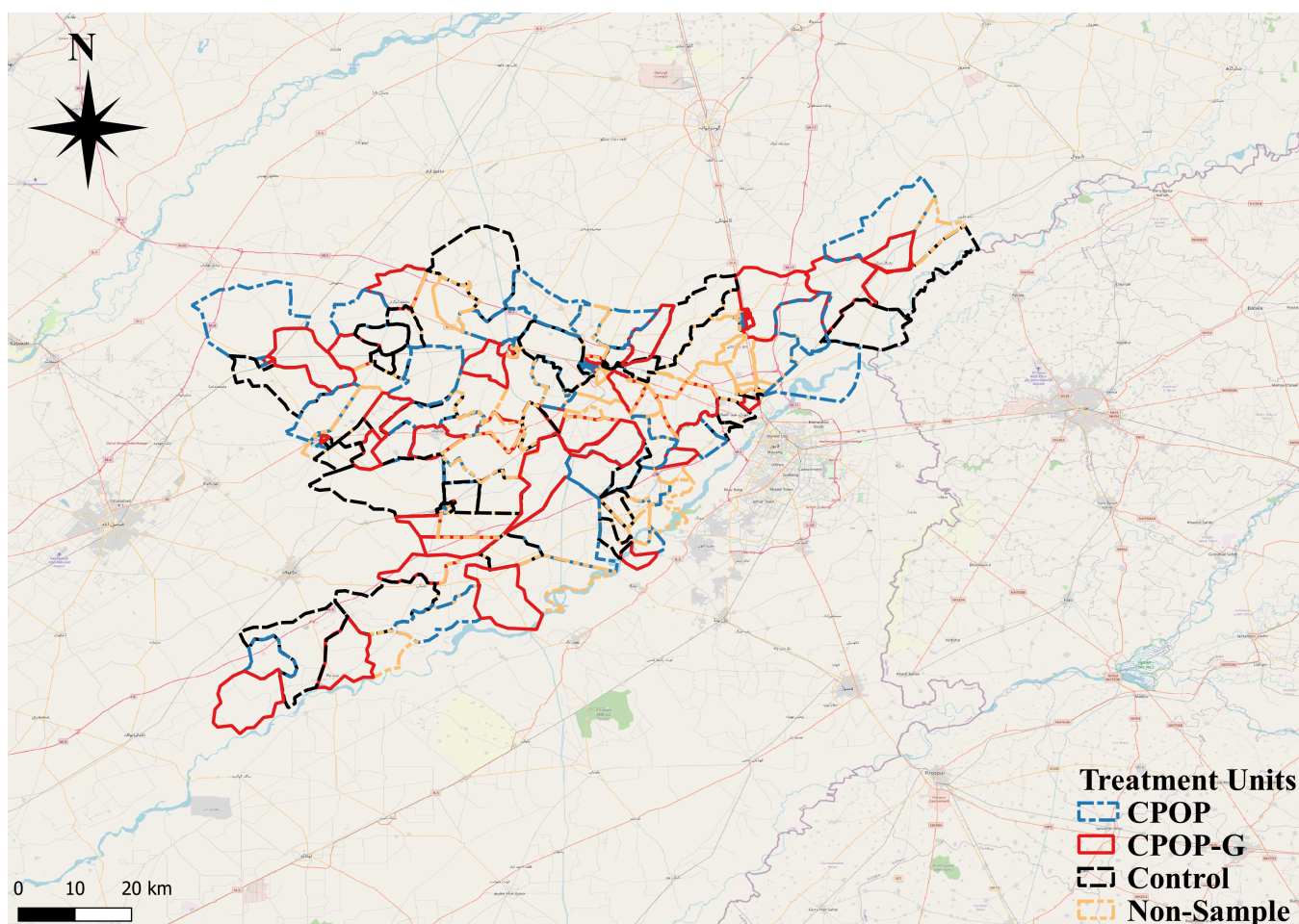
Next, this study, like many that focus on crime and justice, involved the collection and analysis of sensitive crime data. Beyond standard protocols of confidentiality and data protection, researchers did not collect any identifying information of community forum attendees as part of measuring attendance, and explicitly sought attendee consent for any photographs taken at community forums to minimize risk of attendees being targeted for attendance at the forums for any reason. The research team worked with the officer heading the IT department for the province to develop protocols for data sharing. The protocol included a member of the research team conducting analysis of some of the most sensitive data at the office of the inspector

general and retrieving only analysis results rather than the raw data.

The polarized political environment in Pakistan in 2018 at the start of the intervention created concerns about community forums being captured by particular political elites or becoming the subject of partisan divisions. To address this challenge the research team worked with the police to ensure town hall meetings were held in politically neutral locations to minimize this risk. This was done by randomly drawing locations at which community meetings were held in specific beats.

A.2 Study Site Map

Figure A.1: Study Site Map



Source: Sheikhupura Range Regional Police Office Administrative Records, 2018

Notes: Study districts of Sheikhupura and Nankana have a total of 150 beats. A beat is the lowest administrative unit for police in Punjab, Pakistan. The map shows beat boundaries and treatment assignments, arm as well as non-sampled beats. An average beat has a population of around 36,000 (ranging from 800 to 150,000 people), and an area of 68 sq km (ranging from 1 sq km to 350 sq km). The average density of beat in rural areas is 1400 persons per sq.km whereas it is 5700 persons per sq.km in urban areas.

A.3 Study Site Descriptive Statistics

Table A.1: Crime Statistics (2018)

Panel A: Total Crime per 100k Persons Province						
Districts	Mean	Mean	Std. Dev.	Min.	Max.	N
Nankana Sahib	442.1	323.9	113.4	167.5	823.1	36
Sheikhupura	316.6					
Panel B: Crimes against Property per 100k Persons Province						
Districts	Mean	Mean	Std. Dev.	Min.	Max.	N
Nankana Sahib	44.1	48.2	39.2	15	257	36
Sheikhupura	65.5					
Panel C: Crimes against Person per 100k Persons Province						
Districts	Mean	Mean	Std. Dev.	Min.	Max.	N
Nankana Sahib	45.3	36.7	8.7	23.7	58	36
Sheikhupura	49.5					
Panel D: Other Crimes per 100k Persons Province						
Districts	Mean	Mean	Std. Dev.	Min.	Max.	N
Nankana Sahib	352.8	238.9	77.5	126.7	518	36
Sheikhupura	201.1					

Source: Punjab Bureau of Statistics 2018

Notes: There are total 36 districts in the province of Punjab, Pakistan where our study districts are located; Crimes against property include theft (including vehicles theft), burglary, robbery (including forcible snatching of vehicles) , dacoity , attempts at all these offences (e.g. attempted robbery etc.) and extortion ; Crimes against person include murder, assault, attempted murder, kidnapping for ransom, and attempts at all these offences. Other crimes include local and special laws. Table shows that Statistics for our study district lie within 1 SD of provincial averages.

A.4 Balance Across Units

Table A.2 shows that our study beats across all 3 experimental conditions are balanced on key pre-treatment beat-level characteristics such as population density, baseline crime rate and within-beat neighborhood composition. Table A.3 shows balance on officers' attitudes measured pre-treatment in all three treatment conditions. Panel A shows balance on outcome variables of officers' perception of citizen prioritization of GBV, and their own prioritization of GBV. Panel B shows balance on a set of other attitudinal measures. ¹

Table A.2: Beat-Level Attributes at Baseline (Pre-Treatment)

	(1) Control	(2) CPOP	(3) CPOP-G	(4) (1) vs. (2), p-value	(5) (1) vs. (3), p-value	(6) (2) vs. (3), p-value
Beat Population (persons)	34997.53	27706.92	30265.10	0.71	0.46	0.74
Beat Area (sqkm)	39.14	40.87	40.72	0.21	0.66	0.16
Beat Density (persons per sqkm)	2598.86	3360.87	2917.14	0.54	0.43	0.51
Crimes against property in 2017	16.23	17.31	16.72	0.80	0.27	0.28
Crimes against person in 2017	6.22	6.19	6.39	0.71	0.53	0.55
Total Mauza Count	10.49	11.08	9.64	0.15	0.19	0.10

Notes: A beat is the lowest administrative unit for police in Punjab, Pakistan. Crimes against property include theft (including vehicles theft), burglary, robbery (including forcible snatching of vehicles), dacoity, attempts at all these offences (e.g. attempted robbery etc.) and extortion; Crimes against person include murder, assault, attempted murder, kidnapping for ransom, and attempts at all these offences. Other crimes include local and special laws. Mauza or Revenue Village is the lowest census enumeration unit within each beat.

Table A.3: Officers' Beliefs and Attitudes at Baseline (Pre-Treatment)

	(1) Control	(2) CPOP	(3) CPOP-G	(4) (1) vs. (2), p-value	(5) (1) vs. (3), p-value	(6) (2) vs. (3), p-value
Panel A: Main Outcomes						
Pr(Officers report GBV among citizens' top-3 concerns)	0.72	0.69	0.70	0.68	0.77	0.90
Pr(Officers report GBV among their own top-3 concerns)	0.53	0.63	0.50	0.22	0.84	0.46
Panel B: Officer Attitudes						
Empathy Index	-0.33	0.08	0.03	0.15	0.18	0.74
Police Officer Abuse Index	0.04	0.13	0.02	0.88	0.98	0.85
Accountability Index	-0.04	-0.01	-0.07	0.54	0.81	1.00
Corruption Index	-0.05	0.00	-0.01	0.74	0.67	0.53
Overall Police Officer Attitude Index	-0.21	0.04	-0.00	0.46	0.43	0.71
Trust on Info from Citizen	-0.10	0.30	-0.07	0.25	0.34	0.27

Notes: Please see Appendix D for details of construction of the attitudinal indices and component survey questions. Total sample at the baseline: in CPOP 35 Male Upper Subordinates; 30 Male Upper Subordinates in CPOP-G; 32 Male Upper Subordinates in Control; 41 Male Upper Subordinates in Non-Sampled Beats. Upper Subordinate are of the rank Sub-Inspector or Assistant Sub-Inspector (SI/ASI) or Under Training Sub-Inspector or Assistant Sub-Inspector (TSI/TASI).

¹Note that the sample for any pre-treatment officer level comparisons is restricted to male officers since female officers were not surveyed at baseline.

B Intervention Details

B.1 Officer Selection Criteria for CPOP

- 1 Upper Sub-ordinate of the rank ASI/SI or Under Training ASI/SI for each treatment beat
- Those SI/ASIs should be selected who are already assigned the same beats by Station House Officer (SHO)
- 1 Lower Sub-ordinate of the rank Head Constable or Constable for each treatment beat
- No selected officer should work in more than one beat. For multiple beats within a Police Station, different ASI/SIs and C/HC should be selected. Same officer can only be selected if and only if the number of available ASI/SIs are less than the number of required ASI/SIs
- Officers should be between the age of 30 to 45 years old. Preference should be given to the young officers
- Officers should at least have a Bachelor's Degree
- They should be reputable among the community with no ongoing disciplinary charges against them
- Should have displayed willingness to work in the program beats

B.2 Officer Training

The community policing training program was developed by a team consisting of an experienced senior police officer, the Chief Law Instructor of the Police Training College in Chung, Lahore, and a set of master trainers from the training college. ²

The training program consisted of the following components:

- **Component 1:** A three-day (8 hours per day) in-house training session that included the following:
 - Day 1: Introduction to community policing and the difference between community policing and reactive policing, and a refresher around existing police rules.
 - Day 2: Introduction to SARA and problem solving in policing. This module used caselets to teach problem solving techniques and drew on the

²The Police Training College in Lahore is one of the oldest police training institute in the country. It is considered the premier training college in Punjab, providing training to field officers and senior police leadership in various aspects of policing.

refresher on police rules to discuss how problem-oriented actions can be implemented within the existing set of rules.³

- Day 3: Step-by-step training of operationalizing monthly town hall meetings at the beat level.
- **Component 2:** A one-day practical module delivered on Day 4 where officers were instructed to go to a pilot beat in their district that did not fall within the experimental beats and implement what they had learnt. This included:
 - Conducting a community forum meeting
 - Formulating a community policing plan and devising response strategies
 - Participating in a debrief session led by the trainers, to reflect on the effectiveness of the strategies used to engage the community and the strengths and weaknesses of their proposed response plans

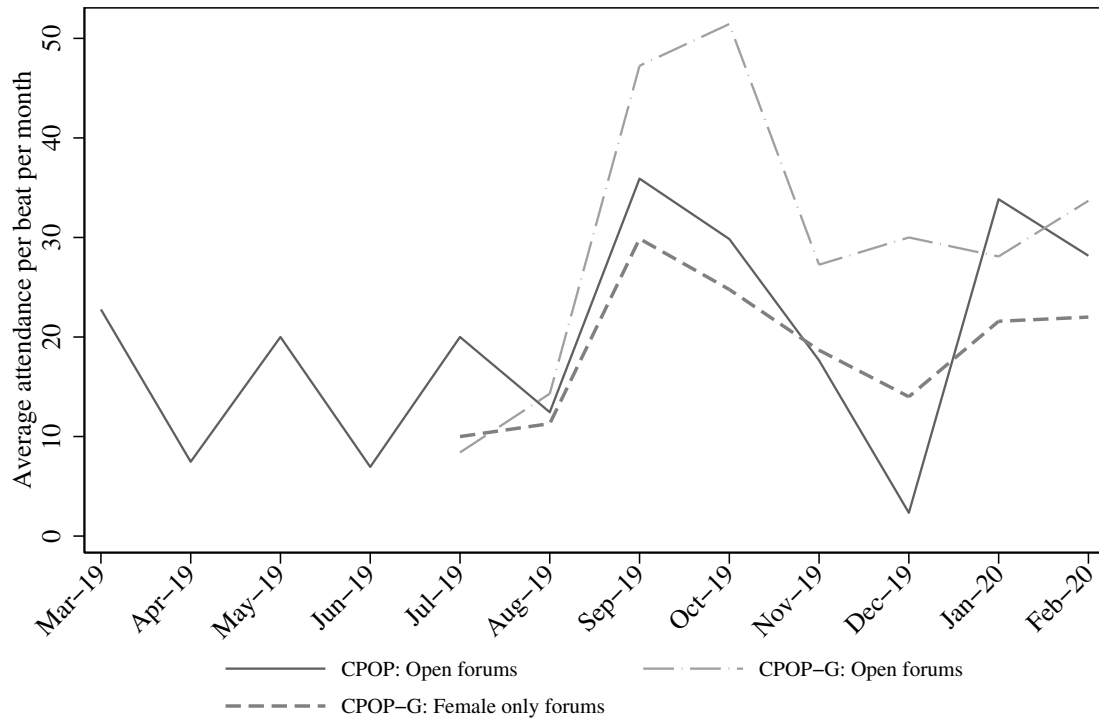
The content and format of the training was piloted in Kasur (a district in the same region that was not included in the study). Following the pilot training, feedback from the field officers of Kasur district was incorporated to modify training components. In the study districts, training for DBU officers assigned to treatment beats was conducted at the district level in classes of 20 trainees that were taught by a team of two instructors from the Police Training College in Chung. After every training session, the trainers assessed the training cohort using a feedback form. Trainees who were assessed to be relatively lacking in problem solving capacity were identified and excluded from the program.

B.3 Forum Attendance

In this section, we provide details on attendance at the community forums and attendee characteristics. Figure B.1 shows average monthly attendance at open forums and women-only forums held in beats assigned to the CPOP and CPOP-G treatments. Figure B.2 shows the educational attainment of male and female forum attendees; Figure B.3 and Figure B.4 shows male and female attendees' occupational status respectively.

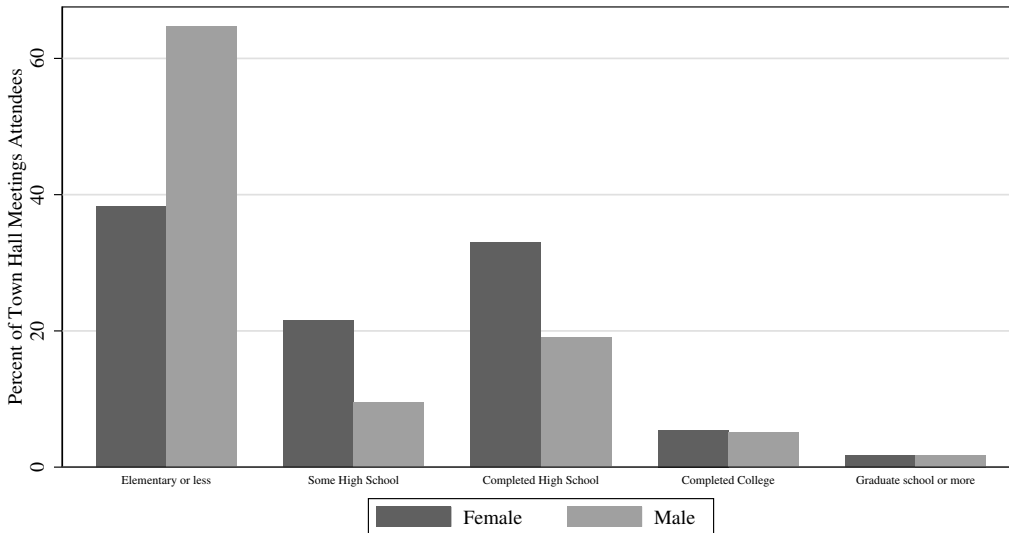
³The training materials included case studies developed in close coordination with the Chief Law Instructor. The research team adapted case templates from the US Department of Justice's Office of Community-Oriented Policing Services' case studies and their Model Curriculum Module 4 as described in Sampson & Scott (2000). The case studies were adapted to focus on the most frequent kinds of events in our study area based on input from the local police.

Figure B.1: Average Monthly Forum Attendance by Treatment



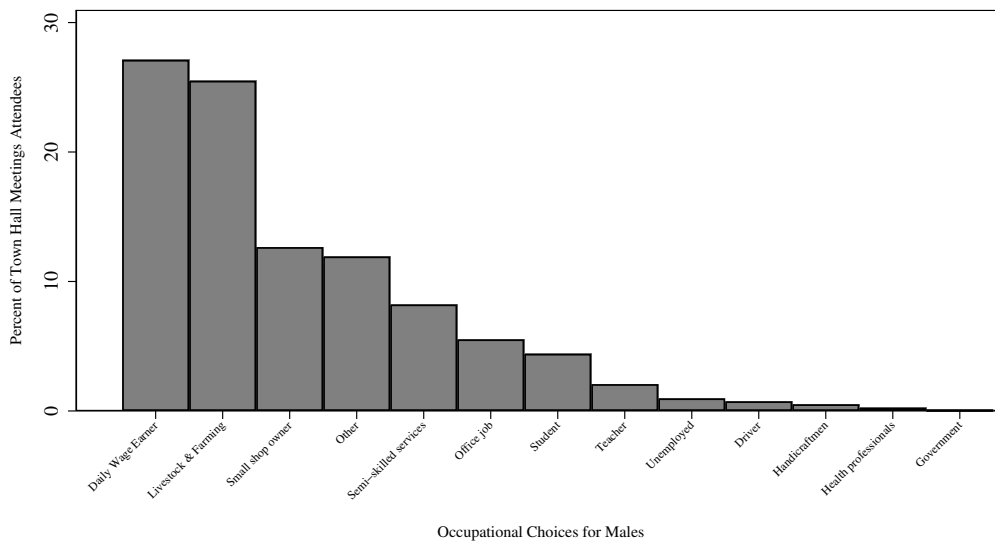
Source: Police administrative records of the monthly community forums (Feb2019–Feb2020).
Notes: Line plot shows average monthly attendance per forum per beat. Total attendance: Open Forums (CPOP): 2984 men and 23 women in 412 forums; Open Forums (CPOP-G): 2034 men and 0 women in 208 forums; All-Women Forums (CPOP-G) 1146 women in 188 forums. Forums were held between Feb 2019 and Feb 2020 in CPOP beats, and between July 2019 and Feb 2020 in CPOP-G beats. CPOP-G intervention was started in July 2019.

Figure B.2: Attendees' educational attainment, by gender



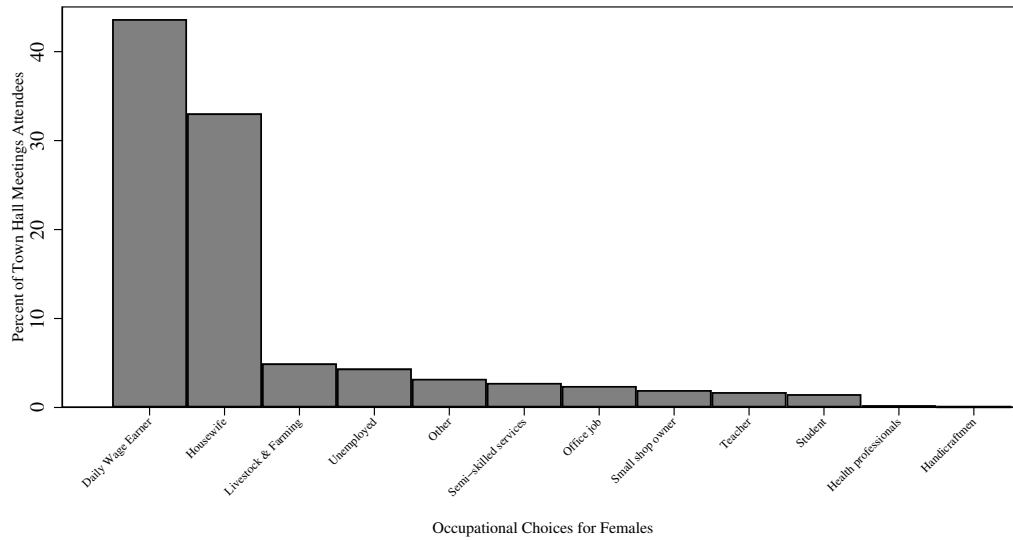
Source: Police administrative records of the monthly community forums (Feb2019–Feb2020).
Notes: Total attendance: Open Forums (CPOP): 2984 men and 23 women in 412 forums; Open Forums (CPOP-G): 2034 men and 0 women in 208 forums; All-Women Forums (CPOP-G) 1146 women in 188 forums. Forums were held between Feb 2019 and Feb 2020 in CPOP beats, and between July 2019 and Feb 2020 in CPOP-G beats.

Figure B.3: Male attendees' occupational choices



Source: Police administrative records of the monthly community forums (Feb2019–Feb2020).
Notes: Total attendance: Open Forums (CPOP): 2984 men in 412 forums; Open Forums (CPOP-G): 2034 men in 208 forums; Forums were held between Feb 2019 and Feb 2020 in CPOP beats, and between July 2019 and Feb 2020 in CPOP-G beats.

Figure B.4: Female attendees' occupational choices



Source: Police administrative records of the monthly community forums (Feb2019–Feb2020).
Notes: Total attendance: Open Forums (CPOP): 23 women in 412 forums; All-Women Forums (CPOP-G) 1146 women in 188 forums. Forums were held between Feb 2019 and Feb 2020 in CPOP beats, and between July 2019 and Feb 2020 in CPOP-G beats.

C Additional Analysis

C.1 Forum Level Outcomes, Dropping Outlier

We estimate the results on forum outcomes presented in Table 5 dropping an outlier beat from the sample and do not find any changes to our estimates

Table C.1: Identification of Gender-Based Violence as a Problem, by treatment arm and forum type

	Pr(Gender based concern)		
Panel A: Pr(Gender based concern)			
CPOP-G vs. CPOP	0.102*** (0.020)		
Open forums in CPOP-G vs. Open Forums in CPOP		0.003 (0.016)	
All Women Forums in CPOP-G vs. Open forums in CPOP-G			0.252*** (0.030)
Constant	0.014 (0.015)	-0.003 (0.019)	0.069** (0.012)
Total clusters	71	71	71
N	1,525	1,177	802
R ²	0.055	0.043	0.144
Panel B: Share of concerns that are gender based			
CPOP-G vs. CPOP	0.191*** (0.050)		
Open forums in CPOP-G vs. Open Forums in CPOP		-0.005 (0.034)	
All Women Forums in CPOP-G vs. Open forums in CPOP-G			0.333*** (0.093)
Constant	0.124 (0.107)	0.007 (0.042)	0.333*** (0.046)
Total clusters	71	71	71
N	106	71	70
R ²	0.289	0.507	0.447

Notes: * $p < .1$; ** $p < .05$; *** $p < .01$. Robust standard errors are clustered at the beat level. GBV includes harassment of women, domestic violence and child abuse. 36 CPOP, 35 CPOP-G Beats. Panel A estimates show gender differences in probability that forum attendees in CPOP-G beats report a GBV concern. Panel B estimates show differences in total share of GBV concerns reported by a forum type within a beat

C.2 Results with errors clustered at beat-level

For our analysis of officer-level outcomes in the main paper, we report results with errors clustered at the police-station level, the level at which police officers were recruited to participate in the intervention, which is the more conservative approach. Here we show that the results remain substantively unchanged when we cluster standard errors at the beat-level (the unit of randomization)

Table C.2: Officer Beliefs about Citizens' Priorities

Pr(Officer Ranks GBV Among Top 3 Citizen Priorities)		
Panel A: Female Officers		
	Midline Only	Endline Only
CPOP	0.083 (0.123)	0.023 (0.139)
CPOP-G	0.550 ^{***} (0.117)	0.322 ^{**} (0.142)
Constant	0.640 ^{**} (0.310)	0.122 (0.239)
CPOP-G vs CPOP (t-test value)	4.233	2.417
CPOP-G vs CPOP (p-value)	0.000	0.018
Control means	0.5	0.444
Total clusters	108	108
N	100	100
R ²	0.440	0.328
Panel B: Simple Differences (Male Officers Only)		
CPOP	-0.111 (0.093)	-0.062 (0.105)
CPOP-G	0.386 ^{***} (0.084)	0.203 ^{**} (0.099)
Constant	0.821 ^{***} (0.202)	0.562 ^{***} (0.181)
CPOP-G vs CPOP (t-test value)	6.090	2.870
CPOP-G vs CPOP (p-value)	0.000	0.005
Control means	0.485	0.441
Total clusters	108	108
N	200	205
R ²	0.327	0.160

Notes: (1) * $p < .1$; ** $p < .05$; *** $p < .01$. (2) Robust standard errors are clustered at the beat level. (3) The outcome variable measures the probability that an officer reports gender-based violence (sexual assault, domestic violence or child abuse) among any one of the top 3 public safety concerns according to citizens (4) Column 1 shows regression results from midline; Column 2 shows estimates from endline. Details on survey questions and construction of outcome measures are provided in Appendix D.

Table C.3

Pr(Officer Reports GBV Among Top 3 Own Priorities)		
Panel A: Simple Differences (Female Officers Only)		
	Midline Only	Endline Only
CPOP	-0.055 (0.135)	-0.048 (0.143)
CPOP-G	0.434*** (0.124)	-0.052 (0.145)
Constant	0.546** (0.249)	0.639** (0.273)
CPOP-G vs CPOP (t-test value)	4.191	-0.032
CPOP-G vs CPOP (p-value)	0.000	0.975
Control means	0.444	0.528
Total clusters	108	108
N	100	100
R ²	0.396	0.273
Panel B: Simple Differences (Male Officers Only)		
CPOP	0.027 (0.087)	0.209** (0.095)
CPOP-G	0.385*** (0.093)	0.368*** (0.086)
Constant	0.280 (0.299)	0.155 (0.234)
CPOP-G vs CPOP (t-test value)	4.123	1.851
CPOP-G vs CPOP (p-value)	0.000	0.066
Control means	0.333	0.265
Total clusters	108	108
N	200	205
R ²	0.240	0.250

Notes: (1) * $p < .1$; ** $p < .05$; *** $p < .01$. (2) Robust standard errors are clustered at the beat level. (3) The outcome variable measures the probability that an officer reports gender-based violence (sexual assault, domestic violence or child abuse) among any one of the top 3 public safety concerns according to themselves (4) Column 1 shows regression results from midline; Column 2 shows estimates from endline. Details on survey questions and construction of outcome measures are provided in Appendix D.

C.3 Effects by Officer Gender

We present results on a pooled sample of male and female officers, using the following regression specification:

$$Y_{i,t=1} = \beta_0 + \beta_1 CPOP_i + \beta_2 CPOP_G_i + \delta_0 Female_i + \delta_1 (Female_i * CPOP_i) + \delta_2 (Female_i * CPOP_G_i) + \pi Y_{i,t=0} + \sigma_s + \varepsilon_I \quad (1)$$

where $i=1,2,\dots,N$ indexes beats, β_i is the dummy variable where $\beta_i=1$ if it's a treatment beat and 0 if it's a control beat. The gender dummy, $\delta_0=1$ for female officers. $\delta_i * CPOP_i/CPOP-G_i$ is the interaction term of between and gender dummy and treatment dummy variable with δ_i giving the differences in the outcome variable for female officers as compared to those of male officers.

We estimate the total treatment effect by testing the following linear combination:

$$\beta_i + \delta_i = 0$$

where $i=1,2,\dots,N$

Table C.4: Main Results, Pooled Across Male and Female Officers

	Beliefs About Citizen Priorities		Officers' Own Priorities	
	Midline Only	Endline Only	Midline Only	Endline Only
Intercept	0.75*** (0.07)	0.21*** (0.05)	0.30*** (0.06)	0.27*** (0.05)
CPOP	-0.12 (0.08)	-0.02 (0.06)	0.04 (0.08)	0.10 (0.06)
CPOP-G	0.37*** (0.09)	0.18* (0.09)	0.35*** (0.08)	0.23* (0.09)
Officer Gender (Female=1)	-0.01 (0.09)	0.08 (0.08)	0.11 (0.06)	0.24* (0.11)
Officer Gender (Female=1) X CPOP	0.15 (0.11)	0.06 (0.14)	-0.06 (0.11)	-0.11 (0.15)
Officer Gender (Female=1) X CPOP-G	0.07 (0.10)	0.05 (0.11)	0.06 (0.12)	-0.20 (0.19)
Total Effect of CPOP on Female Officers	0.03 (0.11)	0.05 (0.11)	-0.02 (0.12)	-0.01 (0.14)
Total Effect of CPOP-G on Female Officers	0.44*** (0.11)	0.23* (0.10)	0.40*** (0.11)	0.03 (0.13)
R ²	0.28	0.12	0.23	0.14
Adj. R ²	0.20	0.02	0.14	0.04
DF Resid.	23.31	23.31	23.31	23.31
N	296	296	296	296

Notes: (1) * p < .1; ** p < .05; *** p < .01. (2) Robust standard errors are clustered at the police station level. (3) The outcome measures are the probability that the officer reports gender-based violence among one of the top 3 public safety concerns for citizens in their beat (Columns 1-2) and the probability that the officer reports gender based violence among their own top 3 public safety concerns (Columns 3-4). (4) Columns 1 and 3 report results at Midline; Columns 2 and 4 report results at Endline. (5) Total treatment effect estimates are calculated as the linear combination of coefficient of each treatment arm "CPOP/CPOP-G" and its interaction with gender dummy "Gender (Female=1) X CPOP/CPOP-G"

C.4 Effects Controlling for Baseline (Male Officers Only)

Table C.5: ANCOVA Results on Main Outcomes (for Male Officers only)

	Beliefs About Citizen Priorities				Officers' Own Priorities			
	Midline	Baseline	Endline	Baseline	Midline	Baseline	Endline	Baseline
CPOP	-0.130 (0.108)		-0.038 (0.146)		-0.049 (0.108)		0.259** (0.119)	
CPOP-G	0.397*** (0.105)		0.248* (0.146)		0.421*** (0.145)		0.453*** (0.114)	
Citizen Priority-Baseline	0.344*** (0.107)		0.118 (0.165)					
Officer Priority)-Baseline					0.120 (0.116)		0.061 (0.104)	
Constant	0.633*** (0.103)		0.590*** (0.179)		0.287*** (0.095)		0.120 (0.150)	
CPOP-G vs CPOP (t-test value)	5.964		2.236		3.815		1.305	
CPOP-G vs CPOP (p-value)	0.000		0.028		0.000		0.196	
Total clusters	27		27		27		27	
N	97		102		97		102	
R ²	0.544		0.271		0.384		0.378	

Notes: (1) * $p < .1$; ** $p < .05$; *** $p < .01$. (2) Robust standard errors are clustered at the police station level. (3) The outcome measures are the probability that the officer reports gender-based violence among one of the top 3 public safety concerns for citizens in their beat (Columns 1-2) and the probability that the officer reports gender based violence among their own top 3 public safety concerns (Columns 3-4) (4) Columns 1 and 3 show results at midline, controlling for baseline level beliefs; columns 2 and 4 show results at endline, controlling for baseline level beliefs. (5) Total sample: CPOP 33, CPOP-G 34, Control 35 male upper subordinates; (6) Upper Subordinate are males of the rank SI/ASI/TSI/TASI

C.5 Registered Crimes

Table C.6: Effects on Gender Based Crime Reports using Administrative Crime Data

	Crimes against Property and Person				All Crimes			
	Midline	Baseline	Endline	Baseline	Midline	Baseline	Endline	Baseline
Intercept	-0.32 (0.36)		-0.74** (0.21)		0.10 (0.58)		-0.76* (0.33)	
CPOP	-0.21 (0.20)		-0.03 (0.19)		-0.36 (0.26)		-0.05 (0.29)	
CPOP-G	-0.16 (0.20)		-0.04 (0.16)		-0.15 (0.29)		0.01 (0.26)	
GBV as % of crimes against property and person (Baseline)	0.21* (0.11)		0.06 (0.08)					
GBV as % of all crimes (Baseline)					0.27 (0.16)		0.06 (0.13)	
Total Clusters	108		108		108		108	
N	108		108		108		108	
R ²	0.36		0.42		0.31		0.40	

Notes: * $p < .1$; ** $p < .05$; *** $p < .01$. Robust standard errors are clustered at the beat level. The outcome variable is gender-based crimes (sexual assault, harassment of women, domestic and child abuse) as a proportion of reported crimes from a particular beat. Column 1 reports estimates after excluding "Other Crimes" including Local and Special Laws from the denominator. Column 2 reports estimates with all reported crimes in the denominator. The classification of crimes follows classifications in administrative data shared by the police. The baseline period covers January 2018 till January 2019; midline period covers February 2019 till March 2020, Endline period covers April 2020 till April 2021.

C.6 Experimenter Demand Effects

We consider the possibility of results being driven by experimenter demand, enumerator effects, or social desirability bias for our two key outcome types: 1) issues raised at community forums, 2) officer attitudes and beliefs.

C.6.1 Issues Raised at Forums

We consider the possibility that female police officers conducting women-only community forums purposely steered the discussion towards gender-based violence rather than it arising organically from the female attendees. If the conversation was indeed inorganic and police drove it, we think that police would steer away from issues which are the purview of local government rather than police. This was manifestly not the case, “municipal issues” come up at least as often as GBV in women-only forums (Figure X in manuscript). Our qualitative interview quotes also reveal some frustration among officers about attendees bringing up the issues which police can do nothing about, which we would not expect if the officers were driving the discussion. For instance, a female officer says:

“A majority of the women who attended talked about problems that had no relevance to the police such as lack of schools for girls, family planning, financial struggles. Problems such as theft, robbery and other crimes were identified by very less people”

The same officer, when asked about her opinion about the effectiveness of the program was pessimistic and said,

“A factor to be considered was how most of the issues identified by members of the community were problems not relevant to the police eg. power outages, road maintenance and drainage do not fall under the work of the police.”

Another female officer notes,

“In these forums, most females told household problems for eg. their husband and mother-in-law physically abusing them. Some females reported that our young people are addicted to drugs, some reported the problem of uncleanliness in neighborhoods, some females reported the problem of high school fees, and some reported the problem of non-availability of gas.”

Another female officer notes:

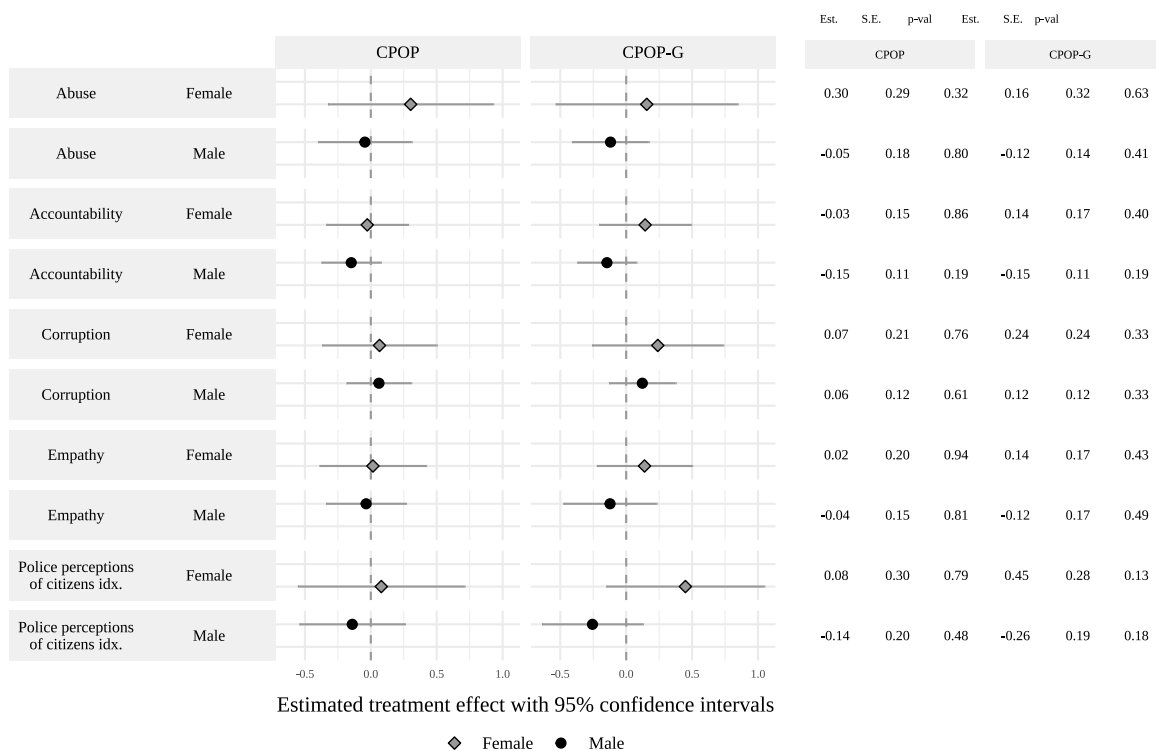
“People that approached the forum had very important issues to discuss. Things like no clean water being available to drink, dirty water in general, however these issues were ones we could not solve.”

These quotes from interviews conducted nearly 2 years after the intervention forums took place track with the high frequency of “municipal issues” reported in the police officers’ logs of problems raised at women-only forums. and give us confidence that 1) the conversations were organic and not simply steered by officers in a direction that would track with the focus of the intervention (problems that could reasonably be addressed by the police) and 2) the administrative logs of problems accurately reflect the forum discussions.

C.6.2 Officer Beliefs and Attitudes

We examine whether the intervention shifts male and female officers' self reported beliefs and attitudes on a set of measures closely related to the explicit goals of the community policing program and the themes emphasized in training. These include indices of attitudes and beliefs about police abuse, police corruption, police accountability, empathy towards citizens, and an overall attitudinal index. Appendix Figure C.1 shows null effects of both the CPOP and CPOP-G treatments on these outcomes for male and female officers at endline. Appendix D provides details of construction of the attitudinal indices and component survey questions.

Figure C.1: Treatment Effects of CPOP and CPOP-G on Officer Beliefs and Attitudes



Notes: Column 1 shows regression results at endline for CPOP; Column 2 shows endline results for CPOP-G. Details on survey questions and construction of outcome measures are provided in Appendix D. Total male police officers at endline: 205; total female police officers at endline : 100

D Survey Measures of Officer Attitudes and Beliefs

Table D.1 details the survey questions used to create each attitudinal index reported in Table 4: Officers' Beliefs and Attitudes at Baseline (Pre-Treatment). Table D.2 details the survey questions used to construct our outcome measures of officer beliefs and attitudes towards GBV

Table D.1: Variable Coding and Survey Questionnaire

<i>Variable name</i>	<i>Question text</i>	<i>Response options</i>	<i>Variable construction</i>
EMPATHY INDEX			
empathy_complaints	When people complain about the police, they usually have a good reason. Agree or disagree?	0-Strongly disagree; 1-Disagree; 2-Agree; 3-Strongly agree; 97-Do not know; 98-Refuse to answer	
empathy_reports	Most things that people report to the police are worth taking seriously. Agree or disagree?	0-Strongly disagree; 1-Disagree; 2-Agree; 3-Strongly agree; 97-Do not know; 98-Refuse to answer	
empathy_idx			Index of empathy_complaints; empathy_reports
OFFICER ABUSE INDEX			
hypothetical5_abuseself	Two police officers on foot patrol surprise a man who is attempting to break into an automobile. The man flees. They chase him for about two blocks before apprehending him by tackling him and wrestling him to the ground. After he is under control, both officers punch him a couple of times in the stomach as punishment for fleeing and resisting. DO YOU CONSIDER THIS BEHAVIOR TO BE SERIOUS MISCONDUCT?	0-Not at all serious; 1-Somewhat serious; 2-Serious; 3-Very serious; 97-Do not know; 98-Refuse to answer	

<i>Variable name</i>	<i>Question text</i>	<i>Response options</i>	<i>Variable construction</i>
hypothetical5_abuseother	Do MOST POLICE OFFICERS consider this behavior to be serious misconduct?	0-Not at all serious; 1-Somewhat serious; 2-Serious; 3-Very serious; 97-Do not know; 98-Refuse to answer	
abuse_idx			Index of hypothetical5_abuseself, hypothetical5_abuseother
ACCOUNTABILITY INDEX			
account_pol_matter	The police leadership takes citizen complaints about officers seriously. Agree or disagree?	0-Strongly disagree; 1-Disagree; 2-Agree; 3-Strongly agree; 97-Do not know; 98-Refuse to answer	
hypothetical2_punishment	If an officer in your agency engaged in this behavior and was discovered doing so, what if any discipline do YOU think WILL follow?	0-None; 1-Verbal reprimand; 2-Written reprimand; 3-Period of suspension without pay; 4-Demotion in rank; 5-Dismissal; 97-Do not know; 98-Refuse to answer	
hypothetical2_reportself	Do you think YOU would report a fellow police officer who engaged in this behavior?	0-Definitely not; 1-Probably not; 2-Probably yes; 3-Definitely yes; 97-Do not know; 98-Refuse to answer; 99-other	
hypothetical2_reportothers	Do you think MOST POLICE OFFICERS would report a fellow police officer who engaged in this behavior?	0-Definitely not; 1-Probably not; 2-Probably yes; 3-Definitely yes; 97-Do not know; 98-Refuse to answer	

<i>Variable name</i>	<i>Question text</i>	<i>Response options</i>	<i>Variable construction</i>
hypothetical3_punishment ⁴	If an officer in your agency engaged in this behavior and was discovered doing so, what if any discipline do YOU think WILL follow?	0-None; 1-Verbal reprimand; 2-Written reprimand; 3-Period of suspension without pay; 4-Demotion in rank; 5-Dismissal; 97-Do not know; 98-Refuse to answer	
hypothetical3_reportself	Do you think YOU would report a fellow police officer who engaged in this behavior?	0-Definitely not; 1-Probably not; 2-Probably yes; 3-Definitely yes; 97-Do not know; 98-Refuse to answer	
hypothetical3_reportothers	Do you think MOST POLICE OFFICERS would report a fellow police officer who engaged in this behavior?	0-Definitely not; 1-Probably not; 2-Probably yes; 3-Definitely yes; 97-Do not know; 98-Refuse to answer	
hypothetical5_punishment	If an officer in your agency engaged in this behavior and was discovered doing so, what if any discipline do YOU think WILL follow?	0-None; 1-Verbal reprimand; 2-Written reprimand; 3-Period of suspension without pay; 4-Demotion in rank; 5-Dismissal; 97-Do not know; 98-Refuse to answer	
hypothetical5_reportself	Do you think YOU would report a fellow police officer who engaged in this behavior?	0-Definitely not; 1-Probably not; 2-Probably yes; 3-Definitely yes; 97-Do not know; 98-Refuse to answer	
hypothetical5_reportothers	Do you think MOST POLICE OFFICERS would report a fellow police officer who engaged in this behavior?	0-Definitely not; 1-Probably not; 2-Probably yes; 3-Definitely yes; 97-Do not know; 98-Refuse to answer	

⁴This was collected in Uganda as a multiple response item.

<i>Variable name</i>	<i>Question text</i>	<i>Response options</i>	<i>Variable construction</i>
accountability_idx			Index of account_pol_matter, hypothetical2_punishment, hypothetical2_reportself, hypothetical2_reportothers, hypothetical3_punishment, hypothetical3_reportself, hypothetical3_reportothers, hypothetical5_punishment, hypothetical5_reportself, hypothetical5_reportothers

CORRUPTION INDEX

hypothetical2_corruptself	A police officer routinely accepts free meals, cigarettes, and other items of small value from merchants on his beat. He does not solicit these gifts and is careful not to abuse the generosity of those who give gifts to him. Do you consider this behavior to be serious misconduct?	0-Not at all serious; 1-Somewhat serious; 2-Serious; 3-Very serious; 97-Do not know; 98-Refuse to answer
hypothetical2_corruptother	A police officer routinely accepts free meals, cigarettes, and other items of small value from merchants on his beat. He does not solicit these gifts and is careful not to abuse the generosity of those who give gifts to him. Do MOST POLICE OFFICERS consider this behavior to be serious misconduct?	0-Not at all serious; 1-Somewhat serious; 2-Serious; 3-Very serious; 97-Do not know; 98-Refuse to answer

<i>Variable name</i>	<i>Question text</i>	<i>Response options</i>	<i>Variable construction</i>
hypothetical3_corruptself	A police officer stops a motorist for speeding. The officer agrees to accept a personal gift of half of the amount of the fine in exchange for not issuing a citation. Do you consider this behavior to be serious misconduct?	0-Not at all serious; 1-Somewhat serious; 2-Serious; 3-Very serious; 97-Do not know; 98-Refuse to answer	
hypothetical3_corruptother	A police officer stops a motorist for speeding. The officer agrees to accept a personal gift of half of the amount of the fine in exchange for not issuing a citation. Do MOST POLICE OFFICERS consider this behavior to be serious misconduct?	0-Not at all serious; 1-Somewhat serious; 2-Serious; 3-Very serious; 97-Do not know; 98-Refuse to answer	
corrupt_idx			Index of hypothetical2_corruptself, hypothetical2_corruptother, hypothetical3_corruptself, hypothetical3_corruptother
Overall Police Officer Attitude Index			
Overall Police Officer Attitude Index			Index of empathy_idx, abuse_idx, accountability_idx, corrupt_idx
Trust in Citizen Information			

<i>Variable name</i>	<i>Question text</i>	<i>Response options</i>	<i>Variable construction</i>
trust_information	Information that I receive from civilians is likely to be accurate. Agree or disagree?	0-Strongly disagree; 1-Disagree; 2-Agree; 3-Strongly agree; 97-Do not know; 98-Refuse to answer	In our construction of this variable we reverse the order for the responses to ensure that a higher value indicates a positive effect on police's trust in information from citizens.

Table D.2: Variable Coding and Survey Questionnaire

<i>Variable name</i>	<i>Question text</i>	<i>Response options</i>	<i>Variable construction</i>
Officer Beliefs About Citizen Concerns			
genderconcern_citizen_base1 genderconcern_citizen_mid1i genderconcern_citizen_end1i	Below is a list of public safety concerns. Please rank what you think CITIZENS IN YOUR BEAT consider to be the TOP THREE most important concerns in their community	Burglary or theft (without a weapon), Armed robbery, Murder, Vehicle accidents, Public intoxication, Sexual assault, Domestic abuse, Vehicle theft, Police abuse, Illegal guns, Illegal drug use, Child abuse, Dispute over land, Street crime, 97-Do not know; 98-Refuse to answer	Coded as a dummy variable =1 if officer reports sexual assault, domestic abuse or child abuse among the top 3 concerns
Officers' Own Concerns			
genderconcern_officer_base1 genderconcern_officer_mid1i genderconcern_officer_end1i	Below is a list of public safety concerns. Please rank what YOU YOURSELF consider to be the TOP THREE most important concerns in your beat	Burglary or theft (without a weapon), Armed robbery, Murder, Vehicle accidents, Public intoxication, Sexual assault, Domestic abuse, Vehicle theft, Police abuse, Illegal guns, Illegal drug use, Child abuse, Dispute over land, Street crime, 97-Do not know; 98-Refuse to answer	Coded as a dummy variable =1 if officer reports sexual assault, domestic abuse or child abuse among the top 3 concerns