

# We Don't Talk About Boys: Masculinity Norms Among Adolescents in Brazil

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## Abstract

Masculinity norms are cultural expectations around *men's* behaviors, such as the expectations that men should suppress their emotions or use violence. I measure masculinity norms among 2,608 adolescents in Rio de Janeiro and document large misperceptions about these norms: most boys and girls overestimate the share of peers that hold traditional views of masculinity. I examine whether a lack of horizontal communication or biased communication perpetuates misperceived norms through two field experiments in 25 schools. In the main experiment, I randomly assigned adolescents to a mediated discussion to learn peers' opinions about masculinity or a placebo discussion about recycling. Masculinity discussions reduce misperceptions about classmates' beliefs by at least 50% immediately, with effects persisting three weeks later. Discussions in which people self-select into speaking or are randomly asked to speak equally reduce misperceptions. This suggests that misperceptions were due to a lack of communication per se, as opposed to communication with only vocal types talking. In a second experiment, I find that adolescents do not talk about masculinity even with close peers as encouraging communication with chosen peers reduces misperceptions. Finally, I provide suggestive evidence that underestimating interest and comfort in these discussions might drive the lack of communication.

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# 1 Introduction

Men are considerably more likely than women to die from suicide or drug abuse (OECD, 2020), and commit over 90% of the world's homicides (UNODC, 2019). Social scientists have argued that cultural expectations around *men's* behaviors (i.e., masculinity norms) can, at least partially, explain these gaps (Jakupcak et al., 2002; Mahalik et al., 2007; Poteat et al., 2011; Wong et al., 2017). A central dimension of masculinity norms is *emotional restriction*, which prescribes that men are expected to hide their vulnerable feelings and emotions (e.g., *men should not cry*). Another dimension is *aggression*, which supports that men are expected to use violence (e.g., *men should use violence*). While a large body of work in economics studies gender norms about the appropriate behaviors of women, or women relative to men (e.g., *on the whole, men make better political leaders than women do*) (Alesina et al., 2013; Bertrand et al., 2015; Dhar et al., 2022; Bursztyn et al., 2020), we have little understanding of how people form their views about gender norms dictating men's behaviors.

Misperceived social norms – the existence of a wedge between one's perceptions of others' beliefs and others' actual beliefs – underlie the persistence of inefficient social equilibria in many contexts (Sherif, 1936; Postlewaite, 2011; Bicchieri, 2016; Bursztyn and Yang, 2022) and might be particularly relevant for masculinity norms. Overshooting others' beliefs in traditional masculinity might be harmful to men and society as men may suppress emotions or use violence if they think that is what others expect. Nevertheless, it remains an open question why misperceived norms persist.<sup>1</sup> One potential mechanism for persistence is the lack of horizontal communication (i.e., communication with peers) (Bursztyn et al., 2020), in which case understanding the barriers to communication might be relevant. Alternatively, horizontal communication might exist but be biased (Kitts, 2003). For example, it may be that the more masculine<sup>2</sup> people talk, and listeners may fail to correct for this selection when updating their beliefs. In addition, people might lie in public to adjust to the prevailing perceived norm (Kuran, 1998), or talk only with a selected group of peers, and fail to learn about beliefs in the broader population.

In this paper, I experimentally examine whether the lack of communication or biased communication contributes to the persistence of misperceived social norms in the context of masculinity norms. I use two field experiments ( $N = 2,608$ ) with 13 to 15-year-old boys and girls from 25 schools in Rio de Janeiro – known to have a strong masculine culture (Taylor et al., 2016). My main experimental manipulation tests for the lack of communication by encouraging a group discussion about masculinity. I then examine for biased communication by randomizing whether

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<sup>1</sup>Several theoretical models could explain the persistence of misperceived social norms, such as motivated reasoning (Bénabou and Tirole, 2016), confirmation bias (Nickerson, 1998), false consensus (Marks and Miller, 1987; Thaler, 2000), and pluralistic ignorance (Bicchieri, 2005). Empirical exceptions to the determinants of the persistence of misperceived social norms are Braghieri (2021) and Ho and Huang (2024), which discuss the role of social image concerns and silence, respectively.

<sup>2</sup>In this paper, I refer to people who agree more with traditional masculinity beliefs as "more masculine" or "traditionally masculine".

participants choose to speak or are randomly asked to speak in these discussions in a main experiment ( $N = 2,249$ ). In a supplementary experiment ( $N = 359$ ), I test whether more organic communication with close peers exists by allowing them to select their discussion peers.

Early adolescence is a key age for the formation of beliefs around masculinity, as boys enter manhood (Kimmel et al., 2004; Way, 2011; Lundgren et al., 2013; Kågesten et al., 2016). The school environment provides a unique context to study these norms, as it constitutes an important part of the socialization of adolescents, reinforcing gender norms by, e.g., organizing activities by gender (Thorne, 1993; Bhana and Mayeza, 2016; Rosen and Nofziger, 2019). In my setting, schools are coeducational, and students within a given classroom attend all classes and activities together, intensifying the formation of within-classroom norms. This design also adds to recent calls by academics and public speakers to listen to boys' perspectives about masculinity (Reeves, 2022; Way, 2024).

In the main experiment, I test whether a lack of horizontal communication is a source of misperceptions by randomly assigning teenagers from the same classroom into a one-time 15-minute discussion about masculinity or a control discussion about recycling. To further test for biased communication, I cross-randomized the type of masculinity discussion. In the first type (*Randomized*), I test for lying by randomly selecting the people asked to speak, and comparing their public with their private views about masculinity from a survey immediately before the discussion. In the second type (*Voluntary*), I test for self-selection by introducing a topic and letting teenagers speak as they want and comparing speakers' masculinity beliefs across the two arms. The control discussions were about recycling practices and were only *Voluntary*, i.e., teenagers would speak as they want. I surveyed students before, immediately, and three weeks after the discussion. Boys and girls participated in these discussions. The discussions were mediated by a male mediator, who asked students whether they agree and why with the statements *men who cry are weak* and *men should use violence to get respect if necessary*, which represent the *restrictive emotionality* and *aggression* domains of masculinity. The mediator did not express their opinions to isolate for the effect of learning their peers' opinions. On average, there were 13 people in the discussions.<sup>3</sup>

Teenagers have large misperceptions about boys' and girls' beliefs about masculinity. I asked teenagers to guess the share of boys and girls, separately, in their classroom who agree with the statements about crying and violence. I define misperceptions as the difference, in percentage points, between one's guess about the fraction of relevant school classroom peers who agreed with each statement and the actual fraction of relevant peers who agreed with the statement before the discussions. On average, boys in the control group think that 32% and 29% of other boys and 33% and 16% of girls in their classroom agree with the masculinity statements about crying and violence. In comparison, 10% and 16% of boys agree with the beliefs about crying and violence.

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<sup>3</sup>In each session, a maximum of 6 teenagers would speak to allow for a cleaner comparison between the *Voluntary* and *Randomized* arms. In the limit, if all participants spoke, we could expect effects to be similar by construction since they were randomized into these groups.

For girls, the agreement level is 5% for both statements. As a result, boys' misperceptions about other boys' beliefs are 22p.p. for crying and 13p.p. for violence, and boys' misperceptions about girls' beliefs are 28p.p. for crying and 11p.p. for violence. Girls' misperceptions are of similar magnitudes. Misperceptions about crying are likely larger because expressing emotions conflicts with expectations of male stoicism, and crying is usually a private behavior. Meanwhile, 80% of the public schools in Rio de Janeiro ([INEP, 2021](#)) have discussions about violence due to its importance as a public policy issue. Nevertheless, it is striking to find such large misperceptions, similar to the ones documented by [Bursztyn et al. \(2020\)](#), given peers interact daily in school.

The masculinity discussions reduce boys' and girls' misperceptions by at least 50% in the short-run ( $p < 0.001$ ), similarly across the *Randomized* and *Voluntary* arms. This supports the hypothesis that lack of communication drives misperceptions. Boys' *Voluntary* speakers are 25% more vocal than *Randomized* ones ( $p = 0.07$ ) based on a peer-reported measure of vocality, so misperceptions would likely be smaller if more vocal people already spoke about masculinity.

Why do the *Randomized* and *Voluntary* groups similarly affect misperceptions? The public opinions expressed among *Randomized* and *Voluntary* speakers are similar, so participants learn the same information in both groups. In addition, they use similar narratives in these two groups. Similar effects happen because boys in the *Randomized* group lie in public towards having less masculine views, compared to their private views, so misperceptions would be smaller if average boys spoke about masculinity organically. In addition, boys who speak in the *Voluntary* group are, on average, 57% less masculine than the boys who speak in the *Randomized* group, measured by their private views ( $p = 0.03$ ). In the pre-discussion survey, I find correlational evidence that the more masculine adolescents are also less vocal ( $p < 0.001$ ), suggesting that self-selection among the less masculine is not an effect of the discussion setting. In contrast, girls' speakers are equally masculine across the two groups, and they do not lie. These results support that lack of communication drives misperceived masculinity norms, given lying and self-selection indicate less masculine views would be expressed.

Three weeks after the discussions, treatment effects on reducing misperceptions persist, suggesting that the one-time masculinity discussions did not generate organic conversations about it. This indicates there are strong barriers to communicating about masculinity. This result sheds some light on the way norms are formed: in a social environment such as schools, encouraging communication among a random part of a social network (i.e., half a classroom) about a stigmatized topic is not sufficient to change perceived norms more broadly.<sup>4</sup>

I then show that the masculinity discussions make boys' beliefs about crying 50% less masculine compared to control boys immediately and three weeks after the discussion but do not reflect behavioral changes concerning emotional restriction and involvement in violence. The im-

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<sup>4</sup>Nevertheless, there is evidence that randomly selecting some students to participate in multiple hours of anti-conflict training (i.e., encouraging top-down communication) changes perceived social norms against conflicts at the school level ([Paluck et al. 2016](#)).

pacts on beliefs are consistent with the evidence that adolescents have more malleable preferences than adults (Kohlberg 1976; Markus and Nurius 1986). Girls' beliefs about masculinity do not change, but they were considerably less masculine compared to boys in the first place. The lack of behavioral effects suggests that updating behavior may take more time than updating beliefs or may need reinforcement to enact behavioral change, given the discussions happened once for 15 minutes. In this sense, longer-term interventions, as in Dhar et al. (2022), might be necessary.

In a supplementary experiment ( $N = 359$ ) with 13 to 15-year-old boys and girls across three public schools in Rio de Janeiro,<sup>5</sup> I test whether teenagers discuss their views about masculinity more organically with close peers. I relaxed two features of the main experiment: there was no mediator present all the time, and they could choose their discussion peers (i.e., it was not randomized). The discussions had a similar script and length as in the main experiment, and an average of 5 people. This design also allows for variation in the sex composition of the groups: 50% of them were single-sex. Everyone participated in the discussion within a classroom, and I randomized the outcome elicitation to be before or after it, allowing me to estimate causal effects.

I find that conversations with close peers about masculinity also reduce boys' misperceptions about boys and girls' misperceptions by about 50%. This indicates that teenagers do not discuss these topics even with close friends. Nevertheless, there is no evidence that boys' misperceptions about girls change, and they even slightly increase regarding violence. This increase is due to boys in boys-only group: their misperceptions about girls suggestively increase by 9p.p. for crying ( $p = 0.28$ ) and 11p.p. for violence ( $p = 0.27$ ), indicating a potential backlash effect, but they reduce once in the group with girls. In addition, boys' misperceptions about crying in boys-only groups reduce from 14p.p. to 3p.p. ( $p = 0.01$ ), while about violence it remains unchanged at 8p.p. We can interpret this as evidence against *locker room talks*: even when in boys-only group, boys' misperceptions do not increase, suggesting that they do not express very masculine views in such setting. Interestingly, boys who self-select to boys-only groups are significantly less masculine ( $p < 0.001$ ) than those in groups with girls. In contrast, for girls in girls-only groups, their misperceptions about boys suggestively decrease by 9p.p. for crying ( $p = 0.12$ ) and 7 p.p. for violence ( $p = 0.43$ ), suggesting girls' infer boys' views also by listening to other girls' opinions.

Taken together, my findings indicate that the lack of horizontal communication drives misperceived masculinity norms among adolescents. I do not find evidence of biased communication: peers who self-select into speaking are *less* masculine than average peers, and peers randomly asked to speak lie towards being *less* masculine. Misperceptions would then be smaller if there were broad natural communication about masculinity. Further, there is no evidence that communication with close friends exists. In addition, for boys, it seems to be relevant to include girls in these discussions, as they do not infer girls' views based on boys' views when in conversations with boys only. Nevertheless, engaging participants in a one-time short discussion does not seem to

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<sup>5</sup>The participating schools in the supplementary experiment are not the same as the ones in the main experiment, but schools' and students characteristics' are statistically indistinguishable (See Table B3).

generate broader discussions about masculinity. It seems to be important that adolescents learn new information first-hand.

One natural next step is understanding why adolescents do not talk about masculinity organically. In the supplementary experiment, I asked questions to measure the degree to which adolescents have miscalibrated views on how the conversation will go.<sup>6</sup> Before the discussion, participants indicated how comfortable and interested they thought they would be in the conversation and whether they would feel more connected with peers afterward. After the discussion, they indicated their realized impressions. Within-individual comparisons of these impressions indicate that boys underestimate interest in and comfort during these discussions by roughly 40% ( $p < 0.001$ ), and do not change their impressions about connection ( $p = 0.4$ ), and similarly for girls.

**Related Literature.** This paper makes several contributions. First, while a whole field in economics has studied norms about women's roles (e.g., Alesina et al. 2013; Dhar et al. 2022; Dean and Jayachandran 2019; Bursztyn et al. 2020), norms about men have received little attention. An exception is Baranov et al. (2023), but they study the historical origins of masculinity norms and not how people form their views about masculinity. In contrast, this paper provides causal evidence of how conversations with peers shape masculinity norms. Other papers have worked with boys and men to directly address aggressive behaviors (Blattman et al. 2017; Heller et al. 2017; Shah et al. 2023), but they do not measure its ties with different notions of masculinity. To the best of my knowledge, this work is the first randomized controlled trial in the economics literature to directly elicit norms and beliefs associated with men's roles.

Second, while a large body of work in economics uses simple information provision – a quantitative treatment – to correct misperceived norms (see Bursztyn and Yang 2022 for a review), they do not discuss where misperceptions come from. Bursztyn et al. (2020) provide suggestive evidence of a lack of communication as a source of misperceptions, but their design does not allow for causally testing this hypothesis. Recent work documents that limited attention to silent peers in a discussion increases misperceptions (Ho and Huang, 2024).<sup>7</sup> My main contribution is to provide causal evidence on the nature of communication – a qualitative treatment – as a source of misperceptions. I further disentangle whether the types of communicators matter. In addition, I document misperceived norms among adolescents, which is a crucial stage for brain development and belief formation (Steinberg 2014), in an environment that constitutes an important part of adolescents' social network (Paluck and Shepherd 2012). No work to date has studied the formation of misperceived norms in such contexts.

Finally, I contribute to a large literature on masculinity in other disciplines. Other social sciences have studied masculinity norms for several decades (Connell, 1987; Carrigan et al., 1985;

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<sup>6</sup>This exercise is inspired by Kardas et al. (2022), which show that miscalibrated expectations drive barriers to more intimate conversations among strangers.

<sup>7</sup>Webb (2024) finds that horizontal communication reduces discrimination against transgender, and rejects that a reduction in misperceptions about peers' discriminatory views drives these effects. Nevertheless, their misperception was small (5p.p.) to start with.

Thompson Jr and Pleck, 1986; Kimmel et al., 1989). A myriad of work has studied the relationship between masculinity and health outcomes (e.g., Mahalik and Rochlen 2006; Wong et al. 2017), aggressive behaviors (e.g., Bosson et al. 2009; Reidy et al. 2009; Cheryan et al. 2015), occupational choice (e.g., Cross and Bagilhole 2002). However, most of the evidence is correlational or comes from small-scale studies in the lab in developed countries. In low-income countries, public health scholars have documented positive results of interventions that engage men in discussions about masculinity to improve women's sexual health and prevent gender-based violence (e.g., Hossain et al. 2014, Gibbs et al. 2020, Pérez-Martínez et al. 2023). This work adds to this literature by measuring masculinity norms at scale among adolescents in a developing country. In addition, unlike existing work, this paper does not aim to sensitize participants about the potential consequences of masculinity. Instead, I encourage boys and girls to share their views and experiences regarding masculinity in a large-scale field experiment.

## 2 Adolescent (Misperceived) Masculinity Norms in Brazil

**Masculinity Norms.** Gender scholars use the terms *traditional masculinity*, *masculinity ideology*, *hegemonic masculinity* or *masculinities* to refer to the cultural expectations around attitudes, and beliefs that prescribe men's behaviors, inferiorizing "non-masculine" men or women (Connell, 1987; Kimmel et al., 1989; Connell, 2020). Despite the existence of many different masculinities, there is a common set of standards and expectations associated with the traditional male role (Pleck, 1995; Levant et al., 2007). Seven of these dimensions are avoidance of femininity, fear and hatred of homosexuals, self-reliance, aggression, achievement/status, non-relational attitudes toward sexuality, and restrictive emotionality. Social psychologists have developed an extensive measurement of traditional masculinity encompassing these dimensions (see Thompson Jr and Bennett 2015 for a review).

Developmental psychologists highlight that boys enter their teenage years resisting traditional masculinity by expressing their feelings of vulnerability and avoiding aggressive behaviors (Way, 2011; Way et al., 2014). However, as they transition into manhood in later adolescence, boys increasingly refer to the pressure to "man up" and avoid appearing feminine or gay, causing their emotionally expressive language to become more guarded. In essence, boys begin to disconnect from their emotions and others in pursuing "manhood". In this study, most boys are starting this transition, so it is a critical time to correct misperceptions about others' masculinity views, as they may suggestively increase further as boys become adults, especially if they do not discuss these expectations.

**Context.** In the Americas, 89% of homicide victims are men, affecting especially young black men (UNODC, 2023). In Latin America, the presence of organized crime and the recruitment of

youth into these groups further increases the risks of homicide. This research took place in Rio de Janeiro, where organized crime dominates 18% of its territory (Cruzado-RJ, 2024). Often, young men involved in gangs are desired as sexual partners by young women and admired by their male peers (Barker, 2005). Nevertheless, only a minority of young men become involved in these gangs. In-depth interviews among low-income black youth in Rio de Janeiro highlight the importance of engaging boys in programs that resignify notions of manhood by e.g. encouraging caregiving and normalizing emotional vulnerabilities as violence prevention tools (Barker and Loewenstein, 1997; Taylor et al., 2016).<sup>8</sup>

Adolescents in my sample are public school students and are more likely to come from economically disadvantaged backgrounds, be black, and live in favelas, compared to a representative sample from Rio DATA?. I selected 25 schools across the city. The selected schools are distributed across 10 of the 11 school districts in Rio, allowing for variation in socioeconomic characteristics in the schools' surroundings. For example, there are four schools located in favelas and three located in the wealthiest areas in the city. Nevertheless, students from schools outside of favelas are also likely to live in favelas VINICIUS??. Violence affects students' day-to-day life: in 2022, 25% of the municipal schools in Rio de Janeiro were closed for at least one day because of shootings in their surroundings.<sup>9</sup> Shooting episodes also caused four delays in my field operations.

Living in such an environment may further increase the pressures to conform to traditional masculinity norms. In this context, boys' traditionally masculine behaviors may be rewarded, both by other boys and girls. For example, boys may see guns as tools to achieve status and to demonstrate power and control over other men and women, especially combined with the existing social vulnerabilities in these areas (Barker, 2005). In addition, boys in focus groups I conducted often said that they were ashamed to share their vulnerable feelings with friends, as they thought their friends expected them to be tough and could punish them otherwise.

**Why Might We Expect Masculinity Norms to Exist in Equilibrium?** Misperceptions about same-generation peers' views might exist for multiple reasons. Adolescents might infer their peers' views based on views transmitted by parents (i.e., vertical transmission) (Bisin and Verdier, 2001; Giuliano, 2020), who might hold outdated views about masculinity. They could also infer traditional views of masculinity from (social) media channels (Paluck, 2009; Ferrara et al., 2012). This is especially relevant with the rise of the *Red Pill* ideology, which disseminate misogynous content and traditional views of manhood as being superior in social media channels.<sup>10</sup>

<sup>8</sup>Pioneer work on masculinities outside of the developed world started in Rio in the late 90s, giving birth to the world-leading NGO on masculinities *Instituto Promundo* – now split into *Equimundo* and *Promundo Brazil*. They have many masculinity-related programs around the world, including in the US, Mexico, Mozambique and Portugal.

<sup>9</sup><https://g1.globo.com/rj/rio-de-janeiro/noticia/2023/07/31/em-meio-a-tiroteios-mais-escolas-fecharam-no-1o-semestre-de-2023-do-que-em-todo-o-ano-passado.ghtml>. Accessed on September 11, 2024.

<sup>10</sup><https://g1.globo.com/al/alagoas/especial-publicitario/secom-secretaria-de-comunicacao-social/juntos-por-uma-alagoas-de-todos/noticia/2023/02/28/semudh-alerta-responsaveis-sobre-o-crescimento-do-consumo-de>

Alternatively, misperceived views about traditional masculinity norms may exist if these norms were optimal in the past, but no longer are in current days ([Nunn, 2022](#); [Gelfand et al., 2024](#)).

Regardless of the foundations of misperceived norms, one explanation for their existence in the long run is that people do not communicate their private views with a broad set of same-generation peers. In my sample, only 14% of boys talk to other boys and 7% to girls at school about what society expects of men.<sup>11</sup> When asked what they talk about in an open-ended question, 22% say they discuss that men should not be violent, especially against women. In addition, 26% talk about positive aspects of manhood, such as being responsible and hard worker. Thus, there seems to exist some social costs to discussing masculinity.

## 3 Experimental Design

My experiments aim to understand whether misperceived social norms persist because of a lack of communication or because of biased communication. To test for lack of communication, I randomly allocated participants to a mediated discussion session about masculinity or a control discussion about recycling. To test for biased communication with a broad set of peers, I cross-randomized whether participants self-selected (*Voluntary* group) or were randomly selected (*Randomized* group) to speak. In a supplementary experiment, I test for biased communication with close peers by allowing participants to select their discussion peers. This design also has a natural policy implication to correct misperceptions. Encouraging communication about a topic could be easily implemented and scalable through, e.g., school programs. In addition, it relates to recent calls by academics and public speakers to listen to boys in the debate about masculinity ([Reeves, 2022](#); [Way, 2024](#)).

### 3.1 Main Experiment

#### 3.1.1 Sample Selection

**School Selection.** I conducted the preregistered main experiment between June and October 2022. I coordinated with my partner, the Secretariat of Education of the city of Rio de Janeiro, and selected 22 schools covering 9 out of the 11 school districts in the city.<sup>12</sup> This broadly covers the entire area of the city. Even though I did not randomly select the schools, they are fairly representative compared to all the 607 public schools offering secondary education in the city (see

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conteudos-machistas-na-internet.ghtml. Accessed on September 11, 2024

<sup>11</sup>This data is from the baseline survey in the supplementary experiment ( $N = 167$  boys and  $N = 192$  girls). I first asked “Do you talk about what society expects of men?”. For those who answered “Yes”, I then asked who they talk to (e.g. male school friends, female school friends, mother, father), and an open-ended question on what they talk about.

<sup>12</sup>In fact, I visited schools from all districts. I piloted the main experiment in two other districts, which were not included in the main experiment. I also included a school from an 11th district in the supplementary experiment.

Table B3). Out of 12 characteristics, schools in my sample are only statistically different with respect to the share of white students compared to all the of schools ( $p = 0.04$ ), which is similar to a difference obtained by chance.

**Student Selection.** My target sample consists of 7th to 9th graders (i.e.,  $\approx 12\text{-}14$  years old) across 88 classrooms. Within each class, the study (baseline-treatment-endline) took 50-60 minutes. Due to time constraints, no more than 5 classes from the same school could participate. To accommodate this, in schools with over 5 7th-9th grade classes, I prioritized upper-year students. My sample thus consists of 2,249 students (1,154 girls and 1,095 boys), with 60% 9th graders, 32% 8th graders, and 8% 7th graders.<sup>13</sup>

### 3.1.2 Treatment Conditions

**Treatment Assignment.** Figure 1 outlines the structure of the main experiment. Within classroom, I randomly assigned half of the students to one of three types of discussions, stratified by sex: Voluntary (N = 795), Randomized (N = 750), and Active Control (N = 704). Classrooms (N = 88) could then be one of three types: (i)  $\frac{1}{2}$  Voluntary  $\times \frac{1}{2}$  Active Control, (ii)  $\frac{1}{2}$  Randomized  $\times \frac{1}{2}$  Active Control, and (iii)  $\frac{1}{2}$  Voluntary  $\times \frac{1}{2}$  Randomized. I performed the randomization before visiting the schools, upon receiving the list with students' names.<sup>14</sup>

**Masculinity Discussions.** The treatments consist of focus group-like discussions about masculinity. Male mediators led the sessions, asking participants to share whether they agree or not with the statements *men who cry are weak* and *men should use violence to get respect If necessary*, and further explain and provide examples of their opinions.<sup>15</sup> These statements represent, respectively, the emotional restriction and aggression dimensions of traditional masculinity. To pick these statements, I conducted focus groups with boys and was also inspired by the *Man Box* – a study conducted across . B. from and from a large cross country study at the time. Participants first shared their views on the statement about crying, and then on the statement about violence.

The mediators did not express their personal opinions: their only role was to guide the discussion. In addition, we alternated a boy and a girl speaking, and a maximum of six students could talk. I set a maximum number of speakers to allow me to differentiate between the *Voluntary* and *Randomized* students. If everybody spoke, I would not expect any differences between the treatments as speakers could be similar by construction since they were randomized into each

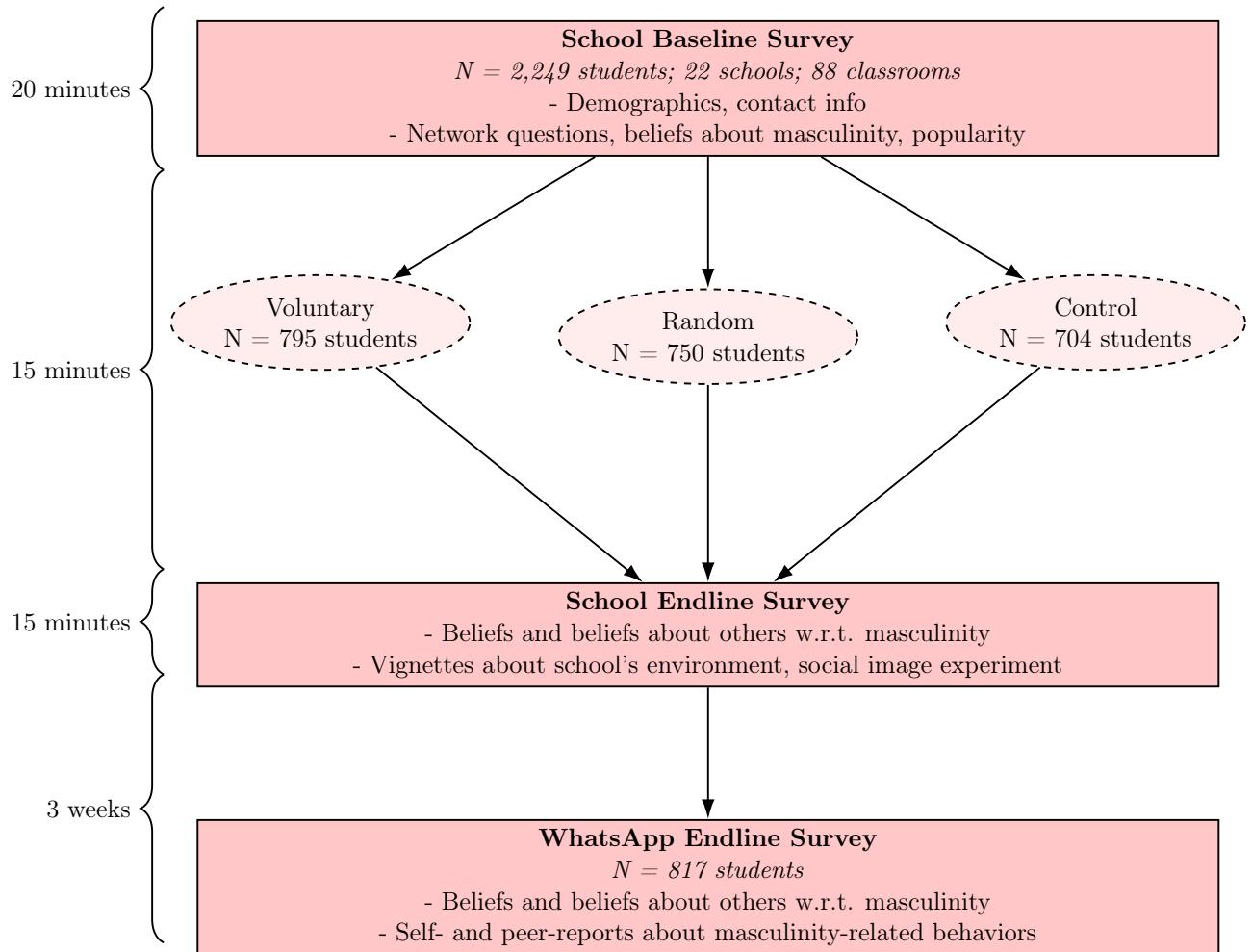
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<sup>13</sup>To avoid contamination across classes, the field team would only visit a school once.

<sup>14</sup>Participating students represent about 75% of students in the participating schools. This difference is mainly due to students being absent on the day of the study rather than parents or students not consenting to their participation.

<sup>15</sup>The mediators were members of the NGO *Luta pela Paz* (Fight for Peace), who are experienced in conducting this type of activity with youth. At the time of the intervention, they were piloting a discussion session on masculinity with black youth across some favelas in Rio.

Figure 1: Experimental Design - Main Experiment



*Notes:* This figure displays the design structure of the main experiment. Classrooms were randomized into one of three types: Class Type 1: Voluntary  $\times$  Control; Class Type 2: Random  $\times$  Control; Class Type 3: Voluntary  $\times$  Random. Students were then randomly allocated into either the *Voluntary*, *Random*, or *Control* discussion within their classroom.

session. In addition, fixing the number of students in the discussions shuts down another potential confounding between *Voluntary* and *Randomized* discussions, which could have been how many students spoke in each of them. Figure A1 presents a roadmap of the discussions. On average, the discussions took 15 minutes, with 13 people in each session, and they could be of two types:

1. *Voluntary*: Mediators asked subjects in this group to raise their hands if they would like to share their views on the masculinity statements. The mediator always picked on the first male to raise their hand, then alternated between a female and a male until it reached a maximum of six students. Hence, this treatment arm consists of only introducing a topic, aiming to mimic the dynamics of any discussions among students in the schools.
2. *Randomized*: Before the field team visited each school, I randomly selected students that the mediators would call out to speak following a random order. Following the same logic as in the *Voluntary* arm, mediators would first call out a boy, then a girl, to share their views until six students spoke. Called-out participants could refuse to speak, but this rarely happened, resulting in a strong first-stage when regressing a realized on a predicted speaking dummy ( $\beta = 0.85$ , F-stat = 548, Table B6).

**Observers' Form.** A research assistant observer took notes during these discussions (survey form in Figure A3).<sup>16</sup> They indicated (1) whether a student said they agreed or not with each statement, (2) keywords and quotes, (3) whether they shared a personal example, and (4) group dynamics (e.g. if there was laughter and jokes). I am then able to link the observers' notes with participants' baseline and endline responses. During these discussions, students sat in a circle together with the mediator and the observer (Figure A2).

**Active Control.** The control group attended a discussion session about recycling practices, mediated by a male member of the environmental education NGO *Mangue & Tal*. Only the participants who voluntarily raised their hands would speak up (i.e. there is no *Randomized* arm). The topic of recycling is not expected to affect perceptions about the school's current gender norms. The active control group accounts for the effects of meeting attendance and attenuates experimenter demand effects. I instructed the mediators not to make any comments related to gender in any way. To test for this, I find no difference in the levels of agreement with the statements about crying and violence between the survey immediately before and immediately after the discussion ( $p = 0.8$ ).

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<sup>16</sup>There were 4 observers (3 female and 1 male), which would rotate across each school.

### 3.1.3 Data Collection and Outcomes

**Baseline.** All 2,249 participants completed a baseline survey, which included the following modules:<sup>17</sup> (i) demographics;<sup>18</sup> (ii) friendships and popularity; (iii) peer-reported measures of vocality, friendship and admiration; (iv) private views on whether agrees or disagrees with the masculinity statements *men who cry are weak* and *men should use violence to get respect if necessary*, and adherence to the *Meanings of Adolescent Masculinity Scale* (Oransky and Fisher 2009); (v) social desirability bias based on [Crowne and Marlowe \(1960\)](#).

Table B1 summarizes baseline characteristics of the sample and provides the p-value of an F-test of joint significance to test for covariate balance between the study arms, within sex. Among boys, 4 characteristics out of 27 are imbalanced at the 10% level: percent white ( $p = 0.09$ ), percent black ( $p = 0.05$ ), degree of self-reported influenced by girls ( $p = 0.07$ ) and social network score ( $p = 0.10$ ). Among girls, 3 characteristics are imbalanced at the 10% level: percent white ( $p = 0.06$ ), whether talk to friends about boys ( $p = 0.06$ ), and whether talk to friends about what society expects from a man ( $p = 0.07$ ).<sup>19</sup>

**School Endline.** Participants responded to an endline survey in the school, immediately after the discussions ended (Figure ??). I describe these outcomes below, and introduce other outcome measures when they appear in the discussion of my findings.

**WhatsApp Endline.** Three weeks after our visit to the school, I distributed a second endline survey sent to participants' WhatsApp numbers. 80% of boys and 87% of girls provided their WhatsApp information. Among those who provided their WhatsApp contact detail, 42% completed the WhatsApp endline. Attrition is not correlated with baseline characteristics differentially by treatment status for most characteristics, among the WhatsApp sample (Table B2). Similarly to the baseline survey imbalance, only four characteristics among boys are not balanced across groups (age, living with mother, talking to friends about boys, and importance given to popularity), and three characteristics among girls (percent white, talking to friends about boys, talking to friends about girls).

My main primary outcome, measured at both endline surveys, is the misperceptions about the two beliefs about masculinity they discussed (*men who cry are weak* and *men should use violence to get respect if necessary*). I define misperceptions as the percentage point wedge between students' guesses<sup>20</sup> of the percentage of boys and girls, separately, in their school classroom they think to

<sup>17</sup>Participants self-administered the baseline and school endline surveys on tablets using Qualtrics offline. All baseline data collection happened prior to the revelation of the treatment assignment.

<sup>18</sup>I opted to ask students' sex, instead of gender, to avoid potential controversies as gender is a politically loaded word in Brazil.

<sup>19</sup>The results are similar whether or not these covariates are controlled for (Figure ADD ROBUSTNESS.)

<sup>20</sup>I did not incentivize the elicitation of the guesses as my partner did not allow me to provide any sort of monetary and non-monetary incentives to the children.

agree with each of the statements and the actual percentage of boys and girls who agree with each statement at baseline. I follow the recommendation of [Bursztyn and Yang \(2022\)](#) and only elicit the guesses at endline to avoid priming and consistency effects. I discuss other outcomes when they appear in the discussion of my findings.

### 3.2 Supplementary Experiment

**Sample Selection.** I conducted the preregistered supplementary experiment in April 2024 with a sample of 359 8th-9th graders (i.e.,  $\approx$  13-14 years old) across 14 classrooms in 3 public schools in Rio de Janeiro. I selected the schools in coordination with my partner, the Secretariat of Education, similarly to how we did it in the main experiment. The selected schools are similar in terms of observable characteristics, compared to all the public schools in Rio de Janeiro (Table [B3](#), Column 5) and to the schools included in the main experiment (Table [B3](#), Column 6). Participating students are also similar across the two experiments for most characteristics (Table [B4](#)), except boys in the supplementary experiment are less likely to live with a father ( $p = 0.02$ ), more likely to live with a stepfather ( $p < 0.01$ ), and are more masculine ( $p < 0.01$ ).

**Treatment Assignment.** Figure [A4](#) presents the structure of the supplementary experiment. In this experiment, all participants engaged in discussions about masculinity with peers they selected. To estimate the causal effects of the discussion, I randomized, stratified by sex, the outcome variables elicitation to be in the survey before ( $N = 185$ ) or after ( $N = 174$ ) the discussion.

**Masculinity Discussion.** At the end of the pre-discussion survey, it explained we would ask them to talk to their friends about their opinions of what society expects of men. Facilitators then instructed them to organize a group of 5 to 6 people and sit in a circle (Figure [A5](#)). Participants read the discussion guidelines on their tablets, which instructed them to discuss their views about the statements *men who cry are weak* and *men should use violence to get respect if necessary*, similar to the main experiment guidelines. The discussions were partially mediated: three facilitators rotated across the groups,<sup>21</sup> asking if they understood the guidelines, shared their views, and heard their peers' opinions. Nevertheless, the mediators did not guide the discussions throughout, even though they were in the same room as the discussions took place.<sup>22</sup> We timed the discussions to be 15 minutes long, to be consistent with the main experiment.

**Data Collection and Outcomes.** All 359 participants self-administered a pre-discussion survey, which included the following modules: (i) demographics; (ii) network questions asking students to

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<sup>21</sup>On average, there were XXXX groups in a classroom.

<sup>22</sup>I piloted these discussions without any mediation, but some participants did not talk about the masculinity statements. I added some degree of mediation to (i) have a stronger first stage in talking about masculinity and (ii) make it more comparable with the design of the main experiment.

name peers they spent the most time in the last week; (iii) four questions from the [Crowne and Marlowe \(1960\)](#) social desirability scale; (iv) questions on what they talk to their friends, including whether they talk about masculinity, and open-ended responses on what they talked, or why they do not talk; (v) adherence to the *Meanings of Adolescent Masculinity Scale* ([Oransky and Fisher 2009](#)). The survey then says we will ask them to discuss their opinions on what society expects of men with their friends, and they have to provide their impressions of how this discussion will go, regarding interest, comfort, and connection.

The main outcome of interest is the misperceptions about girls' and boys' beliefs about crying and violence, elicited in the same way as in the main experiment. Other outcomes include their private views about the masculinity statements, besides self-reported behaviors, such as willingness to serve as an emotional support peer and to be an anti-bullying advocate in the school. I randomly allocated participants to respond to these questions either in the pre-discussion (control) or in the post-discussion (treated) survey.<sup>23</sup> Table B5 presents summary statistics and balance tests across a series of characteristics, separate for boys and girls. The only imbalance is that control girls are more likely to be white ( $p = 0.02$ ) and less likely to be black ( $p = 0.01$ ) than treated girls, and I show the effects on the main outcome are robust to controlling for these characteristics (Figure ADD).

Participants then responded to a short post-discussion survey. For control participants, it first elicited their post-discussion impressions regarding interest, comfort, and connection, whereas treated participants first responded to the outcomes of interest before responding to their discussion impressions. Finally, they indicated the peers who participated in their discussion group and responded whether each peer agreed or disagreed with the statements *men who cry are weak* and *men should use violence to get respect if necessary*.<sup>24</sup>

**Group Characteristics.** There were 49 groups, with an average of 5.25 people (Figure A6). The groups were equally sex-balanced, and the average group had 47% of boys. Nevertheless, 24.6% of them were composed of girls only, and 23.8% of boys only (Figure A7). On average, 28% of their group was listed as a close friend, with 76% of peers listed as a close friend participating in a group.<sup>25</sup>

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<sup>23</sup>I embedded the randomization on Qualtrics offline.

<sup>24</sup>One school did not send the list of participating students before the field team visited this school. As a result, the network question and the question to select which peers were in their discussion group could not be included. To allow me to test for gender composition effects, I added a question so they could indicate how many boys and how many girls were in their group.

<sup>25</sup>The average number of peers listed as someone they spent the most time together in the last week is 2.2.

## 4 Results on Misperceptions

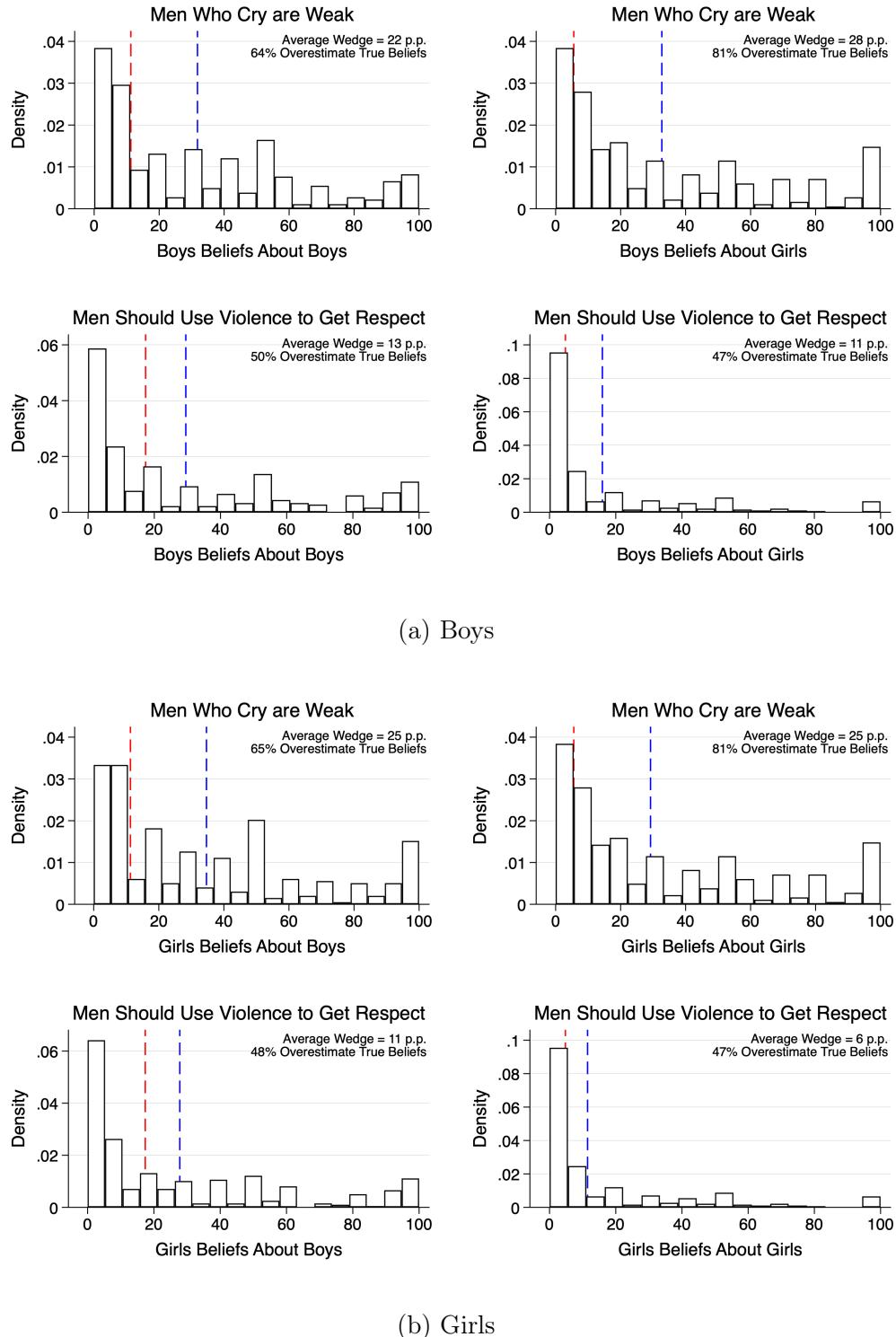
### 4.1 Main Experiment

***Misperceived Social Norms.*** Boys and girls systematically overestimate their peers' levels of agreement with statements about traditional masculinity (Figure 2). Boys' average guesses are that 32% and 29% of other boys and 33% and 16% of girls in their classroom agree with the masculinity statements about crying and violence, respectively (Panel a). Boys' baseline average level of agreement with the statement about crying is 10%, and 17% for the statement about violence; and girls' levels are 5% for both statements. These numbers result in average boys' wedges about boys' beliefs of 22 and 13p.p., and about girls' beliefs of 28 and 11p.p. about crying and violence, respectively. Girls are equally incorrect about their peers' beliefs about masculinity (Panel b).

It is striking to find such misperceptions in an environment in which people are interacting every day, given that by interacting they also get to know their peers' beliefs and behaviors. The misperceptions about crying I document are similar to the ones in [Bursztyn et al. \(2020\)](#) regarding the support for women working outside of the household, which has an average wedge of 24 p.p., whereas the misperceptions about violence are about half of that. The authors also present evidence showing that knowing more people from the reference group predicts lower misperceptions. In my sample, on the contrary, correlations indicate that having more friends either increases or has no effect on misperceptions, whereas wanting more emotional support from their same-sex friends predicts larger misperceptions (Figure A8). These findings suggest that, in environments in which people already know each other, just the number of friends may not predict the degree to which people misperceive others' views. Instead, friendship characteristics such as the lack of emotional support, which relates to communication, may be a potential driver of misperceptions. Demographic characteristics (e.g. age, race, household composition, religion), how popular and how admirable a person is have no significant relationships with misperceptions.

There are several possible explanations for why the misperceptions about crying may be larger than the misperceptions about violence. First, communication about emotions and the expression of emotions may be constrained by an expectation that men remain emotionally stoic, exacerbating misperceptions about crying. Hence, not talking about this may be a product of masculinity-related expectations. Second, because violence is a public policy issue of great importance in these communities, discussions about violence (and potentially expectations around violent behavior) are likely more common than discussions about crying. In fact, 80% of the municipal schools in Rio have school-level programs that discuss violence, whereas only 30% discuss gender equality ([INEP 2021](#)), focusing especially on violence against women and sexual harassment. Finally, crying can be a private behavior, whereas violence is usually a public one, so peers may infer others' views from the behaviors they observe.

Figure 2: Distribution of Guesses About Peers' Masculinity Beliefs



*Notes:* This figure plots the distribution of boys' and girls' endline guesses in the control group about the share of their male and female classmates they think agree with the statements *men who cry are weak* and *men should use violence to get respect if necessary* (i.e. their second order beliefs). The sample consists of 376 girls and 328 boys in the control group, as the second-order beliefs are only elicited at the endline. Red dashed line plots average first order beliefs. Blue dashed line plots average second order beliefs.

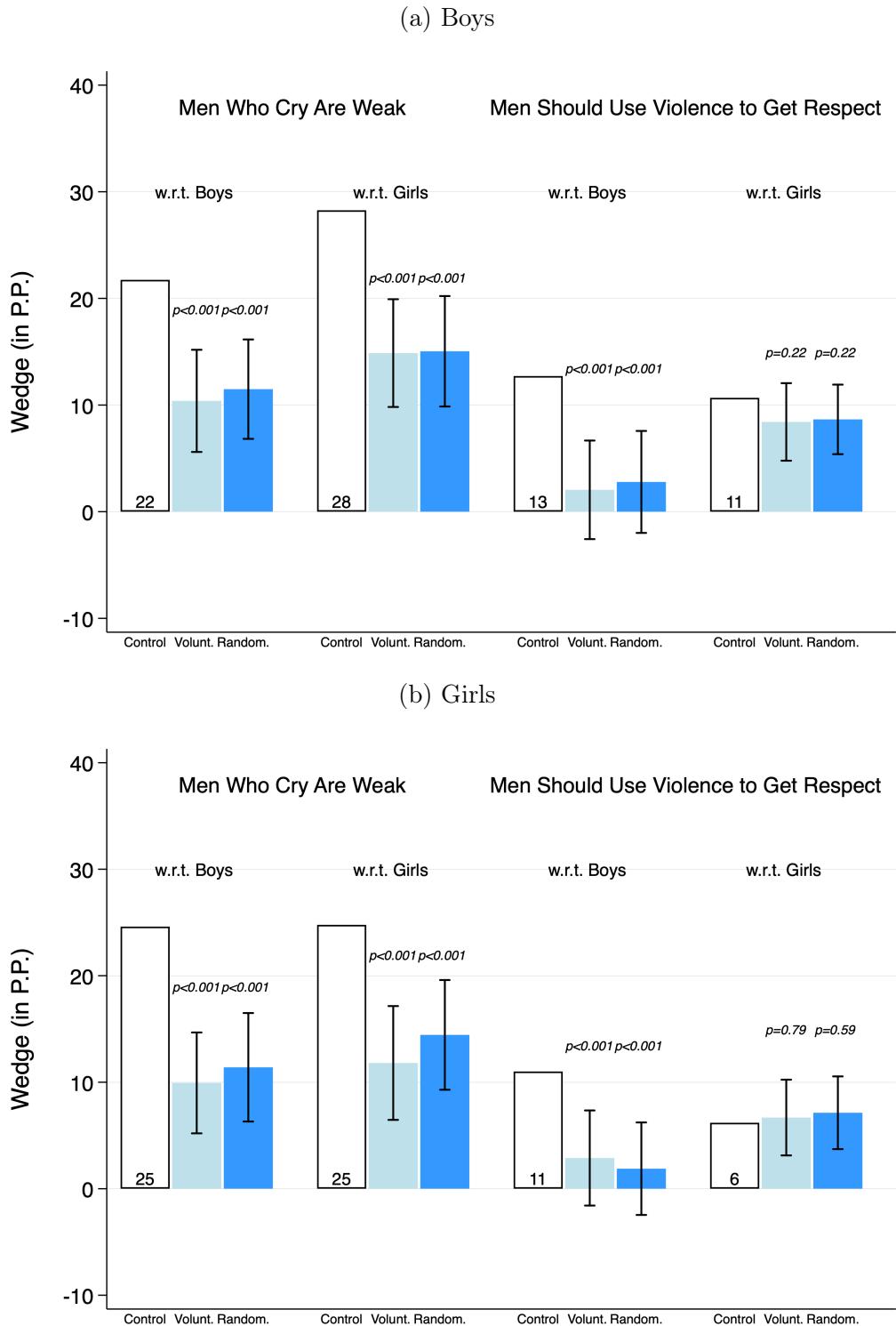
**Immediate Effects of Discussions.** The masculinity discussions reduce boys' and girls' misperceptions by over 50% across nearly all the comparison groups (Figure 3). In the control group, boys' average misperception about boys' beliefs about crying is 22p.p (Panel a, left plot). In the masculinity discussion in which people self-selected to speak (*Voluntary* arm), boys' average misperception is 10p.p. ( $p < 0.001$ ), and 11p.p. ( $p < 0.001$ ) for the group in which randomly selected participants spoke. The discussions are equally effective in reducing boys' misperceptions about girls' beliefs about crying and boys' beliefs about violence ( $p < 0.001$ ). Nevertheless, I cannot reject that the masculinity discussions shift boys' misperceptions about girls' views about violence ( $p = 0.22$ ), even though they suggest a 23% reduction in the *Voluntary* and *Randomized* groups, compared to the control group. The masculinity discussions also reduce the misperceptions held by girls (Figure 3, Panel b).

**Three Weeks Effects of Discussions.** The treatment effects of the masculinity discussions persist after three weeks (Figure 4). In the control group, boys' average misperception about boys' beliefs about crying is 18p.p (Panel a, left plot). In the *Voluntary* discussions, boys' average misperceptions reduce to 9p.p. ( $p = 0.02$ ), and to 7p.p. ( $p < 0.001$ ) in the *Randomized* group. The discussions also significantly change boys' perceptions about girls about crying, and about violence for both sexes, except boys in the *Voluntary* group do change their views about girls' beliefs about violence ( $p = 0.34$ ). The effects of the discussions on girls' misperceptions follow similarly (Panel b).

A natural question is whether adolescents talk to their friends about what they learned in the discussions three weeks later (i.e., whether information spillovers). I find suggestive evidence that girls in the control group talk about the masculinity discussions after it's over, especially with their other girlfriends (Table B11). 3-weeks later, girls with at least one treated girlfriend suggestively have lower misperceptions about other girls' beliefs about crying (-5.7p.p.,  $p=0.49$ , Panel B - Column 4) and violence (-10.8p.p,  $p=0.14$ , Panel B - Column 8), compared to their misperceptions immediately after the discussions. Boys with at least one treated boyfriend have suggestively smaller misperceptions about other boys' beliefs about crying, but suggestively larger misperceptions about violence, comparing their three weeks with their misperceptions immediately after the discussions. These are all noisy estimates as they consist of the sample of participants in the control group who responded to the WhatsApp survey. As a further test, comparing the three weeks with the immediate responses among the control group, girls' misperceptions about crying reduce by 10 p.p. three weeks later (Figure A10, Panel b), but boys' misperceptions do not change (Figure A10, Panel a).

These exercises are a further suggestive test of a lack of communication: the control group could have learned the information from their treated peers if the one-time masculinity discussion was enough to encourage organic communication about it in the classroom. While there is some

Figure 3: Masculinity Discussions Reduce Misperceptions Immediately After Treatment



*Notes:* This figure shows the effects of the *Voluntary* and *Randomized* discussion treatments. The wedge is calculated as the difference, in percentage points, between (*participants' guesses about the percentage of their male or female peers agreeing with each statement*) and (*the true percentage of participants agreeing with each statement at baseline*). A positive wedge means that people overestimate the prevalence of traditional beliefs about masculinity. 95% confidence intervals plotted, from a regression of the wedges on treatment status dummies, including school fixed effects. Standard errors are clustered at the classroom level.

evidence that girls talk to their other girlfriends about the discussions, there is no strong evidence that having a treated friend impacts boys' misperceptions three weeks later.

#### 4.1.1 Why Are Effects Similar Across The *Voluntary* and *Randomized* Groups?

In this section, I provide evidence that explains why the treatment effects of the *Voluntary* and *Randomized* discussions are statistically indistinguishable. I explore the public opinions shared in the discussions, the narratives used, the speakers' baseline characteristics, and the discussions' characteristics, as noted by the observers.

I find no evidence that people self-select into speaking about crying, but there is strong evidence that those with less masculine views about violence speak in the *Voluntary*, compared to the ones in the *Randomized* group. Figure 5 plots the average private and public opinions about crying and violence among first speakers in the *Voluntary* and *Randomized* discussions. I restrict the sample to first speakers within sex since their opinions have not yet been influenced by their peers.<sup>26</sup> Boys' and girls' private opinions about crying are not statistically different comparing the speakers in the *Voluntary* and *Randomized* groups, suggesting that there is no evidence of self-selection in this domain ( $p = 0.68$  in Panel a;  $p = 0.38$  in Panel b, respectively). Nevertheless, there is strong evidence of self-selection in the violence domain: only 2% of boys' first-speakers privately agree with the statement about violence in the *Voluntary*, compared to 20% in the *Randomized* group ( $p = 0.01$ ). Girls also self-select in the violence domain ( $p = 0.05$ ).

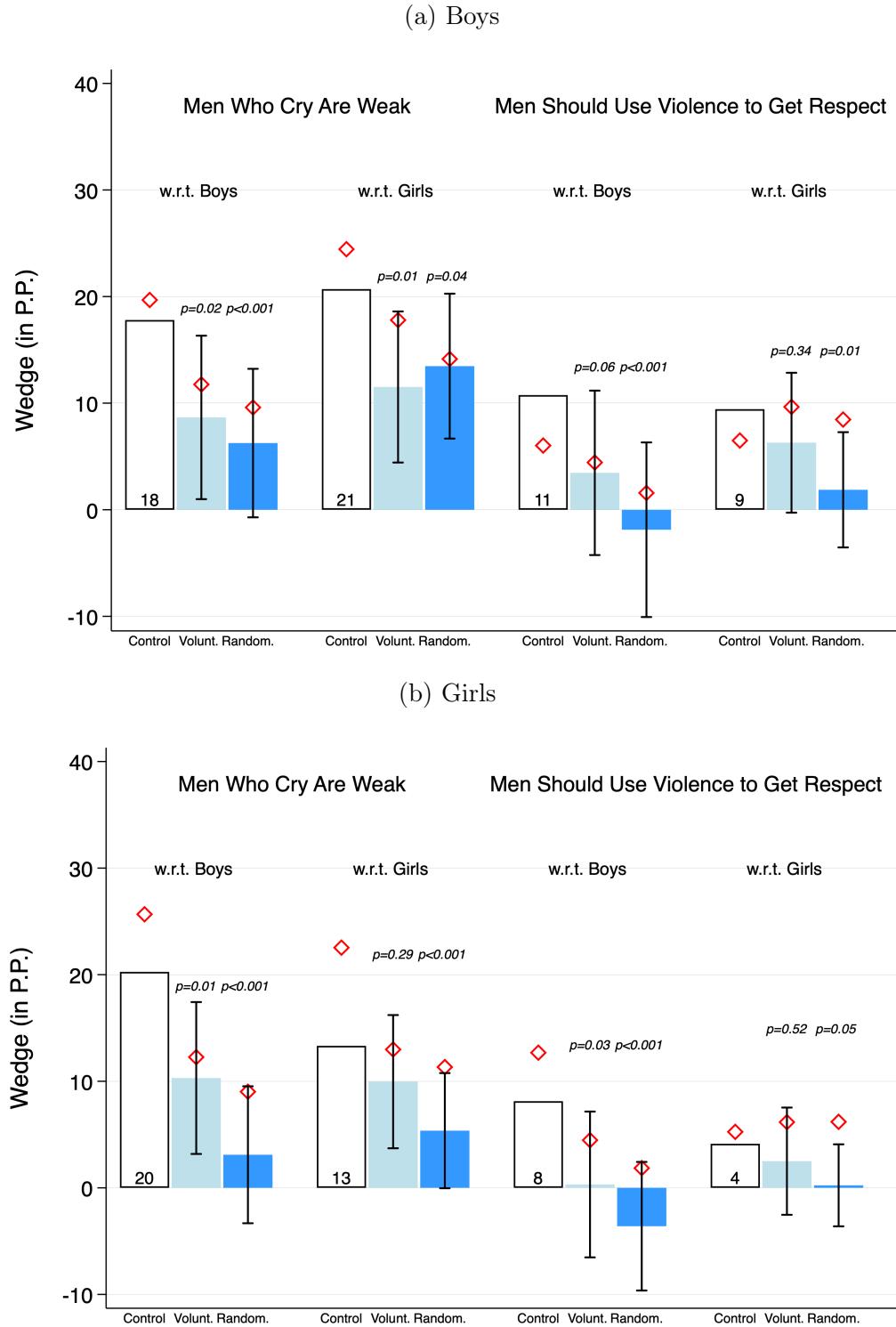
Despite some selection into speaking, boys' and girls' public opinions about crying and violence are the same. 8% of boys in the *Voluntary* group publicly agree with the statement about crying, compared to 7% in the *Randomized* group ( $p = 0.89$ ). In the *Voluntary* group, 15% of boys publicly agree with the statement about violence, compared to 19% in the *Randomized* ( $p = 0.55$ ). The same applies to girls' public opinions (Panel b). This means that even when there is self-selection (e.g. regarding the belief about violence), people in the discussions hear similar information. This happens because the less masculine boys who self-selected to speak in the *Voluntary* group lie in public to show more masculine views ( $p < 0.01$ ), whereas those asked to speak in the *Randomized* group do not lie ( $p = 0.72$ ), and similarly for girls. Hence, even though less masculine participants in the violence domain decide to speak in the *Voluntary* discussions, they then adjust their public views to be more masculine and provide similar views to the *Randomized* speakers.

Besides expressing similar public opinions, participants in the *Voluntary* and *Randomized* groups use similar narratives to support their views (Figure A9). The argument that narratives matter builds on a growing literature in economics on the power of narratives (e.g. Shiller 2017; Andre et al. 2021). To test this, research assistants manually categorized the quotes shared

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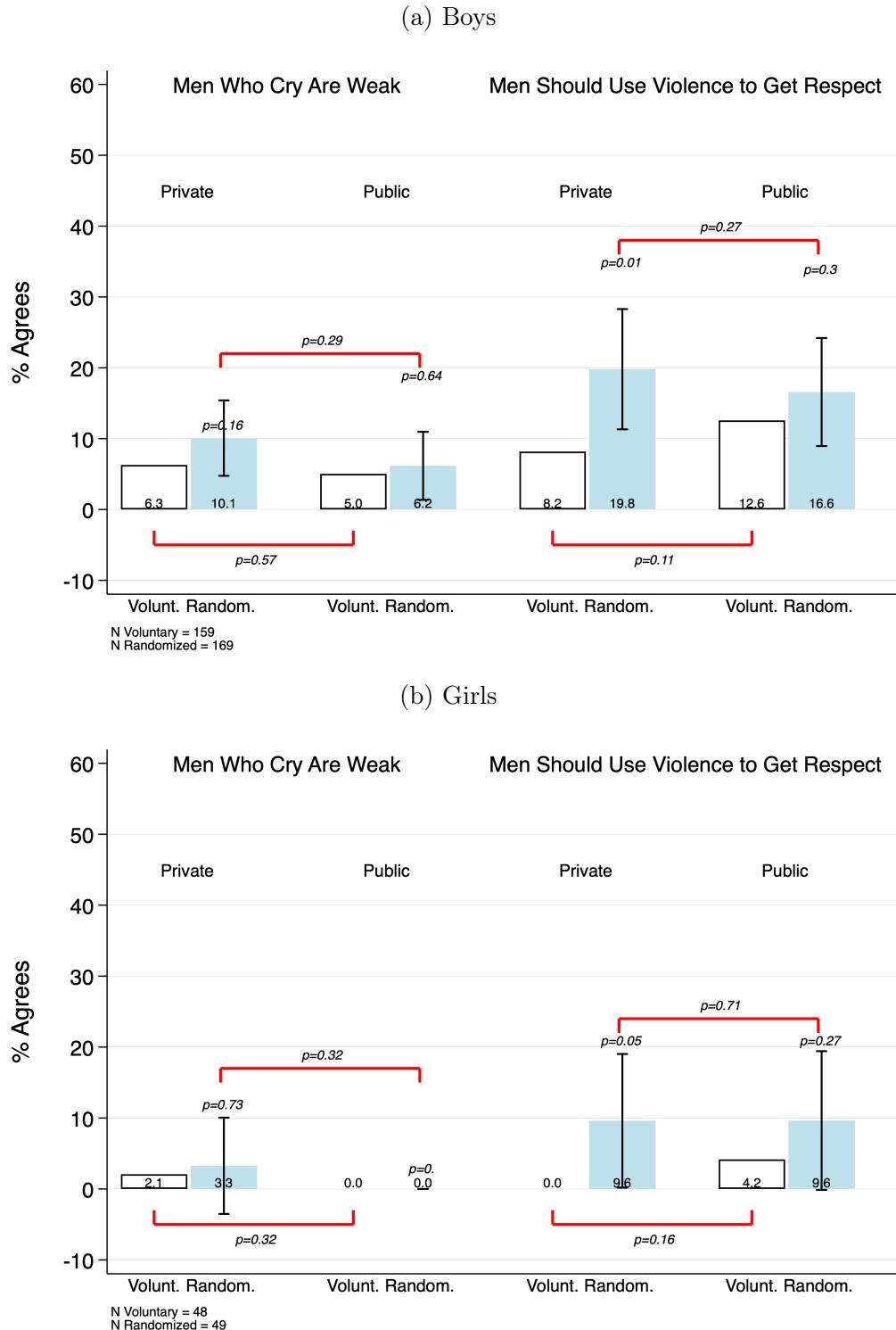
<sup>26</sup>To allow me to compare their private and public opinions on the same scale, I recoded participants' public opinions coded as "Depends" by the observers as "Agree", since it meant they agreed in some circumstances.

Figure 4: Masculinity Discussions Have Persistent Effects on Misperceptions After Three Weeks



*Notes:* This figure plots the treatment effects for the *Voluntary* and *Randomized* groups for the sample who responded to the second endline, distributed via WhatsApp 3 weeks after treatment. The wedge is calculated as the average difference, in percentage points, between (*participants' guesses about the percentage of their male or female peers agreeing with each statement*) and (*the true percentage of participants agreeing with each statement at baseline*). 95% confidence intervals plotted, from a regression of misperceptions on treatment status dummies, including school fixed effects. Standard errors are clustered at the classroom level. Red diamonds plot Endline 1 means for the WhatsApp sample.

Figure 5: Private and Public Opinions Among First-Speakers in the *Voluntary* and *Randomized* Discussions



*Notes:* This figure compares the average private (from baseline) and public (from the discussions) opinions among boys' first speakers (Panel a) and girls' first speakers (Panel b) in the *Voluntary* and *Randomized* groups. Error bars indicate 95% confidence intervals for the difference between the opinions of the *Voluntary* and *Randomized* speakers, obtained from a regression of a dummy equals 1 if a participant agreed with the respective statement, and 0 otherwise; on a dummy equals 1 if in the *Randomized* and 0 if in the *Voluntary* group, including school fixed effects and standard errors clustered at the classroom level. *p*-values for the difference between one's private and public opinions (above or below the red bars) are obtained from a paired t-test of equality of means.

in the discussions, as recommended by Ferrario and Stantcheva (2022).<sup>27</sup> For example, 70% of boys, equally across *Voluntary* and *Randomized* speakers ( $p = 0.98$ ), justified their opinions on men crying by using arguments such as *crying is human*, categorized as *Everybody Has Feelings*. Similarly, roughly 50% of boys in both discussion groups ( $p = 0.51$ ) justify their views on views using violence by arguing that there should be other ways to get respect, such as conversation. When supportive of men using violence as a way to get respect, participants mentioned violence should be used as a defense mechanism, categorized as *Honor/Fight back*. Generally, girls in both discussion groups also used similar narratives. In addition, speakers could choose not to provide any examples to support their views. Speakers in the *Randomized* group were less likely than those in the *Voluntary* group to not provide examples of their views about crying, but equally likely on their views about violence.

I find that speakers in both the *Vocal* and *Representative* are similar in other baseline characteristics, besides the beliefs about crying and violence, except with respect to a vocality score (Table B8). To measure vocality, I ask peers to select the top 5 most talkative people in their class. The vocality score is the count of how many times a person was reported, excluding themselves. Column 1 shows that boys and girls who speak in the *Vocal* group are reported by their peers to be about 20% more vocal compared to those who speak in the *Representative* group. Columns (2)-(5) provide evidence that speakers in both treatment groups are not different in other important domains, such as popularity, admiration by peers, masculinity,<sup>28</sup> and social desirability. Only girls who speak in the *Vocal* group are marginally more likely to provide socially desirable answers (6%) than those in the *Representative* group.

**Discussion.** Tying up to the hypotheses about the dynamics of communication, I show evidence that when speakers self-select on their private beliefs, less masculine participants speak. In such case, speakers who self-select lie in public to show more masculine views, providing similar views to representative ones. In addition, when randomly selected to speak, people do not lie, at least not to a large extent. Hence, only making people talk about a topic has the power to shift misperceived social norms. Nevertheless, it seems to be important to include all relevant individuals in these conversations, as the information learned does not reach control participants in the medium-run. In Section 6, I discuss why adolescents may not talk about masculinity.

#### 4.1.2 Heterogeneity and Other Mechanism

**Self-Expression Effects.** I find that boys randomly selected to speak in the *Randomized* discussions have roughly 5p.p. lower misperceptions in the short-run, compared to those who did

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<sup>27</sup>Table B9 presents all the categories used and provides some sample quotes for each of them.

<sup>28</sup>The masculinity questions from the Meaning of Adolescence Masculinity Scale I included in the survey encompass questions on the restrictive emotionality dimension of masculinity. Hence, the absence of selection on the masculinity score is consistent with the absence of selection on the belief about crying in the discussions.

not speak (Figure A11, Panel a). Three weeks later, however, these effects reverse, and boys who speak have roughly a 10p.p. larger misperceptions than listeners in most domains (Panel b). Among girls, there is no strong evidence that speaking affects their misperceptions immediately after the discussion (Panel c), but they have suggestively lower misperceptions about crying three weeks later (Panel d). These findings suggest that speaking generates stronger updating for boys immediately after the discussion, which vanishes in the medium-run. On the other hand, for girls, speaking has some medium-run impacts on belief updating.

**Social Desirability.** Social desirability bias does not drive the immediate and three weeks effects of the masculinity discussions on misperceptions. Empirically, social desirability bias could play a role if the effects of the discussions were stronger among people with high baseline scores of social desirability. However, the estimates in Table B10 suggest that having a high likelihood of giving socially desirable answers—measured by the [Crowne and Marlowe \(1960\)](#) social desirability index—do not predict statistically significant treatment effects on misperceptions. The only exception is in Panel C, where the coefficient on the interaction between *High Social Desirability Score* and *Voluntary* is significant; however the sign of the coefficient indicates misperceptions actually increased for those who score high on social desirability, suggesting it is not these students who drive the average reduction in misperceptions observed in the study.

## 4.2 Supplementary Experiment

**Misperceived Social Norms.** Boys and girls overestimate their peers' levels of agreement with statements about traditional masculinity to a similar extent as in the main experiment (Figure A12). Boys' average guesses are that 32% and 26% of other boys and 30% and 16% of girls in their classroom agree with the masculinity statements about crying and violence, respectively (Panel a). Boys' baseline average level of agreement with the statement about crying is 12%, and 13% for the statement about violence; and girls' levels are 7% and 6%, respectively. These numbers result in average boys' wedges about boys' beliefs of 20 and 13p.p., and about girls' beliefs of 22 and 10p.p. about crying and violence, respectively. Girls are equally incorrect about their peers' beliefs about masculinity (Panel b).

**Effects of Discussions with Friends.** The masculinity discussions in which people choose who they want to be with reduce boys' misperceptions about other boys and reduce girls' misperceptions, but do not change boys' misperceptions about girls (Figure 6). Boys' average misperception about boys' beliefs about crying and violence reduce to 5p.p. and 7p.p. among the treated group, compared to 19p.p. and 12p.p. in the control group ( $p < 0.01$  and  $p = 0.1$ , respectively). Boys' misperceptions about girls' beliefs about crying and about violence do not change ( $p = 0.33$  and

$p = 0.57$ , respectively). The discussions are also effective in shifting girls' beliefs about boys' and girls' views (Panel b). Hence, differently from the main experiment, masculinity discussions with selected peers do not reduce boys' misperceptions about girls' views, and reduce girls' misperceptions about other girls' views about violence.

**Sex Composition.** The misperceptions of boys' in boys-only group reduce only regarding other boys' views about crying ( $p = 0.01$ ), whereas boys' misperceptions about girls' views even increase in magnitude (Figure A13, Panel a). Once in groups with girls, boys' misperceptions reduce across all domains, except regarding girls' views about violence ( $p = 0.45$ ). On the other hand, the effects of the discussions for girls are fairly similar depending on whether they are in girls-only or in mixed-sex groups, with girls' misperceptions about boys suggestively reducing even when they are in the girls-only groups (Panel b).

Add a summary of the results and how they link to the hypotheses.

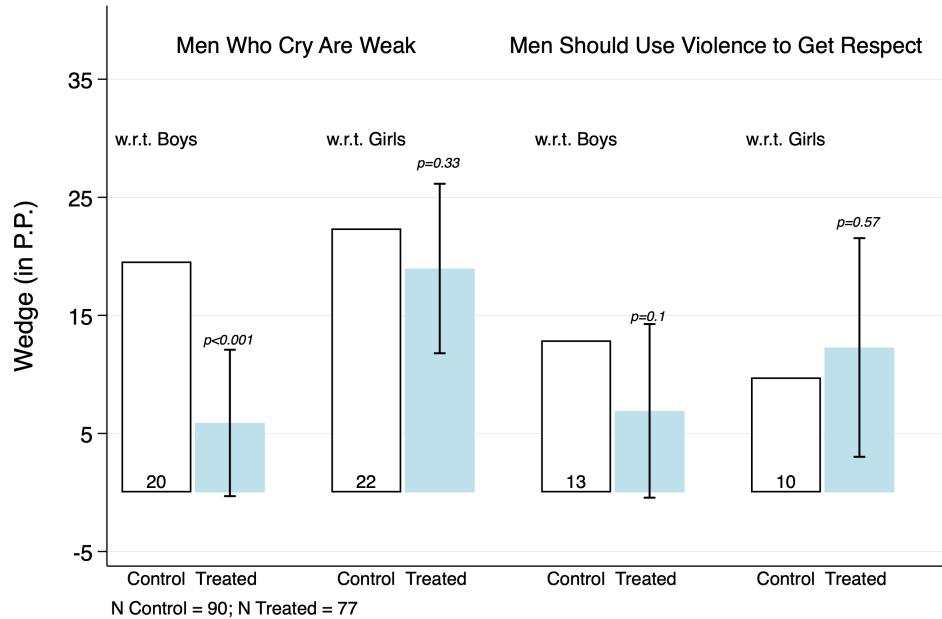
## 5 Downstream Outcomes

**First-Order Beliefs.** Immediately after the discussions, treated boys and girls become about 50% less likely to agree with the statement about crying, compared to the control mean (Table B12 - Panel A Columns 1 and 2). There are no significant effects on the beliefs about violence (Panel A Columns 3 and 4). Effects are similar across the *Voluntary* and *Randomized* treatments. In the medium-run, boys' beliefs about both statements become about 50% more progressive for those in the *Randomized* group, whereas I do not find significant effects for boys in the *Voluntary* group (Table B12 - Panel B Columns 1 and 3). Estimates for girls are, statistically and in magnitude, close to zero (Table B12 - Panel B, Columns 2 and 4). However, control girls' beliefs change considerably between the first and the second endlines, whereas control boys' beliefs remain similar (Table B12 - Control Mean of Dep. Var. rows in Panels A and B).

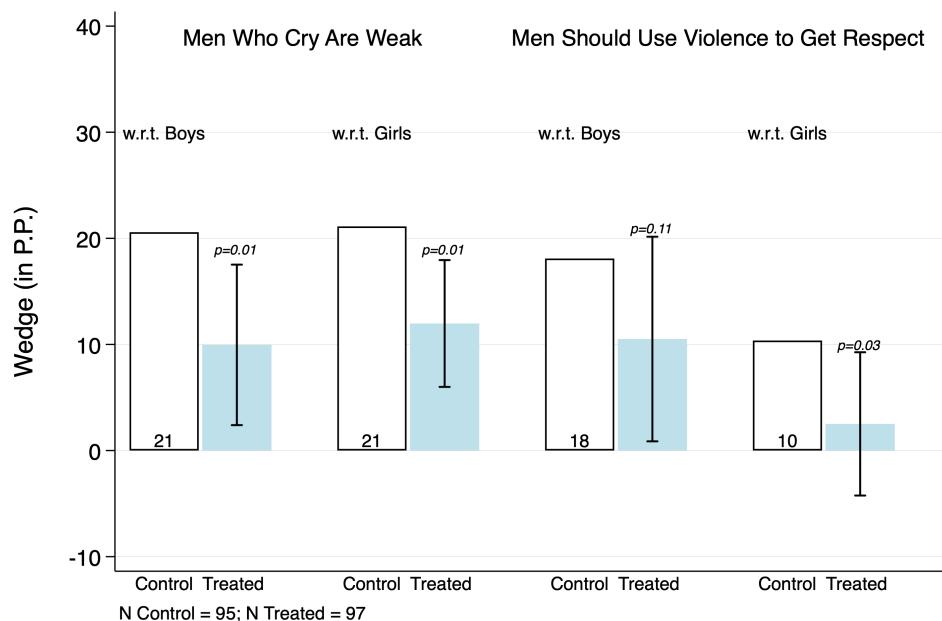
**Vignettes.** I find that my treatments strongly impact the three dimensions I measured through vignettes (self-reported behaviors, normative behaviors, and school norms), for boys and girls (Table B15). For simplicity, I pool both treatments, but the results are similar across them (see Table B16). My outcomes of interest are an index within each dimension across the three vignettes, standardized by the control mean and standard deviation. First, boys and girls self-report they would act less masculine by about 0.2 s.d after the masculinity discussion. Second, boys are 0.21 s.d. and girls are 0.13 s.d. less likely to say the masculine behavior was right. Third, students think their school peers are less likely to support masculine behavior by 0.13 s.d. (for boys) and 0.33 s.d. (for girls). Taken together, this indicates that the masculinity discussion sessions go

Figure 6: Self-Selected Discussions Reduce Misperceptions

(a) Boys



(b) Girls



Notes:

beyond changing students' own (self-reported) behaviors, normative views and perceptions about their school social norms.

**Social Image Concerns.** Table B13 (Panel A - row *Public*  $\times$  *Treated*) shows that the discussion treatments fully offset boys' social image concerns. Treated boys' behaviors with respect to crying (Column 1), being violent (Column 2) and removing money from a stranger (Column 3) are about 0.1 s.d. more similar than control boys' behaviors depending on whether their answers might be shared with their peers or not. Even though estimates are imprecise, these are sizable effects considering that overall social image concerns are of similar magnitude, comparing rows *Public* with *Public*  $\times$  *Treated*. Table B14 presents regressions with coefficients for each treatment.

Panel B presents regression coefficients for less masculine boys, defined as scoring zero on the Masculinity Adolescent Scale. Effects on social image concerns might be particularly strong for this population: they may think their peers have different beliefs about them. I find a large and significant effect on my behavioral measure (Column 3): treated boys' choices on whether to remove money from a stranger are 0.33 s.d. more similar in the public and private conditions, compared to control boys. Point estimates are also large (0.29 s.d.) with respect to self-reports on violent behavior.

These are suggestive evidence that changing boys' perceptions about what their peers think toward more progressive masculine views loosen prevailing masculinity norms. This has consequences for boys themselves as well as for others: in public, boys who participated in a discussion about masculinity become more likely to admit they have cried, less likely to admit they have been violent, and to perform antisocial behavior.

**Behavioral Outcomes.** Three weeks after the intervention, the discussion treatments have no effects on boys' self- and peer-reported behaviors. Table B17 shows that the treatment has point estimates close to zero on self-reported involvement in violence (Column 1), crying in front of a friend (Column 2) and having a deep conversation (Column 3). To account for potential response biases common in self-reported measures (e.g. social desirability, experimenter demand effects), Table B18 (Panel A) presents treatment effects on behavioral outcomes using peer reports. Corroborating the findings on self-reported behaviors, I find no evidence that the discussion treatments impacted peer-reported measures of negative masculine behaviors (Panel A - Columns 1 to 3). In addition, the masculinity discussions did not improve boys' positive masculine behaviors (Panel A - Columns 4 to 7). If anything, treated boys became 4% less respectful toward girls (Panel A - Column 6) compared to control boys ( $p = 0.08$ ).

Some reporters were also treated, which could bias the reporting. For example, the masculinity sessions could increase the salience through which reporters notice these behaviors, thus driving estimates downward. To account for this, Table B18 (Panel B) presents treatment effects on peer-reported behaviors considering reporters in the control group only. Besides being statistically

non-significant, point estimates are small, corroborating the absence of effects on behavior.

The lack of effects on behavioral outcomes could be due to different reasons. First, compared to changes in beliefs and attitudes, behavioral changes take more time to take place. Second, most of these behaviors could be considered rare events, so a larger time span would be needed to increase power. Finally, different from [Bursztyn et al. \(2020\)](#), these are behaviors that involve some degree of social interaction and are more subject to others' approval, so impacts in attitudes would transform into behavioral changes only after subjects are certain they will not suffer social sanctions from their peers.

## 6 Why Don't Adolescents Talk About Masculinity?

Having shown causal evidence that adolescents do not talk about masculinity, I now provide suggestive evidence that miscalibrated views about how these conversations will go may hinder organic conversations. In the supplementary experiment, I asked adolescents to predict how interested and how comfortable they would feel in the conversations with their peers, on a 0 (not interested/not comfortable at all) to 10 (extremely interested/extremely comfortable) scale. I also asked how much their predicted emotional connection with their discussion peers would increase, from 1 - not increase at all to 5 - increase a lot. Participants made the predictions before choosing their group, and after reading the discussion instructions. After the discussions, they answered the same questions again, this time rating how the conversation went. This exercise was inspired by [Kardas et al. \(2022\)](#), who show that people overestimate how awkward conversations with strangers about a deep topic (e.g., describing a time they cried in front of someone else) will go.

Within-individual comparisons before and after the masculinity discussions show that boys and girls significantly underestimate interest and comfort in these discussions (Figure 7). Before the discussions, boys' average self-reported interest was 5.4, increasing to 7.2 afterward (Panel A,  $p<0.001$ ). 18% of boys said they were not interested at all before the discussions, compared to only 3.6% after. The share of boys saying they are extremely interested and comfortable nearly doubled, getting close to 40%. There was no significant change in increased perceived connection with peers, which continued nearly stable at 3.5. The effects for girls follow similarly (Panel B): they underestimate interest and comfort in the masculinity discussions. Baseline correlations indicate that a 1 s.d. increase in declared interest and comfort in the discussions increases the likelihood of talking about masculinity by about 6% ( $p=0.02$  for interest and  $p=0.06$  for comfort).

My findings suggest that people may have miscalibrated views about how conversations will go, even among peers with whom they interact daily. I interpret this result as an additional piece of evidence of lack of communication: if adolescents in school talked about masculinity with their friends, we could expect them to have less miscalibrated views about the conversations. For example, [Kardas et al. \(2022\)](#) do not find evidence that people have miscalibrated views about

how deep conversations with close peers (e.g., close friends, family members, partners) will go.

In addition, 37% of boys and 14% of girls spontaneously say they are not interested in these discussions or that they would not feel comfortable talking about it.<sup>29</sup> Comparing the self-reported interest and comfort in these discussions among this subgroup, declared interest increased by 2.4 points ( $p < 0.001$ ) and comfort by 3 points ( $p < 0.001$ ) after the discussion. In addition, 24% of boys and 12% of girls say they do not know why they do not discuss what society expects of men. The discussions also significantly improve the perceptions of interest and comfort among this subgroup. Together, these findings suggest that there are strong barriers to discussing masculinity. Nevertheless, when encouraged to talk about masculinity, adolescents positively update their impressions.

## 7 Conclusion

This paper first documents that adolescents have large misperceptions about their peers' views about masculinity. In this context, only a minority of boys and girls agree with traditional views about masculinity, whereas they believe that a larger share of peers have such views. I provide causal evidence that a lack of horizontal communication drives these misperceptions. I show that a 15-minute discussion about masculinity effectively reduces misperceptions regardless of whether participants self-select into speaking, are randomly asked to speak, or speak with a close group of friends. This suggests that biased communication does not occur: adolescents who self-select to speak are less masculine, and if randomly asked to speak, they also express less masculine views. So misperceptions would be lower if they spoke about masculinity organically. In addition, their misperceptions reduce when in discussions with close peers, suggesting that they do not talk about masculinity with close peers either. Effects are also similar if the discussions are not entirely mediated. When in groups with boys only, boys show more inaccurate perceptions of girls' beliefs, highlighting the importance of including girls in such discussions.

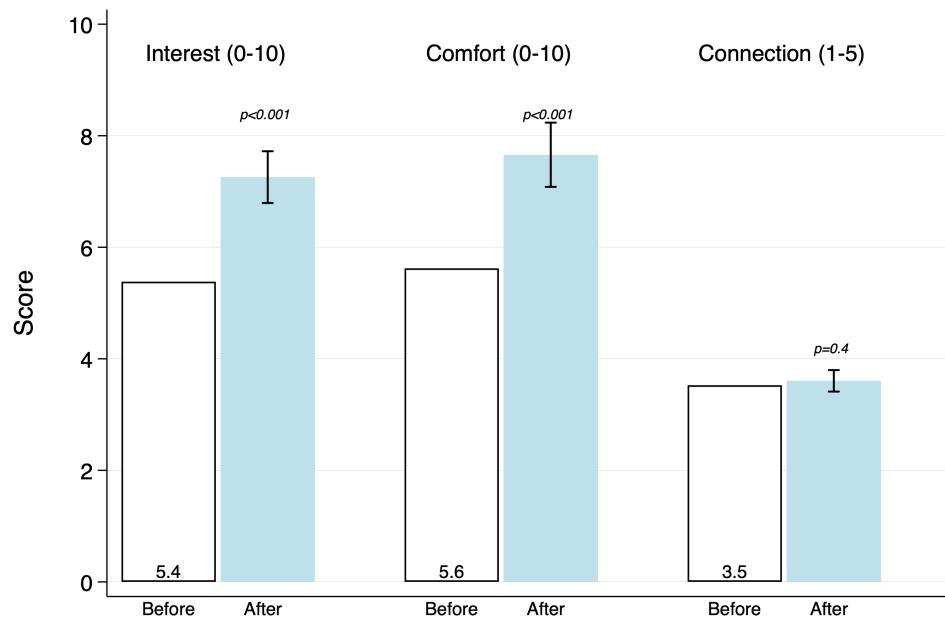
The effects of the discussions on misperceptions persist after three weeks. Adolescents in the control group did not change their views, suggesting that a one-time discussion about masculinity did not generate broader discussions outside the intervention setting. I provide suggestive evidence that underestimating comfort and interest in these discussions may drive the lack of communication. Despite the reductions in misperceptions, I do not observe changes in associated behaviors, such as emotional restriction and violence, three weeks later. While belief updating may occur rapidly, behavioral change may require more sustained interventions or repeated reinforcement.

Taken together, my findings underscore that even unstructured discussions about masculinity can generate meaningful shifts in adolescents' perceptions of gender norms. Encouraging and demystifying potential barriers to communication about societal expectations about manhood

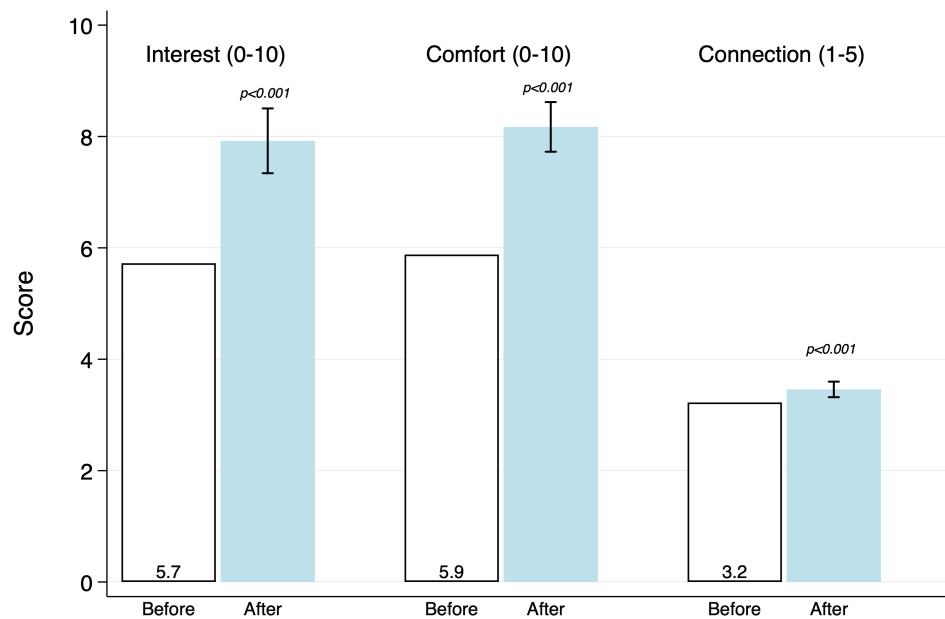
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<sup>29</sup>This was a follow-up question for those who answered "No" to the question "*Do you talk about what society expects of men*". It was asked before they declared their interest and comfort in the discussions.

Figure 7: Boys and Girls Underestimate Interest and Comfort in the Masculinity Discussions



(a) Boys



(b) Girls

*Notes:* This figure plots students' perceptions about the discussions before and after they took place.

may shift collective social norms. My design relates to recent calls by policymakers and academics to listen to boys' perspectives about masculinity, instead of promoting programs aiming to change harmful masculinity norms without understanding where such expectations might come from. This is especially relevant in a context permeated by violence, in which only a minority of men perpetrate violence. Collective policies, rather than ones that solely target individuals who use violence, may be necessary.

Introducing discussions about masculinity in schools is a cost-effective, scalable approach to reshaping young boys' and girls' perceptions of gender norms. School programs that integrate regular, structured conversations around gender expectations could help mitigate masculinity norms related to aggression and emotional restriction. Targeting early adolescence – when boys start the transition from boyhood to manhood – appears crucial for preventing the solidification of harmful masculinity beliefs as they become adults. Including mixed-gender discussions can be especially impactful.

A fruitful avenue for future research is to study the longer-term effects of more in-depth discussions about masculinity, measuring their impacts on adolescents' mental health, emotional connections, and aggressive behaviors. Such interventions might be informative to understand the causes of the large gender gaps in suicide rates, substance abuse and violence perpetration. Future research could also explore where adolescents learn their views about masculinity. This is especially important with the rise of masculinist influencers in social media, which propagate misogynous content and traditional views of manhood as being superior. It would also be important to address what drives boys' and men's demands for such masculinist content.

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# *ONLINE APPENDIX*

## **We Don't Talk About Boys: Masculinity Norms Among Adolescents in Brazil**

**Ieda Matavelli**

University of New South Wales

# Online Appendix A: Supplementary Figures

Figure A1: Roadmap of Discussions

## Masculinity Discussion Roadmap – *Vocal [Representative]*

Hi everyone, good morning/afternoon! First, thank you for taking the time to complete this survey. We are now going to start a conversation where I want to hear your views about some of the questions asked at the end of the survey. I want to remind you this is a safe space, in which you can express your opinions without being judged by me or your peers. I ask that the peers be respectful and do not interrupt whoever is speaking.

To put some order in the discussion, *people who want to speak should raise their hands [I will call out some students to speak up]*.

*Calls the first boy who raises his hand [Calls first boy in the randomized student list]*

Do you agree that "*Men Who Cry Are Weak*"? Can you explain or give an example of why you believe this?

Do you agree that "*Men Should Use Violence to Get Respect If Necessary*"? Can you explain or give an example of why you believe this?

And so on...

### Important notes

- The idea is NOT for everyone to talk. Only a few people will voice their opinion, but we don't need to communicate this to them.
- As the group will have around 10-15 people, we will invite a maximum of 6 people to participate in the discussion, alternating 1 boy and 1 girl.
- The idea of the discussion is to be a focus group, so the mediator (or anyone else in the room) should be judgmental. We want to know what THEY think, and why!

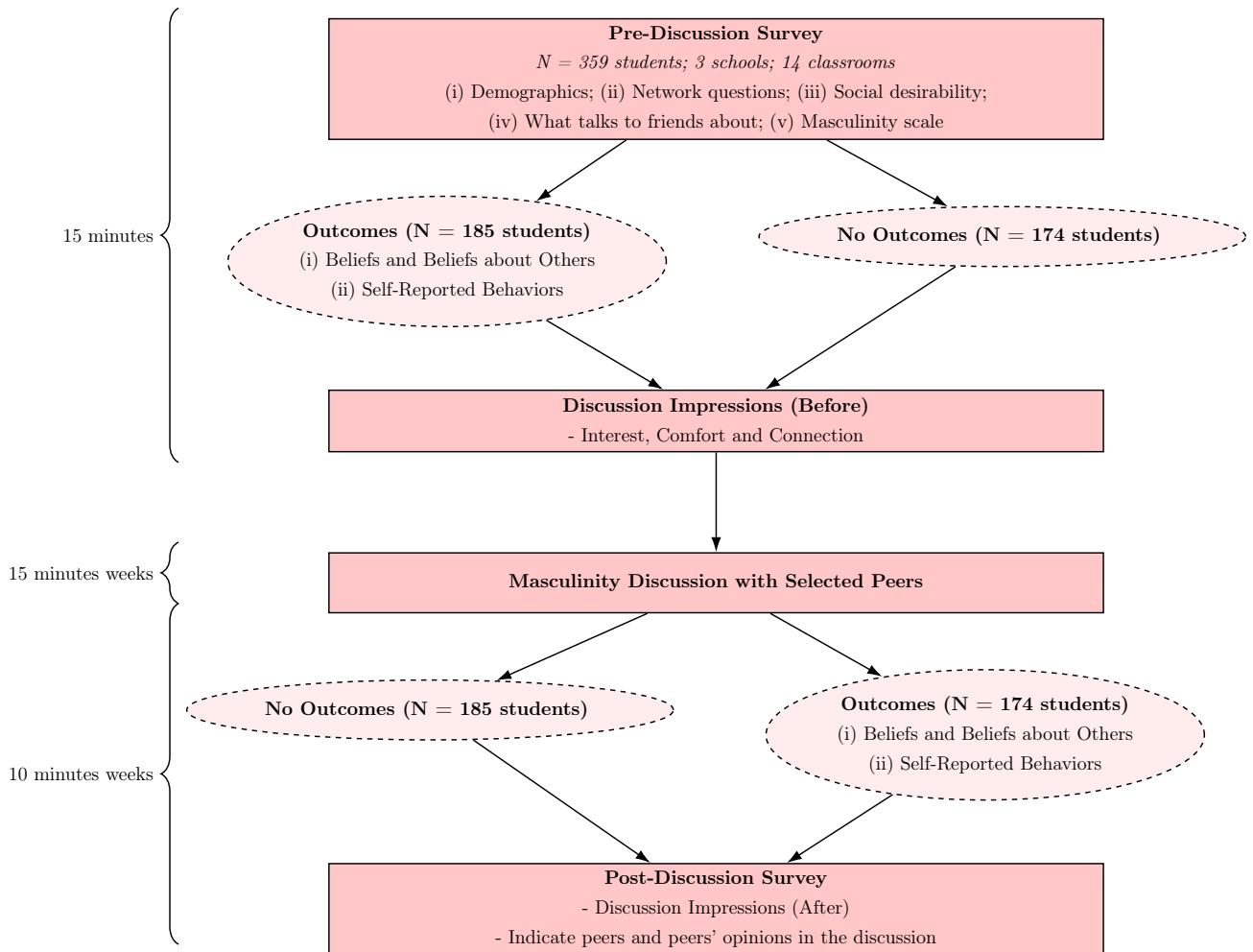
Figure A2: Main Experiment Discussion Session Setting



Figure A3: Observers' Form

SCHOOL: _____	CLASSROOM: _____	MEDIATOR: _____	TIME (IN MINUTES): _____					
STUDENT NUMBER (IDENTIFIER)	STATEMENT	AGREED?	KEY WORDS		QUOTES	PERSONAL EXAMPLES	OTHER NOTES	
	Men who cry are weak	YES NO UNCERTAIN	Family environment Use of alcohol or drugs Psychological problems Emotional imbalance	Everybody has feelings When is mad When is cheated on				
	Men should use violence to get respect if necessary	YES NO UNCERTAIN	Family environment Use of alcohol or drugs Psychological problems Emotional imbalance	Everybody has feelings When is mad When is cheated on				
	Men who cry are weak	YES NO UNCERTAIN	Family environment Use of alcohol or drugs Psychological problems Emotional imbalance	Everybody has feelings When is mad When is cheated on				
	Men should use violence to get respect if necessary	YES NO UNCERTAIN	Family environment Use of alcohol or drugs Psychological problems Emotional imbalance	Everybody has feelings When is mad When is cheated on				
	Men who cry are weak	YES NO UNCERTAIN	Family environment Use of alcohol or drugs Psychological problems Emotional imbalance	Everybody has feelings When is mad When is cheated on				
	Men should use violence to get respect if necessary	YES NO UNCERTAIN	Family environment Use of alcohol or drugs Psychological problems Emotional imbalance	Everybody has feelings When is mad When is cheated on				
GENERAL NOTES:			GROUP BEHAVIOR: Dominant boys Dominant girls Shy group Conversation took time to happen		Engaged group Wanted to debate Much laughter/jokes			

Figure A4: Experimental Design - Supplementary Experiment



Note: This figure presents the design of the supplementary experiment. All participants engaged in a discussion about masculinity with peers they selected. To estimate the causal effects of the discussion, I randomized the outcome variables elicitation to be before or after it, stratified by sex.

Figure A5: Supplementary Experiment Discussion Session Setting



Figure A6: Supplementary Experiment Discussion Group Size

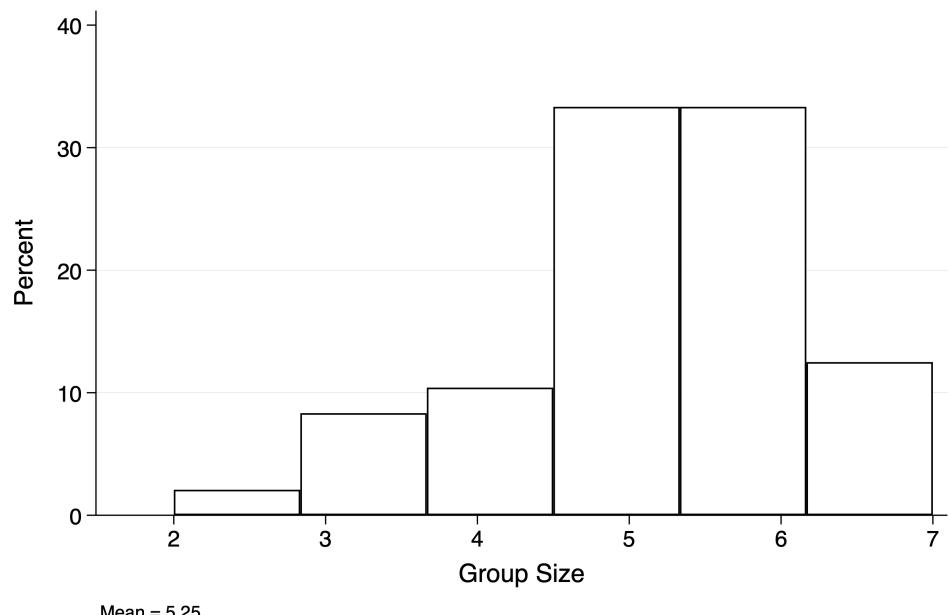


Figure A7: Supplementary Experiment Share of Boys Within Group

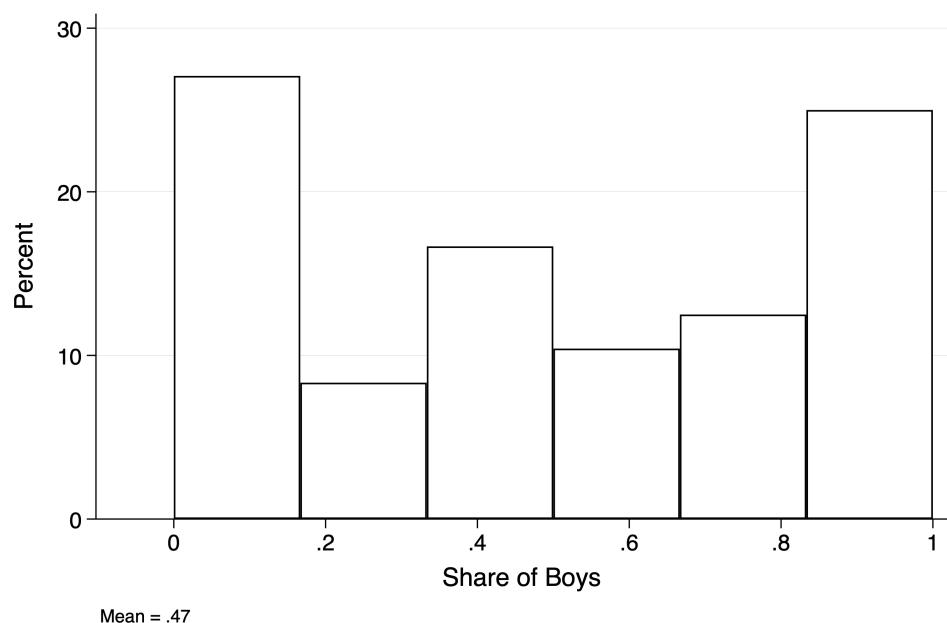
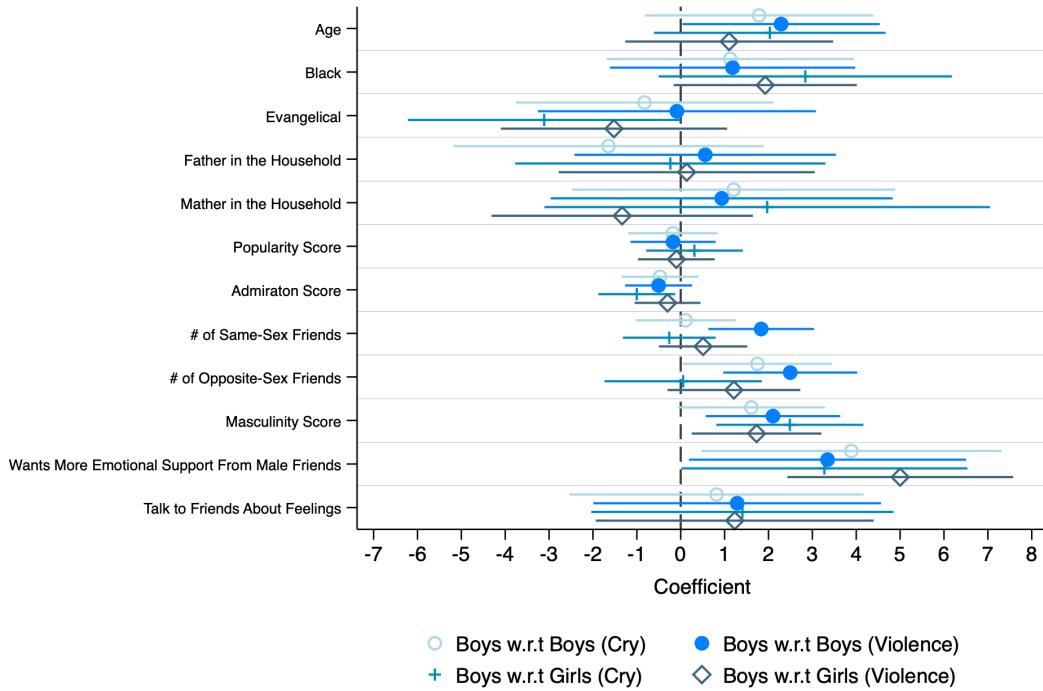
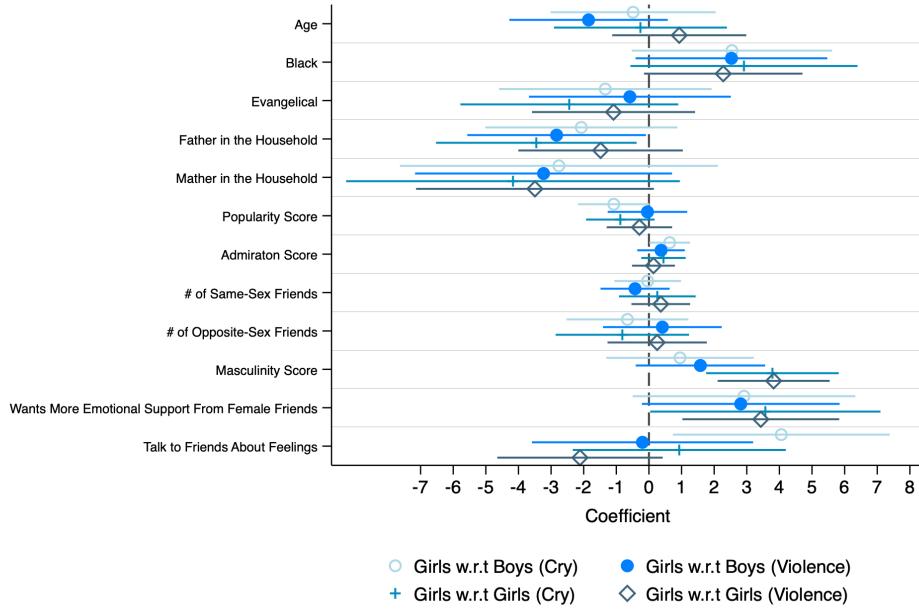


Figure A8: Correlates of Misperceptions



(a) Boys

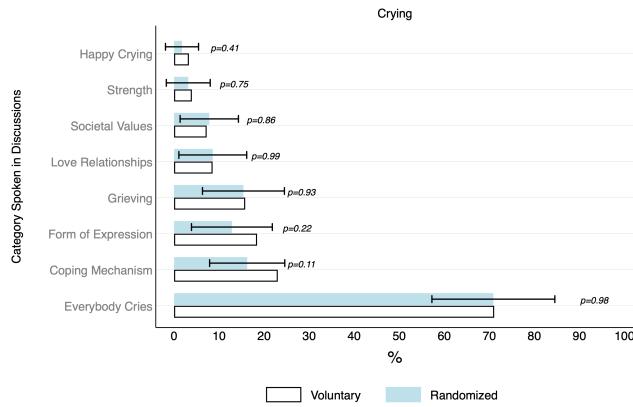


(b) Girls

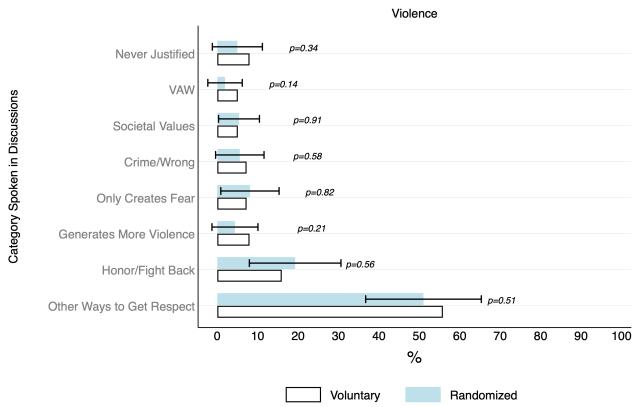
Note: This figure plots the regression coefficients of the boys' (Panel a) and girls' (Panel b) misperceptions about crying and violence on a series of baseline characteristics. The regression includes treatment dummies and school-classroom fixed effects. Horizontal bars indicate 90% confidence intervals. Standard errors are clustered at the school-classroom level.

Figure A9: Narratives to Justify Opinions During the Masculinity Sessions

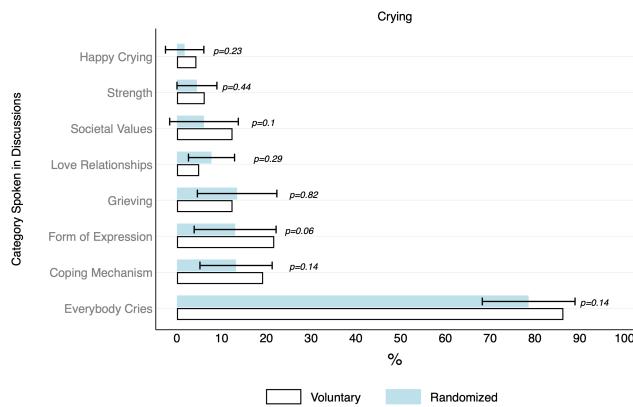
(a) Boys - Men Who Cry Are Weak



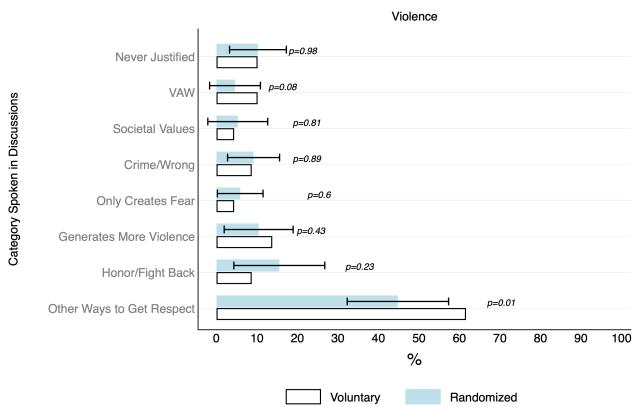
(b) Boys - Men Should Use Violence



(c) Girls - Men Who Cry Are Weak

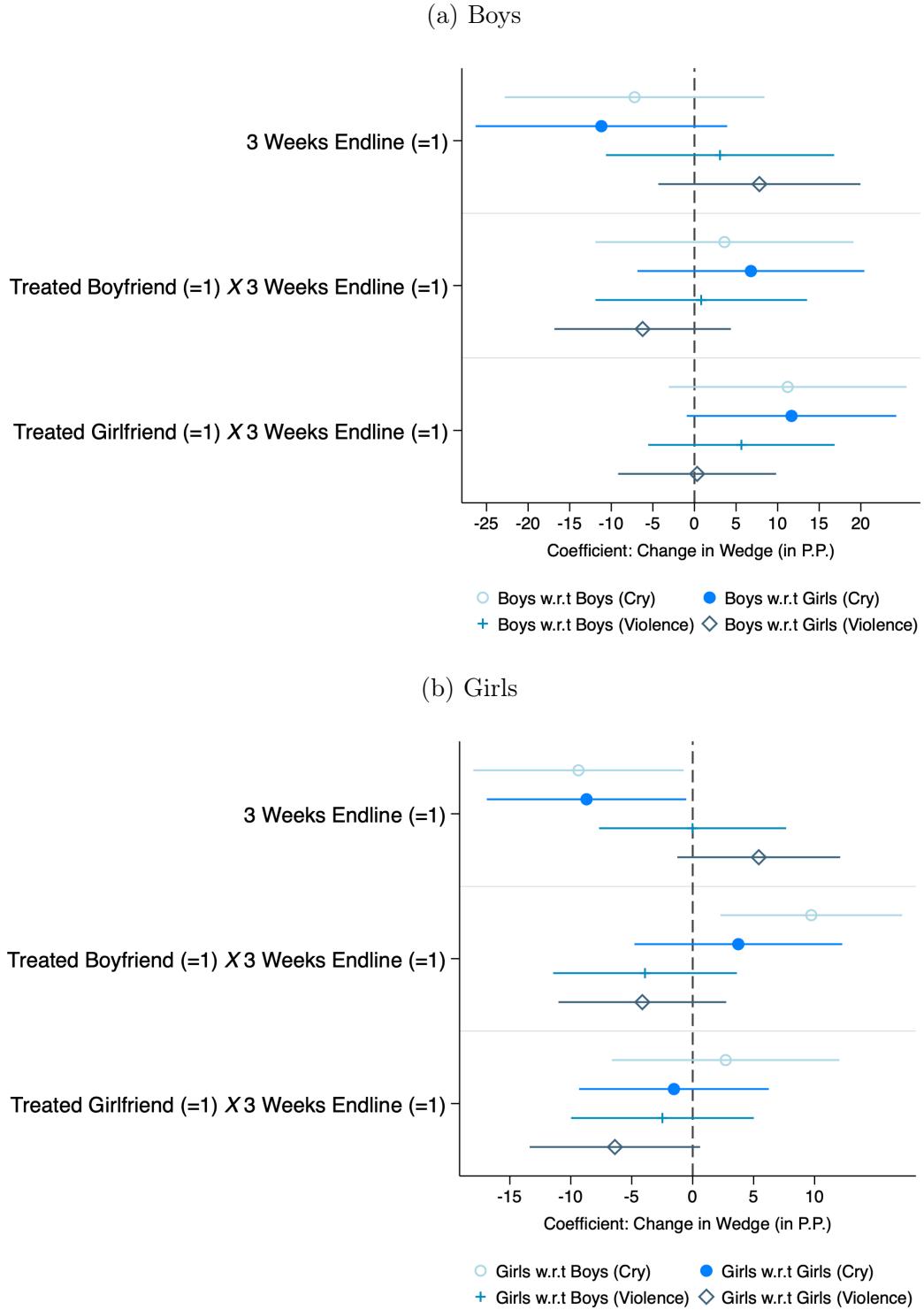


(d) Girls - Men Should Use Violence



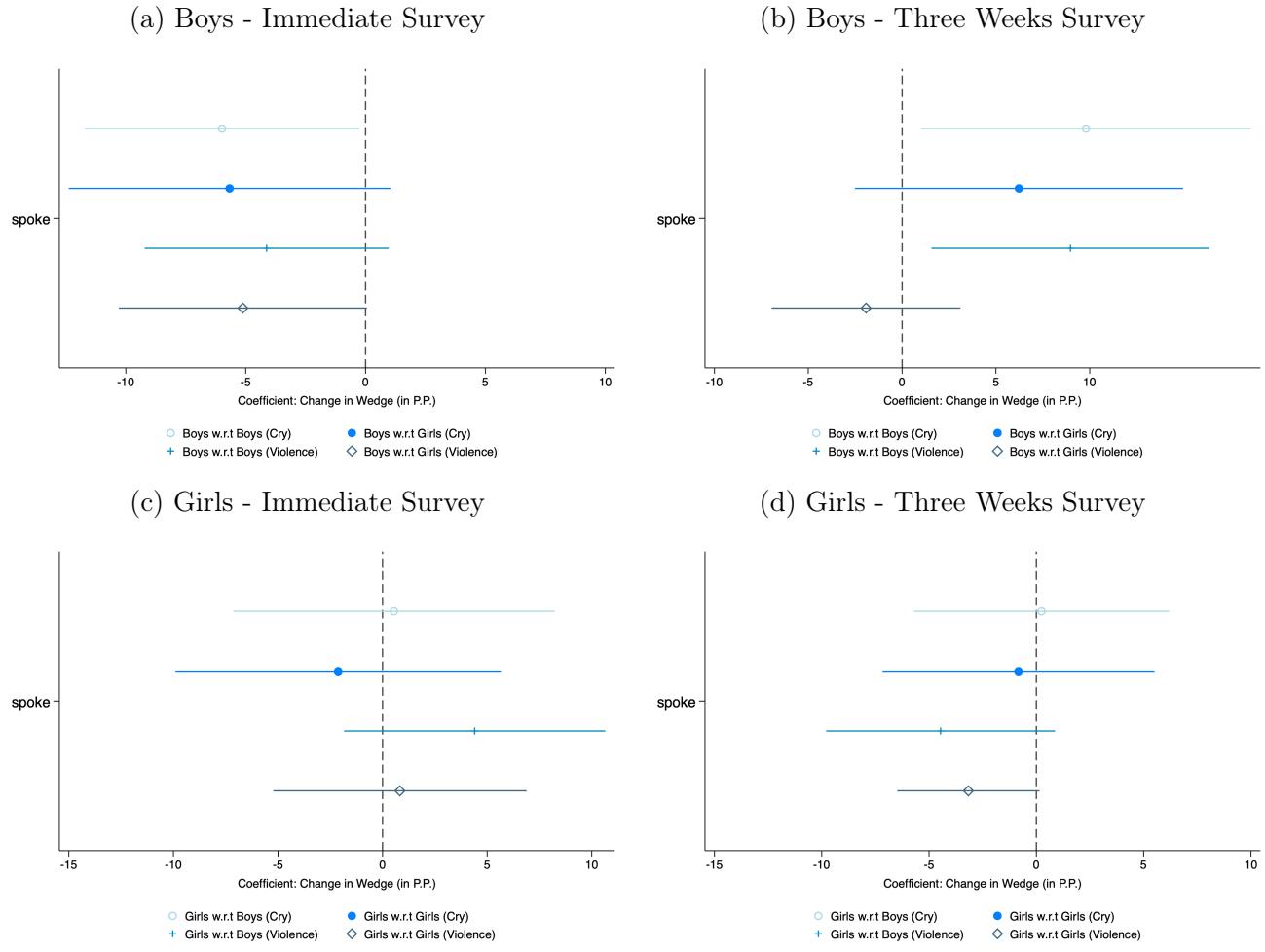
*Notes:* This figure plots the distribution of topics discussed in the masculinity sessions, separated by boys and girls and by discussion type (i.e. *Voluntary* and *Randomized*). The bars represent the percentage of times a topic was mentioned. Note that the categories were not mutually exclusive, so the sum within each group is above 100%.

Figure A10: Change in Misperceptions Between the Immediate and the Three Weeks Follow Up, Among the Control Group



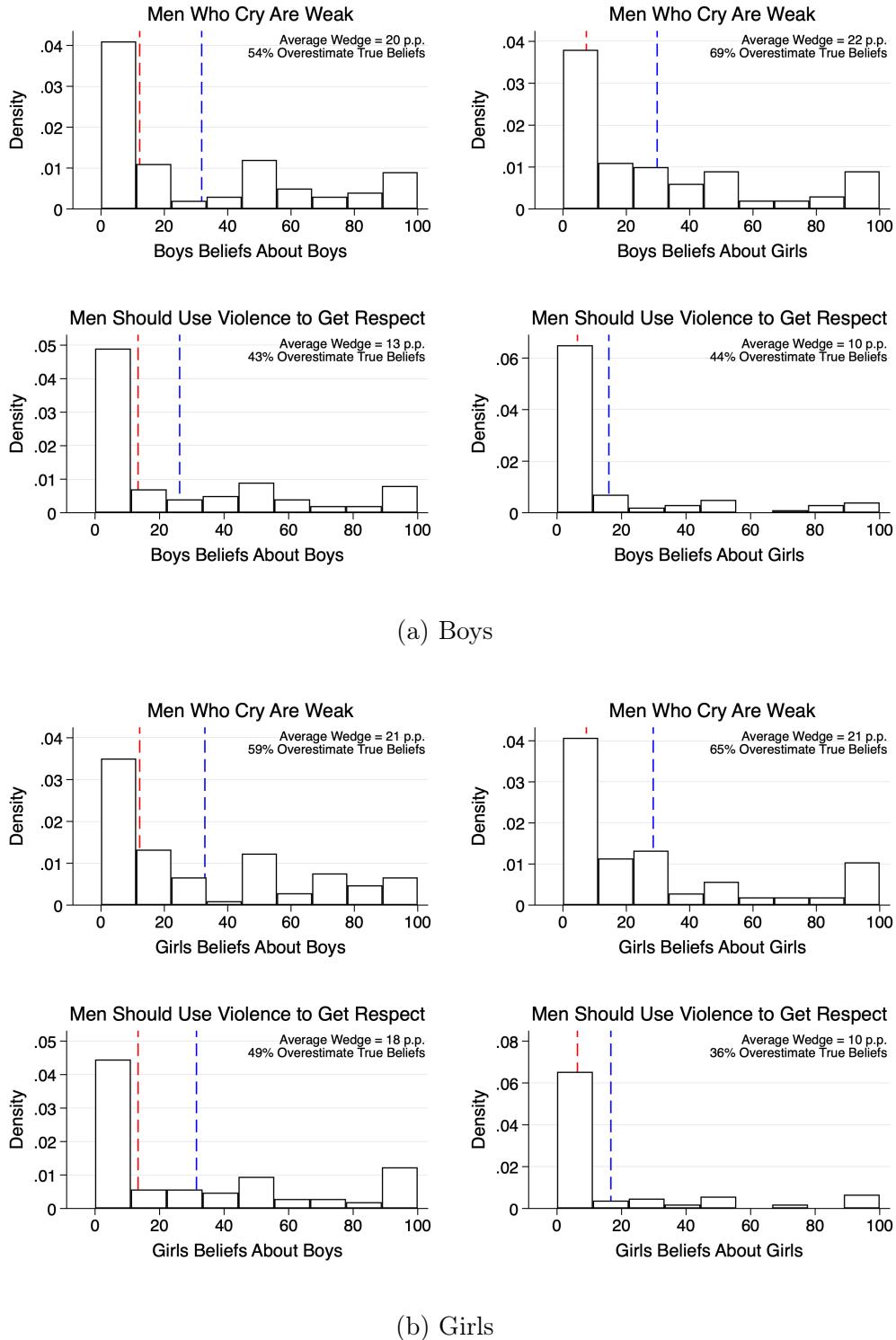
*Notes:* This figure plots the coefficients of regressions among control participants from their wedges with respect to boys' and girls' beliefs on a dummy equals 1 if the wedge was measured in the three weeks endline and 0 if it was measured in the immediate endline; an interaction term between a dummy equals 1 if they have at least one treated boyfriend and the three weeks endline dummy; an interaction term between a dummy equals 1 if they have at least one treated girlfriend and the three weeks endline dummy; including individual fixed effects. Horizontal bars indicate 90% confidence intervals. Standard errors are clustered at the school-classroom level.

Figure A11: Causal Effects of Speaking vs Listening in the *Randomized* Discussions



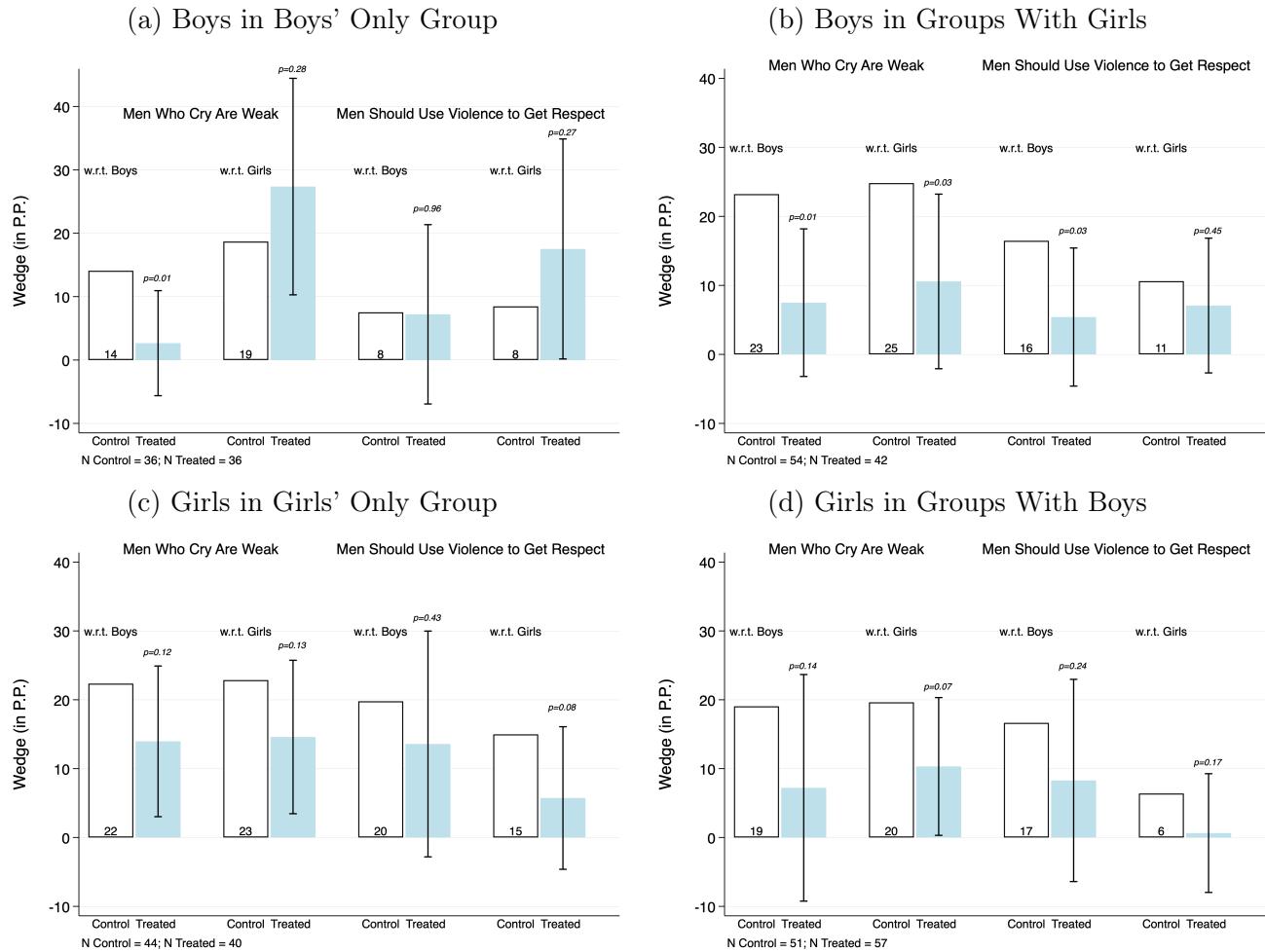
*Notes:* This figure plots the coefficients on the effects of speaking in the *Randomized* discussions. The coefficients are from an IV regression, in which I instrument the realized speaking in the regression by the theoretical random assignment for speaking. The dependent variables are the immediate (Panels a and c) three weeks misperceptions (Panels b and d). I control for the misperception at the immediate survey in the regressions for the three weeks misperceptions. All regressions include school-fixed effects. Standard errors clustered at the school-classroom level.

Figure A12: Distribution of Second Order Beliefs About Masculinity (Supplementary Experiment)



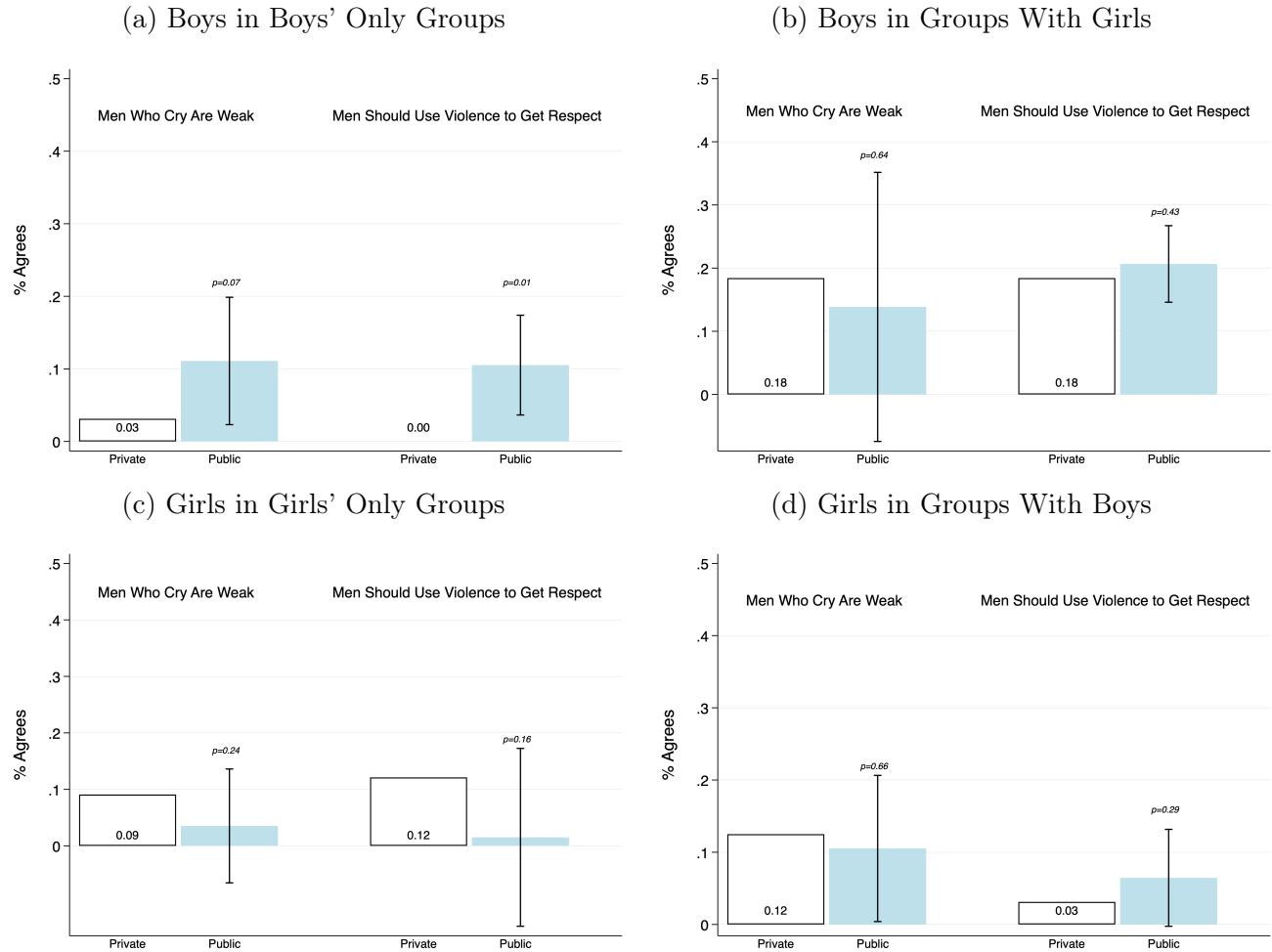
*Notes:* This figure plots the distribution of boys' and girls' endline guesses in the control group about the share of their male and female classmates they think agree with the statements *men who cry are weak* and *men should use violence to get respect if necessary* (i.e. their second order beliefs). The sample consists of 376 girls and 328 boys in the control group, as the second-order beliefs are only elicited at the endline. **Red** dashed line plots average first order beliefs. **Blue** dashed line plots average second order beliefs.

Figure A13: Effects By Sex Composition of the Group (Supplementary Experiment)



*Notes:*

Figure A14: Boys in Boys-Only Group Are More Masculine in Public, Whereas Girls in Girls-Only Group Are Less Masculine in Public (Supplementary Experiment)



*Notes:* The public opinions are the average reported opinions across all reporters. This includes control participants' opinions only (i.e., those who responded to the outcome variables before the discussion).

## Online Appendix B: Supplementary Tables

Table B1: Baseline Characteristics - By Sex And Treatment Status

	Boys			P-Value	Girls			P-Value
	Voluntary (N = 384) (1)	Randomized (N = 383) (2)	Control (N = 328) (3)		Voluntary (N = 411) (4)	Randomized (N = 367) (5)	Control (N = 376) (6)	
Age	13.94 (0.97)	13.93 (0.99)	13.99 (0.86)	0.58	13.90 (0.87)	13.82 (0.85)	13.91 (0.88)	0.26
White	0.27 (0.45)	0.29 (0.45)	0.35 (0.48)	0.09*	0.37 (0.48)	0.29 (0.46)	0.31 (0.46)	0.06*
Black	0.68 (0.47)	0.65 (0.48)	0.59 (0.49)	0.05*	0.59 (0.49)	0.64 (0.48)	0.64 (0.48)	0.30
Evangelical	0.43 (0.50)	0.38 (0.49)	0.42 (0.49)	0.44	0.37 (0.48)	0.39 (0.49)	0.34 (0.47)	0.25
Catholic	0.20 (0.40)	0.21 (0.41)	0.20 (0.40)	0.91	0.17 (0.37)	0.17 (0.38)	0.17 (0.38)	0.97
Lives W/ Mother	0.82 (0.39)	0.86 (0.34)	0.84 (0.37)	0.20	0.86 (0.35)	0.88 (0.33)	0.85 (0.36)	0.50
Lives W/ Father	0.46 (0.50)	0.48 (0.50)	0.43 (0.50)	0.36	0.42 (0.49)	0.45 (0.50)	0.41 (0.49)	0.44
Lives W/ Step Father	0.14 (0.34)	0.14 (0.35)	0.16 (0.37)	0.66	0.13 (0.34)	0.15 (0.36)	0.15 (0.35)	0.81
Talks to Friends About Boys	0.08 (0.28)	0.08 (0.26)	0.11 (0.31)	0.28	0.47 (0.50)	0.55 (0.50)	0.52 (0.50)	0.06*
Talks to Friends About Girls	0.50 (0.50)	0.48 (0.50)	0.51 (0.50)	0.66	0.31 (0.46)	0.29 (0.46)	0.36 (0.48)	0.11
Talks to Friends About Personal Life	0.36 (0.48)	0.35 (0.48)	0.36 (0.48)	0.95	0.65 (0.48)	0.66 (0.47)	0.64 (0.48)	0.78
Talks to Friends About Situations That Made You Sad	0.16 (0.37)	0.17 (0.38)	0.15 (0.36)	0.77	0.45 (0.50)	0.49 (0.50)	0.44 (0.50)	0.27
Talks to Friends About Feelings or Personal Problems	0.44 (0.50)	0.42 (0.49)	0.38 (0.49)	0.23	0.65 (0.48)	0.67 (0.47)	0.66 (0.47)	0.84
Talks to Friends About What Society Expects from a Man	0.23 (0.42)	0.26 (0.44)	0.23 (0.42)	0.65	0.50 (0.50)	0.44 (0.50)	0.52 (0.50)	0.07*
Would Like More Emotional Support from Male Friends	0.42 (0.49)	0.46 (0.50)	0.40 (0.49)	0.18				
Would Like More Emotional Support from Female Friends					0.75 (0.43)	0.79 (0.41)	0.76 (0.43)	0.32
Importance Given To Popularity, 0-4	1.05 (1.25)	1.23 (1.33)	1.10 (1.28)	0.14	0.63 (1.00)	0.70 (1.02)	0.80 (1.11)	0.12
Influenced by School Girls, 0-3	0.99 (0.93)	1.09 (0.94)	0.93 (0.90)	0.07*	0.54 (0.86)	0.61 (0.90)	0.65 (0.91)	0.21
Influenced by School Boys, 0-3	1.05 (0.97)	0.99 (0.97)	0.94 (0.98)	0.32	0.92 (0.96)	0.98 (0.98)	1.04 (0.97)	0.26
Agrees With Men Who Cry Are Weak	0.10 (0.30)	0.09 (0.29)	0.11 (0.32)	0.68	0.03 (0.18)	0.04 (0.20)	0.06 (0.23)	0.30
Agrees With Men Should Use Violence to Get Respect	0.18 (0.38)	0.15 (0.36)	0.17 (0.38)	0.63	0.07 (0.25)	0.04 (0.20)	0.05 (0.21)	0.32
Vocality Score	4.18 (4.48)	4.01 (4.24)	3.68 (4.15)	0.30	4.23 (4.36)	4.60 (4.78)	4.38 (4.45)	0.51
Social Network Score	2.09 (1.55)	1.89 (1.48)	2.09 (1.56)	0.10*	2.07 (1.43)	2.13 (1.48)	2.15 (1.52)	0.75
Admiration Score	1.55 (1.78)	1.45 (1.73)	1.46 (1.79)	0.70	2.34 (2.62)	2.35 (2.67)	2.48 (2.52)	0.69
Social Desirability Score, 0-4	2.84 (0.93)	2.82 (1.00)	2.77 (0.97)	0.69	2.85 (0.92)	2.83 (0.98)	2.80 (0.92)	0.75
Masculinity Score, 0-4	1.14 (0.95)	1.21 (1.08)	1.17 (1.07)	0.66	0.52 (0.82)	0.55 (0.83)	0.55 (0.88)	0.85
Gave WhatsApp	0.82 (0.38)	0.76 (0.43)	0.82 (0.39)	0.12	0.87 (0.34)	0.89 (0.32)	0.86 (0.34)	0.67

*Notes:* This table presents baseline characteristics (mean and standard deviation in parenthesis), by sex, treatment groups and control group. Within sex, it presents the p-value of a joint F-test for comparison across treatment arms.

Table B2: WhatsApp Sample Characteristics - By Sex and Treatment Status

	Boys				Girls				P-Value
	Voluntary (N = 126)	Randomized (N = 132)	Control (N = 117)	P-Value	Voluntary (N = 193)	Randomized (N = 173)	Control (N = 163)	P-Value	
Age	13.77 (0.84)	14.07 (0.99)	14.07 (0.87)	0.01***	13.90 (0.84)	13.87 (0.80)	14.00 (0.90)	0.32	
White	0.28 (0.45)	0.31 (0.46)	0.37 (0.48)	0.34	0.40 (0.49)	0.29 (0.46)	0.37 (0.48)	0.07*	
Black	0.68 (0.47)	0.63 (0.48)	0.56 (0.50)	0.16	0.55 (0.50)	0.63 (0.48)	0.60 (0.49)	0.32	
Evangelical	0.45 (0.50)	0.38 (0.49)	0.44 (0.50)	0.44	0.35 (0.48)	0.40 (0.49)	0.31 (0.46)	0.16	
Catholic	0.21 (0.41)	0.27 (0.45)	0.24 (0.43)	0.56	0.20 (0.40)	0.19 (0.39)	0.21 (0.41)	0.80	
Lives W/ Mother	0.83 (0.38)	0.89 (0.32)	0.79 (0.41)	0.10	0.88 (0.33)	0.88 (0.33)	0.87 (0.34)	0.93	
Lives W/ Father	0.42 (0.50)	0.52 (0.50)	0.47 (0.50)	0.28	0.44 (0.50)	0.49 (0.50)	0.42 (0.50)	0.45	
Lives W/ Step Father	0.13 (0.34)	0.16 (0.37)	0.18 (0.39)	0.53	0.14 (0.35)	0.12 (0.33)	0.13 (0.34)	0.91	
Talks to Friends About Boys	0.06 (0.24)	0.12 (0.33)	0.14 (0.35)	0.08*	0.46 (0.50)	0.56 (0.50)	0.56 (0.50)	0.08*	
Talks to Friends About Girls	0.42 (0.49)	0.49 (0.50)	0.48 (0.50)	0.43	0.31 (0.46)	0.27 (0.44)	0.38 (0.49)	0.08*	
Talks to Friends About Personal Life	0.43 (0.50)	0.43 (0.50)	0.45 (0.50)	0.92	0.70 (0.46)	0.71 (0.46)	0.70 (0.46)	0.97	
Talks to Friends About Situations That Made You Sad	0.16 (0.37)	0.21 (0.41)	0.15 (0.36)	0.41	0.52 (0.50)	0.51 (0.50)	0.45 (0.50)	0.34	
Talks to Friends About Feelings or Personal Problems	0.42 (0.49)	0.44 (0.50)	0.36 (0.48)	0.44	0.62 (0.49)	0.65 (0.48)	0.71 (0.46)	0.26	
Talks to Friends About What Society Expects from a Man	0.20 (0.40)	0.29 (0.45)	0.24 (0.43)	0.32	0.51 (0.50)	0.47 (0.50)	0.55 (0.50)	0.37	
Would Like More Emotional Support from Male Friends	0.39 (0.49)	0.41 (0.49)	0.41 (0.49)	0.89					
Would Like More Emotional Support from Female Friends					0.76 (0.43)	0.78 (0.41)	0.80 (0.40)	0.59	
Importance Given To Popularity, 0-4	0.95 (1.15)	1.16 (1.27)	0.79 (1.03)	0.04**	0.60 (0.98)	0.72 (0.99)	0.86 (1.15)	0.08*	
Influenced by School Girls, 0-3	0.86 (0.83)	1.02 (0.87)	0.84 (0.79)	0.16	0.49 (0.83)	0.58 (0.81)	0.58 (0.84)	0.48	
Influenced by School Boys, 0-3	1.00 (0.92)	1.02 (0.92)	0.89 (0.93)	0.51	0.91 (0.93)	0.99 (0.95)	1.01 (0.94)	0.62	
Agrees With Men Who Cry Are Weak	0.07 (0.25)	0.04 (0.20)	0.09 (0.28)	0.30	0.02 (0.13)	0.03 (0.17)	0.03 (0.17)	0.61	
Agrees With Men Should Use Violence to Get Respect	0.14 (0.35)	0.11 (0.32)	0.11 (0.32)	0.67	0.03 (0.18)	0.02 (0.12)	0.04 (0.20)	0.24	
Vocality Score	5.08 (5.23)	4.85 (4.48)	5.30 (5.16)	0.77	4.61 (4.60)	4.95 (4.98)	5.17 (4.85)	0.55	
Social Network Score	2.38 (1.63)	2.11 (1.33)	2.17 (1.67)	0.34	2.25 (1.44)	2.19 (1.43)	2.33 (1.60)	0.69	
Admiration Score	1.90 (2.29)	1.73 (1.82)	1.74 (2.22)	0.77	2.60 (2.77)	2.59 (2.72)	2.90 (2.75)	0.49	
Social Desirability Score, 0-4	2.89 (0.88)	2.87 (1.06)	2.91 (0.94)	0.95	2.88 (0.91)	2.80 (0.99)	2.80 (0.92)	0.62	
Masculinity Score, 0-4	1.11 (0.92)	1.05 (1.06)	1.09 (1.08)	0.89	0.42 (0.71)	0.51 (0.77)	0.47 (0.80)	0.45	
Gave WhatsApp	1.00 (0.00)	1.00 (0.00)	1.00 (0.00)		1.00 (0.00)	1.00 (0.00)	1.00 (0.00)		

*Notes:* This table presents baseline characteristics (mean and standard deviation in parenthesis), by sex, treatment groups and control group. Within sex, it presents the p-value of a joint F-test for comparison across treatment arms.

Table B3: Schools' Characteristics - All and Study Schools

	All Schools (1)	Main Experiment (2)	Small-Scale (3)	All-Main P-Value (4)	All-Small P-Value (5)	Main-Small P-Value (6)	Joint P-Value (7)
Boys	0.51 (0.03)	0.51 (0.04)	0.50 (0.02)	0.40	0.55	0.70	0.49
Black	0.55 (0.09)	0.54 (0.09)	0.57 (0.16)	0.68	0.65	0.70	0.88
Students per Class	32.94 (4.21)	33.23 (3.31)	32.25 (4.25)	0.74	0.78	0.64	0.86
Students per Teacher	20.51 (24.01)	12.41 (5.22)	11.02 (6.92)	0.11	0.49	0.69	0.00***
Internet for Learning	0.52 (0.50)	0.68 (0.48)	0.33 (0.58)	0.13	0.51	0.23	0.22
Lunchroom	0.99 (0.12)	0.95 (0.21)	1.00 (0.00)	0.23	0.83	0.31	0.01**
Sport Court	0.83 (0.38)	0.82 (0.39)	1.00 (0.00)	0.91	0.43	0.03**	0.00***
Green Area	0.43 (0.50)	0.36 (0.49)	0.67 (0.58)	0.54	0.40	0.30	0.56
Number of Classrooms in Use	14.06 (5.41)	13.05 (4.80)	16.33 (7.51)	0.37	0.47	0.37	0.49
Student Union	0.83 (0.37)	0.91 (0.29)	1.00 (0.00)	0.33	0.44	0.14	0.00***
Accessible Facilities	0.59 (0.49)	0.50 (0.51)	0.33 (0.58)	0.36	0.36	0.57	0.41

*Notes:* This table compares the means of student and school characteristics from Rio de Janeiro's School Census and this paper's Main and Supplementary Experiments. Columns (1), (2), and (3) present the respective variable means for each sample. Column (4) presents the results of a t-test comparing the variable means between the School Census and the Main Experiment; (5) does the same for the School Census and the Supplementary Experiment; (6) compares the Main and Supplementary Experiments; and finally (7) [INSERT TEXT HERE]

Table B4: Students' Characteristics - Comparison Main and Supplementary Experiments

	Boys			Girls		
	Main Experiment (1)	Small-Scale (2)	P-Value (3)	Main Experiment (4)	Small-Scale (5)	P-Value (6)
Age	13.95 (0.95)	14.03 (0.58)	0.08*	13.88 (0.87)	13.87 (0.60)	0.93
White	0.30 (0.46)	0.20 (0.40)	0.00***	0.32 (0.47)	0.27 (0.44)	0.02**
Black	0.65 (0.48)	0.78 (0.42)	0.00***	0.62 (0.48)	0.68 (0.47)	0.02**
Evangelical	0.41 (0.49)	0.32 (0.47)	0.00***	0.37 (0.48)	0.39 (0.49)	0.28
Catholic	0.20 (0.40)	0.15 (0.36)	0.01***	0.17 (0.38)	0.10 (0.30)	0.00***
Lives W/ Mother	0.84 (0.37)	0.87 (0.33)	0.08*	0.86 (0.35)	0.88 (0.33)	0.29
Lives W/ Father	0.46 (0.50)	0.38 (0.49)	0.00***	0.43 (0.50)	0.36 (0.48)	0.01***
Lives W/ Step Father	0.14 (0.35)	0.25 (0.43)	0.00***	0.14 (0.35)	0.16 (0.36)	0.49
Talks to Friends About Boys	0.09 (0.28)	0.09 (0.29)	0.89	0.51 (0.50)	0.42 (0.49)	0.00***
Talks to Friends About Girls	0.50 (0.50)	0.56 (0.50)	0.01**	0.32 (0.47)	0.24 (0.43)	0.00***
Talks to Friends About Situations That Made You Sad	0.16 (0.37)	0.13 (0.34)	0.14	0.46 (0.50)	0.41 (0.49)	0.05**
Agrees With Men Who Cry Are Weak	10.05 (30.07)	0.10 (0.30)	0.00***	4.42 (20.56)	0.05 (0.22)	0.00***
Agrees With Men Should Use Violence to Get Respect	16.80 (37.41)	0.12 (0.32)	0.00***	5.29 (22.39)	0.05 (0.22)	0.00***
Social Desirability Score, 0-4	2.81 (0.97)	2.86 (0.97)	0.30	2.83 (0.94)	2.92 (0.92)	0.07*
Masculinity Score, 0-4	1.17 (1.03)	1.58 (1.07)	0.00***	0.54 (0.84)	1.15 (1.13)	0.00***

*Notes:* In this table, columns (1), (2), (4), and (5) present the mean student characteristics by experiment and sex. Columns (3) and (6) show the p-value of the t-test comparing the means of each variable between the Main and Supplementary Experiments, for boys and girls, respectively.

Table B5: Balance Tests - Supplementary Experiment

	Boys			Girls		
	Treated (1)	Control (2)	P-Value (3)	Treated (4)	Control (5)	P-Value (6)
Age	14.01 (0.59)	14.05 (0.57)	0.36	13.87 (0.63)	13.88 (0.56)	0.87
White	0.22 (0.42)	0.18 (0.39)	0.23	0.39 (0.49)	0.15 (0.36)	0.00***
Black	0.76 (0.43)	0.80 (0.40)	0.22	0.53 (0.50)	0.83 (0.38)	0.00***
Evangelical	0.35 (0.48)	0.28 (0.45)	0.06*	0.37 (0.48)	0.42 (0.49)	0.21
Catholic	0.11 (0.32)	0.19 (0.40)	0.01***	0.09 (0.29)	0.11 (0.32)	0.41
Lives W/ Mother	0.87 (0.34)	0.88 (0.32)	0.56	0.92 (0.28)	0.84 (0.36)	0.01***
Lives W/ Father	0.34 (0.47)	0.43 (0.50)	0.02**	0.39 (0.49)	0.32 (0.47)	0.10*
Lives W/ Step Father	0.29 (0.45)	0.20 (0.40)	0.02**	0.16 (0.37)	0.15 (0.36)	0.88
Talks to Friends About Boys	0.11 (0.32)	0.06 (0.24)	0.04**	0.36 (0.48)	0.49 (0.50)	0.00***
Talks to Friends About Girls	0.56 (0.50)	0.56 (0.50)	0.93	0.19 (0.40)	0.28 (0.45)	0.02**
Talks to Friends About Situations That Made You Sad	0.16 (0.36)	0.10 (0.30)	0.06*	0.42 (0.49)	0.41 (0.49)	0.81
Social Desirability Score, 0-4	2.88 (0.92)	2.84 (1.03)	0.60	3.03 (0.92)	2.80 (0.91)	0.00***
Masculinity Score, 0-4	1.49 (1.13)	1.69 (0.99)	0.03**	1.06 (1.08)	1.24 (1.16)	0.07*

Notes: This table shows the mean student characteristics by sex and treatment arm in columns (1), (2), (4), and (5). Columns (3) and (6) present the p-values of the t-test comparing the means between the control and treatment groups, by sex.

Table B6: First-stage among randomized speakers

	Spoke		
	All	Boys	Girls
	(1)	(2)	(3)
Randomly Assigned to Speak	0.849*** (0.036)	0.838*** (0.046)	0.852*** (0.047)
Observations	750	382	366
F-Stat	548.16	332.66	334.45
School FE	Yes	Yes	Yes

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

Notes: This table presents regression coefficients within the sample of those in the *Randomized* group only. The dependent variable is a dummy equal to 1 if a participant spoke in the discussion. The independent variable of interest is a dummy equal to 1 if the speaker was randomly assigned to speak in the *Randomized* discussion. All regressions include school-classroom fixed effects and standard errors clustered at the school-classroom level.

 Table B7: *Randomized* and *Voluntary* Speakers' Private and Public Opinions Comparison

	Private Opinions			Public Opinions		
	Cry	Violence	Mean	Cry	Violence	Mean
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Panel A: Boys Who Spoke</b>						
Vocal	-3.799 (2.685)	-11.592*** (4.275)	-7.695** (2.958)	0.017 (0.033)	-0.070 (0.059)	-0.026 (0.038)
Observations	329	329	329	328	329	329
Dep. Var. Mean ( <i>Randomized</i> Speakers)	8.82	19.41	14.12	0.07	0.23	0.15
School FE	Yes	Yes	Yes	Yes	Yes	Yes
<b>Panel B: Girls Who Spoke</b>						
<i>Voluntary</i> Speaker	0.286 (1.782)	-1.983 (2.405)	-0.849 (1.705)	0.022 (0.014)	-0.021 (0.048)	0.000 (0.026)
Observations	332	332	332	332	332	332
Dep. Var. Mean ( <i>Randomized</i> Speakers)	1.81	6.63	4.22	0.00	0.10	0.05
School FE	Yes	Yes	Yes	Yes	Yes	Yes

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

Notes: This table presents regression coefficients within the sample of speakers in the *Voluntary* and *Randomized* groups. The dependent variables are participants' private and public opinions about crying (Columns 1 and 4, respectively), violence (Column 2 and 5, respectively), and the average public and private opinions across crying and violence (Columns 3 and 6, respectively). The independent variable of interest is a dummy equals 1 if the speaker was in the *Voluntary* group, and 0 if in the *Randomized* group. All regressions include school fixed effects and standard errors clustered at the school-classroom level.

Table B8: *Voluntary* Speakers Only Differ From Randomized Ones in a Vocality Score

	Vocality	Popularity	Admiration	Masculinity	Social Desirability
	(1)	(2)	(3)	(4)	(5)
<b>Panel A: Boys</b>					
Voluntary	0.950*	-0.013	-0.023	-0.087	-0.028
	(0.495)	(0.160)	(0.185)	(0.114)	(0.099)
Observations	329	329	329	329	329
School Fixed Effects	Yes	Yes	Yes	Yes	Yes
Randomized Mean	3.95	2.02	1.51	1.15	2.85
<b>Panel B: Girls</b>					
Voluntary	1.267**	0.089	0.374	0.031	-0.186*
	(0.523)	(0.154)	(0.348)	(0.075)	(0.111)
Observations	332	332	332	332	332
School Fixed Effects	Yes	Yes	Yes	Yes	Yes
Randomized Mean	4.36	2.01	2.39	0.46	2.92

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

*Notes:* This table presents regressions of each dependent variable on an indicator if a person spoke in the *Voluntary* group, where the omitted category is a person who spoke in the *Randomized* group. *Vocality*, *Network*, and *Admiration* are the count of how many times a participant was selected by their friends as being, respectively: among the top 5 most talkative people in the class, among the people someone spent the most time with in the last week, among the people someone admires the most. *Masculinity* is a score from 0 to 4 from a Masculinity Scale, with a larger number for self-reports of more traditionally masculine beliefs. *Desirability* is a score from 0 to 4 from the Social Desirability Scale, with a larger number meaning that the person gives more socially desirable answers. Standard errors are clustered at the classroom level.

Table B9: Categories and Examples Shared in the Masculinity Discussions

Men Who Cry Are Weak			Men Should Use Violence to Get Respect When Necessary		
Category	Quote	Frequency	Category	Quote	Frequency
Coping Mechanism	When you're having a bad day, out of disappointment, you cry because you feel like it	110	Other Ways to Get Respect	You have to treat others as you would like to be treated, you don't have to use bad words or physical violence to be respected	307
Relative/ Depends	I think men don't always need to cry. Ex: if they took a weak slap, they don't need to cry	14	Generates fear	If you use violence you will not be respected you will be feared	38
Everybody Has Feelings	Man has the right to cry, crying is human	462	Generates more violence	Men shouldn't use violence, violence brings even more violence, if you want to be respected you have to treat them with respect.	58
Form of Expression	It's a body's feeling, men cry when something happens to the familiar or they get hurt, crying takes the pain out	102	Honour/fight back	Most of the time you don't have to use violence, you can use violence to defend yourself or when someone is offending you	94
Grieving	When you lose someone in your family, when you lose a childhood friend	86	Crime/Wrong/ Bad	It's wrong. My dad never beat me and I respect him for that.	42
Happy Crying	Crying when you win a competition	18	Never Justified/Doesn't	Because that way you won't get anywhere, we need education to get somewhere	50
Love Relationships	I saw my brother crying after a breakup	44	Society/Machismo	If women can't beat others, men can't either	30
Societal/Family Values	Boys are raised told by their parents not to cry	51	Violence Against Women	I saw my brother having a jealousy crisis with his girlfriend and beat her. I felt distressed.	34
Strength	Showing feelings is a sign of strength, the person who holds on to himself cannot cry and express himself	27			

*Notes:* This table presents examples of students' statements during masculinity discussions, categorized by the research assistants according to the content of the statements.

Table B10: Social Desirability Does Not Drive Differential Effects on Misperceptions Across Treatment Groups

	Men Who Cry Are Weak						Men Should Use Violence		
	Boys		Girls		Boys		Boys		Girls
	To Boys (1)	To Girls (2)	To Boys (3)	To Girls (4)	To Boys (5)	To Girls (6)	To Boys (7)	To Girls (8)	
<b>Panel A: School Endline - Immediately After Treatment</b>									
Voluntary	-8.753*** (3.623)	-13.813*** (3.667)	-9.758*** (3.456)	-14.210*** (3.984)	-10.094** -9.335** (4.087)	-1.340 -7.870 (4.228) (3.408)	-6.722 -1.140 (4.110) (3.401)	0.303 0.547 (3.471)	
Randomized	-7.912* (4.195)	-11.662** (4.496)	-11.214*** (3.824)	-9.335** (4.087)	-7.870 -2.286 (5.085)	-1.140 -6.677 (3.404)	-7.458* -4.854* (4.011)		
High Social Desirability Score	-2.979 (3.503)	-3.294 (3.425)	-0.722 (3.379)	-2.286 (3.485)	-6.677 -0.054 (4.256)	-2.840 -0.720 (2.692)	-2.672 -0.720 (3.553)		
High Social Desirability Score $\times$ Voluntary	-2.360 (4.534)	0.513 (4.687)	-4.068 (4.687)	1.316 (4.873)	0.812 -0.054 (4.918)	0.058 -1.258 (3.656)	0.905 -0.053 (4.578)		
High Social Desirability Score $\times$ Randomized	-3.761 (4.808)	-1.867 (4.561)	-2.212 (4.406)	-0.054 (4.966)	-1.258 -0.720 (5.764)	-0.595 -0.053 (3.753)			
Observations	1095	1095	1154	1154	1095	1095	1154		
Control Mean	23.57	24.47	27.68	11.82	10.15	5.83	9.96		
School FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
<b>Panel B: WhatsApp Endline - 3 Weeks After Treatment</b>									
Voluntary	-16.313** (7.961)	-11.684 (7.124)	-8.463 (5.377)	-6.501 (4.692)	-20.969*** -13.291*** (7.506)	-10.303 -10.364* (6.203)	-8.073 -13.334** (5.733)	-3.560 (3.751)	
Randomized	-18.122** (8.331)	-7.092 (7.841)	-24.167*** (4.704)	-13.291*** (3.876)	-26.366*** -19.715** (7.953)	-10.364* -6.393 (6.033)	-13.334** -1.136 (5.087)	-5.024* (2.857)	
High Social Desirability Score	-18.080*** (6.273)	-1.631 (6.449)	-3.892 (5.008)	-1.552 (3.842)	-19.715** -19.711 (7.711)	-6.393 -1.136 (5.897)	-0.911 -0.911 (5.637)		
High Social Desirability Score $\times$ Voluntary	7.979 (8.245)	1.033 (7.743)	0.346 (6.376)	4.022 -11.315* (6.230)	19.084** 8.477* (9.113)	8.297 18.520** (7.228)	1.443 4.075 (6.741)	2.798 (4.272)	
High Social Desirability Score $\times$ Randomized	9.218 (8.530)	-1.838 (8.924)	11.315* (5.959)	8.477* (5.051)	18.520** -10.051 (8.301)	3.470 4.075 (6.560)	0.981 0.981 (6.444)		
Observations	354	354	504	504	342	342	490		
Control Mean	19.78	13.94	20.98	11.16	8.09	5.22	9.87		
School FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes		

\*\*\* p<0.001, \*\* p<0.05, \* p<0.1

*Notes:* Social desirability (SD) score is a baseline measure of the student's propensity to give socially desirable answers. High SD score refers to having a score that is equal to or above median for the sample. The outcome variables are the misperceptions, in percentage points, of boys' beliefs about boys and girls for the statement that *Men Who Cry Are Weak* (Columns 1 and 2) and *Men Should Use Violence to Get Respect If Necessary* (Columns 3 and 4) at endline 1 (Panel A) and endline 2 (Panel C). Panels B and D report the same regressions for girls. Standard errors are clustered at the classroom level.

Table B11: Girls Suggestively Talk More About the Discussions With Friends - 3 Weeks Effects

	Delta: Men Who Cry Are Weak				Delta: Men Should Violence to Get Respect			
	Boys		Girls		Boys		Girls	
	To Boys	To Girls	To Boys	To Girls	To Boys	To Girls	To Boys	To Girls
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Panel A: Boy-Friends Controls</b>								
Has Any Treated Boy Friends	-6.279 (18.238)	6.188 (9.221)	13.410 (9.597)	-8.455 (12.470)	9.399 (11.842)	2.743 (8.436)	-8.655 (9.996)	2.578 (7.669)
Number of Boy Friends	-1.412 (5.233)	-1.252 (4.575)	1.154 (3.488)	3.124 (2.343)	-3.748 (5.262)	-2.206 (5.726)	2.425 (3.028)	-3.082 (4.492)
<b>Panel B: Girl-Friends Controls</b>								
Has Any Treated Girl Friends	2.879 (12.522)	6.909 (13.350)	3.814 (11.529)	-5.714 (8.290)	0.734 (11.905)	1.814 (11.551)	-5.884 (8.803)	-10.802 (7.172)
Number of Girl Friends	2.758 (7.281)	-4.315 (6.623)	-3.495 (4.331)	0.472 (4.101)	-1.750 (7.590)	-2.829 (6.591)	1.668 (1.959)	3.027 (2.151)
<b>Panel C: Any-Friends Controls</b>								
Has Any Treated Friends	-0.920 (35.365)	7.364 (17.935)	9.595 (11.295)	-5.737 (6.890)	3.485 (23.957)	-11.883 (19.143)	-5.603 (10.260)	-14.292* (7.707)
Number of Friends	0.025 (3.923)	-1.718 (3.232)	-0.113 (2.355)	0.778 (2.018)	-3.255 (3.164)	-3.181 (3.539)	1.040 (1.198)	0.313 (1.797)
Observations	110	110	159	159	107	107	154	154
Dep. Var. Mean	-1.65	-3.16	-5.29	-8.99	5.15	3.29	-2.66	-0.09
School Fixed Effects								

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

Notes:

Table B12: Discussion Groups Make Boys' First-Order Beliefs Less Masculine Immediately and Three Weeks After

	Men Who Cry Are Weak		Men Should Use Violence	
	Boys	Girls	Boys	Girls
	(1)	(2)	(3)	(4)
<b>Panel A: School Endline - Immediately After Treatment</b>				
Voluntary	-0.038** (0.017)	-0.029*** (0.010)	-0.014 (0.028)	-0.021 (0.018)
Randomized	-0.048*** (0.016)	-0.021* (0.011)	-0.036 (0.033)	0.012 (0.020)
Observations	1,095	1,154	1,095	1,154
School Fixed Effects	Yes	Yes	Yes	Yes
Control Mean	0.09	0.04	0.20	0.06
P-Value Treatment Comparison	0.52 (1)	0.28 (2)	0.48 (3)	0.12 (4)
<b>Panel B: Whatsapp Endline - 3 Weeks After Treatment</b>				
Voluntary	-0.011 (0.025)	-0.001 (0.011)	-0.027 (0.057)	0.031 (0.021)
Randomized	-0.044* (0.025)	0.008 (0.013)	-0.107** (0.046)	0.003 (0.021)
Observations	375	529	375	529
School Fixed Effects	Yes	Yes	Yes	Yes
Control Mean	0.08	0.01	0.19	0.04
P-Value Treatment Comparison	0.11	0.50	0.10	0.22

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

*Notes:* This table presents regressions of an indicator for whether participants' agreed with the statements *Men Who Cry Are Weak* (Columns 1 and 2) and *Men Should Use Violence to Get Respect If Necessary* (Column 3 and 4) at endline 1 (Panel A) and endline 2 (Panel B) on treatment status dummies. Regressions include school fixed effects and baseline values of the dependent variables. Standard errors are clustered at the classroom level.

Table B13: Discussion Groups Reduce Boys' Social Image Concerns Toward Less Masculine Behaviors in Public (Pooled)

	Last Cried	Last Violent	Joy of Destruction
	(1)	(2)	(3)
<b>Panel A: All Boys</b>			
Public	0.129 (0.129)	0.070 (0.107)	0.082 (0.120)
Treated	0.012 (0.099)	0.022 (0.095)	0.063 (0.092)
Public × Treated	-0.150 (0.146)	-0.087 (0.133)	-0.115 (0.137)
Observations	1,095	1,095	1,095
School Fixed Effects	Yes	Yes	Yes
Control-Private Mean of Dep. Var	2.07	1.83	0.45
<b>Panel B: Less Masculine Boys (Based on Masculinity Score)</b>			
Public	0.100 (0.201)	0.253 (0.174)	0.141 (0.138)
Treated	0.127 (0.154)	0.061 (0.138)	0.273* (0.154)
Public × Treated	-0.062 (0.253)	-0.290 (0.211)	-0.326* (0.192)
Observations	330	330	330
School Fixed Effects	Yes	Yes	Yes
Control-Private Mean of Dep. Var	1.89	1.44	0.38

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

*Notes:* This table presents regressions of each dependent variable — standardized by the control group mean and standard deviation — on an indicator for whether participants' answers were *public* in the survey experiment, were treated (on either of the discussion groups), and an interaction term between them. *Last Cried (Violent)* are scores from 0 to 5, in which larger values mean they have cried further away in time (been violent more recently). *Joy of Destruction* is a score from 0 to 5, in which 0 means participants will not remove any money from the winner, and 5 means they will remove all the money. The *×Treated* row gives my coefficient of interest, in which a negative value indicates treated participants have lower social image concerns than control participants. Standard errors are clustered at the classroom level.

Table B14: Discussion Group Make Students' Hypothetical Behaviors Less Masculine (By Treatment)

	Last Cried	Last Violent	Joy of Destruction
	(1)	(2)	(3)
<b>Panel A: All Boys</b>			
Public	0.129 (0.129)	0.071 (0.107)	0.083 (0.120)
Voluntary	0.070 (0.117)	-0.036 (0.104)	0.071 (0.116)
Randomized	-0.045 (0.110)	0.079 (0.116)	0.054 (0.107)
Public $\times$ Voluntary	-0.226 (0.172)	-0.031 (0.161)	-0.212 (0.165)
Public $\times$ Randomized	-0.076 (0.158)	-0.141 (0.148)	-0.017 (0.156)
Observations	1,095	1,095	1,095
School FE	Yes	Yes	Yes
P-Value Treatment Comparison (Interaction Terms)	0.33	0.49	0.23
<b>Panel B: Less Masculine Boys (Based on Masculinity Score)</b>			
Public	0.101 (0.201)	0.249 (0.174)	0.140 (0.139)
Voluntary	0.202 (0.161)	-0.085 (0.174)	0.300* (0.178)
Randomized	0.059 (0.198)	0.194 (0.173)	0.250 (0.199)
Public $\times$ Voluntary	-0.185 (0.278)	-0.102 (0.267)	-0.448** (0.204)
Public $\times$ Randomized	0.064 (0.309)	-0.476* (0.248)	-0.189 (0.280)
Observations	330	330	330
School FE	Yes	Yes	Yes
P-Value Treatment Comparison (Interaction Terms)	0.40	0.21	0.39

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

*Notes:* This table presents regressions of each dependent variable – standardized by the control group mean and standard deviation – on an indicator for whether participants' answers were public in the survey experiment, were treated in the *Voluntary* or *Randomized* treatments, and an interaction term between them. *Last Cried* (*Violent*) are scores from 0 to 5, in which larger values mean they have cried further away in time (been violent more recently). *Joy of Destruction* is a score from 0 to 5, in which 0 means participants will not remove any money from the winner, and 5 means they will remove all the money. The p-value tests for equality of the coefficients *Public*  $\times$  *Voluntary* and *Public*  $\times$  *Randomized*, which are my coefficients of interest. Standard errors are clustered at the classroom level.

Table B15: Discussion Group Make Students' Hypothetical Behaviors Less Masculine (By Treatment)

	Would Act Masculine		It's Right to Act Masculine		Peers Would Support Acting Masculine	
	Boys	Girls	Boys	Girls	Boys	Girls
	(1)	(2)	(3)	(4)	(5)	(6)
Voluntary	-0.329*** (0.065)	-0.202*** (0.056)	-0.243*** (0.076)	-0.139** (0.055)	-0.157** (0.078)	-0.336*** (0.078)
Randomized	-0.156** (0.074)	-0.246*** (0.068)	-0.182* (0.095)	-0.115* (0.060)	-0.114 (0.076)	-0.322*** (0.073)
Observations	1,095	1,154	1,095	1,154	1,095	1,154
P-Value Treatment Comparison	0.02	0.50	0.44	0.65	0.48	0.83

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

*Notes:* At the first endline, students were presented with three vignettes. The first one describes a situation in which a boy is afraid of showing their feelings to their other male friends for fearing social sanctions. The second one shows a boy who reacts with violence (e.g. a punch) after their friend refused to lend him a pen. Finally, the last one depicts a girl making a decision on whether to date or not a sensitive boy. For each vignette, I ask students whether they agree or disagree with three dimensions: (i) self-reported behaviours: whether they would act masculine, (ii) normative behaviours: whether they think the masculine behaviour was right, and (iii) school norms: whether their school peers would support acting masculine. This table presents regressions of an index, standardized by the control mean and standard deviation, within each of these three dimensions. Negative coefficients mean treated students become less supportive of masculine behaviours.

Table B16: Discussion Group Make Students' Hypothetical Behaviors Less Masculine (Pooled)

	Would Act Masculine		It's Right to Act Masculine		Peers Would Support Acting Masculine	
	Boys	Girls	Boys	Girls	Boys	Girls
	(1)	(2)	(3)	(4)	(5)	(6)
Treated	-0.242*** (0.060)	-0.223*** (0.053)	-0.213*** (0.077)	-0.128** (0.051)	-0.135* (0.071)	-0.330*** (0.068)
Observations	1,095	1,154	1,095	1,154	1,095	1,154

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

*Notes:* At the first endline, students were presented with three vignettes. The first one describes a situation in which a boy is afraid of showing their feelings to their other male friends for fearing social sanctions. The second one shows a boy who reacts with violence (e.g. a punch) after their friend refused to lend him a pen. Finally, the last one depicts a girl making a decision on whether to date or not a sensitive boy. For each vignette, I ask students whether they agree or disagree with three dimensions: (i) self-reported behaviors: whether they would act masculine, (ii) normative behaviors: whether they think the masculine behavior was right, and (iii) school norms: whether their school peers would support acting masculine. This table presents regressions of an index, standardized by the control mean and standard deviation, within each of these three dimensions. Negative coefficients mean treated students become less supportive of masculine behaviors.

Table B17: Discussion Group Has No Effects on Boys' Self-Reported Behaviors

	Was Involved in Physical Fight	Cried In Front of a Friend	Had a Deep Talk
	(1)	(2)	(3)
Treated	0.002 (0.035)	0.012 (0.048)	0.007 (0.058)
Observations	337	336	334
Control Mean of Dep. Var	0.10	0.15	0.34

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

*Notes:* Outcomes are a dummy variable indicating whether over the last 3 weeks the student: was involved in a physical fight, including e.g. slaps, kicks, and punches (Column 1); cried in front of a friend (Column 2); had a deep conversation with a friend about their personal life or insecurities (Column 3). All regressions include school fixed effects. Standard errors clustered at the school-classroom level.

Table B18: Discussion Group Has No Effects on Boys' Peer-Reported Behaviors

	Negative Behaviors			Positive Behaviors			
	Inappropriate Language	Violence	Negative Average	Non-Conflict Resolution	Sensitive	Respectful to Girls	Positive Average
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>Panel A: All Reporters</b>							
Treated	-0.039 (0.025)	0.029 (0.018)	-0.005 (0.018)	0.004 (0.019)	0.015 (0.016)	-0.032* (0.017)	-0.004 (0.012)
Observations	1,043	1,043	1,043	1,043	1,043	1,043	1,043
Control Mean Dep. Var	0.50	0.18	0.34	0.33	0.23	0.74	0.43
<b>Panel B: Control Reporters</b>							
Treated	0.005 (0.030)	0.026 (0.023)	0.016 (0.023)	-0.022 (0.024)	-0.034 (0.024)	-0.032 (0.022)	-0.030* (0.016)
Observations	574	574	574	574	574	574	574
Control Mean Dep. Var	0.54	0.19	0.37	0.32	0.26	0.74	0.44

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

*Notes:* Each outcome corresponds to the share (number of reported behaviors/number of times a student could have been reported) a student was reported on each behavior over the last 3 weeks: used inappropriate language to communicate to other students, such as cursing and profanity (Column 1); committed any form of physical aggression against another student, such as slaps, punches or kicks (Column 2); helped resolve a conflict in a non-violent way (Column 4); demonstrated to be a sensitive person (Column 5); was respectful towards girls (Column 6). Column 3 and Column 7 are, respectively, the average share across negative behaviors and positive behaviors. All regressions include school fixed effects. Standard errors clustered at the school-classroom level.

# **Online Appendix C: Supplementary Materials**

## **C.1 Consent Process**

I visited the 22 participating schools to discuss the study purposes, schedule the study day, obtain the list of students from participating classes, and hand the parental consent and assent forms to principals. I instructed principals to deliver the consent forms to students at least one week prior to the scheduled study day, and I sent reminders to guarantee this timeline they followed this time. I obtained parental consent in an opt-out way: parents had to sign the form to withhold consent. Otherwise, consent was assumed. The consent forms communicated to parents and students that this study aimed to understand how the societal expectations around boys' behaviors are formed.

## **C.2 Relation to AEA pre-registration**