Intergroup Contact, Empathy Education, and Refugee-Native Integration: Evidence from a Field Experiment in Lebanon

Salma Mousa[*] Lennard Naumann[†] Alexandra Scacco[§‡]

May 2, 2025

Abstract

Intergroup contact and empathy education are widely used strategies to foster trust, tolerance, and cooperation across group lines in deeply divided societies. We test these approaches directly against each other in the context of refugee-host relations in Lebanon, where Syrian refugees comprise a quarter of the population. Our study embeds a popular, existing family psycho-social support (FPSS) targeting vulnerable youth in a field experiment, where Syrian and Lebanese youth were randomly assigned to either mixed (Lebanese-Syrian) or homogeneous (Syrian or Lebanese) FPSS classrooms, and to an empathy education or placebo curicculum focused on health and nutrition. We find that intergroup contact had little effect on prejudice, and actually somewhat reduced study participant willingness to engage in future intergroup activities — an effect concentrated among Lebanese participants, and amplified when combining contact and empathy education. We find evidence consistent with dissonance, status threat, and negative experiences for dominant-group members. Empathy education, by contrast, modestly reduced prejudice and increased support for inclusive policies without leading to negative behavioral effects. We find no evidence of spillover to parents. These findings suggest that empathy education may more be more effective than intergroup contact in improving migrant-relations in conflict settings.

[*]University of California, Los Angeles smousa@ucla.edu

[†]WZB Berlin Social Science Center. lennard.naumann@wzb.eu

[‡]WZB Berlin Social Science Center and the University of Hamburg. alexandra.scacco@wzb.eu

[§]We thank Amel Association for partnership and implementation, and the Lebanese Ministry of Social Affairs for facilitating research access. We are grateful to Matthew Lowe, Macartan Humphreys, Ala Alrababah, seminar participants at the American Political Science Association and WZB. We thank Bassel Riche, Lama Ajrouche, and Marwa Fahs for excellent research management. We thank Innovations for Poverty Actions for generously funding this research. This research was approved by the Stanford University and Yale University IRB.

1 Introduction

In May 2023, the Lebanese Armed Forces began summarily deporting thousands of Syrian refugees (Amnesty International 2023). The deportations capitalized on a wave of anti-refugee rhetoric in Lebanon. In the preceding months, Lebanon's former President Michel Aoun stated that the presence of Syrian refugees represented a "conspiracy against Lebanon" by "European countries [that] want to integrate the Syrian refugees into the Lebanese society." Former Foreign Minister Gebran Bassil claimed that Syrians were only in Lebanon thanks to a "web of money and benefits," and security forces had to shut down demonstrations outside the UNHCR's Beirut offices protesting the presence of Syrian refugees in Lebanon (Arab News 2023). Xenophobic proclamations by elites have contributed to creating a "coercive environment" for Syrians according to human rights groups (Voice of America 2023). A nationally-representative survey conducted in Lebanon in 2013 found that 52% of Lebanese viewed Syrian refugees as a threat to national security, 82% believed that Syrians "take jobs from Lebanese," and 35% reported that Syrians benefit from "unfair" economic assistance (Christophersen et al. 2013). These beliefs reflect common misperceptions about the living conditions of Syrian refugees, 90% of whom were living in extreme poverty as of 2021 (UNHCR 2023). Linguistic, cultural, and (for the most part) religious commonalities have done little to mitigate Lebanese prejudice against Syrians in Lebanon, who have minimal access to employment opportunities, healthcare, and freedom of movement.

The case of Syrian refugees in Lebanon reveals not only persistent prejudice against a vulnerable minority, but also rising levels of affective and political polarization between refugee and host communities — polarization that increasingly threatens cooperation, trust, and everyday social interaction. Existing literature suggests that polarization can radically reshape social behavior by further hardening social boundaries between groups, heightening perceived threats from outgroups, and making cross-group cooperation more fragile (Boxell, Gentzkow and Shapiro 2024; Finkel et al. 2020; Kish Bar-On et al. 2024). As polarization increases, individuals are more likely to anticipate negative reactions from outgroup members

even when engaging in relatively neutral or uncontroversial intergroup interactions, discouraging future intergroup engagement and limiting opportunities for meaningful cooperation (Dimant and Kimbrough 2024; Panizza et al. 2024). Polarization thus contributes to a social trust trap: it limits the opportunities for meaningful intergroup contact, thereby eroding empathy for outgroup members, entrenching social segregation, and making conflict more likely — fuelling the cycle of distrust.

How can we build social cohesion — patterns of everyday trust, tolerance, and willingness to engage across group lines (Gilligan, Pasquale and Samii 2014) — in highly prejudiced and polarized environments? The causal evidence base points to two promising interventions: intergroup contact and empathy education. The 'contact hypothesis' stipulates that interpersonal contact across group lines, when structured under conditions of cooperation, equal status, and institutional support, can reduce prejudice and improve intergroup relations (Allport, Clark and Pettigrew 1954). Many OECD governments implicitly rely on the contact hypothesis in designing programs aimed at improving refugee-host relations, investing substantial resources into intergroup peacebuilding (Ditlmann and Samii 2016).[1]

Meta-analytic evidence suggests that contact typically reduces prejudice (Paluck et al. 2021; Lowe 2024), though effects vary substantially by context, and effect magnitudes shrink in fragile settings. Cooperative contact has been shown to improve intergroup relations in contexts are varied as Indian cricket leagues (Lowe 2021), South African dormitories (Corno, La Ferrara and Burns 2022), and American universities (Carrell, Hoekstra and West 2015), but has had mixed effects in post-conflict societies such as Iraq (Mousa 2020) and Nigeria (Scacco and Warren 2018). These mixed findings suggest that, in settings with the deepest social divisions, intergroup contact alone may be insufficient to improve relations, and may even trigger backlash if contact experiences are insufficiently positive.

Moreover, despite the volume of programming and existing research on contact,

[1]OECD governments invested a combined 390 million USD annually into citizen-targeted peace-building efforts between 2000 and 2013 (Ditlmann and Samii 2016).

existing evidence remains poorly equipped to answer basic questions about the effects of intergroup contact on migrant-host relations. Paluck et al.'s meta-analysis identifies only two high-quality experiments that involve newly mixed populations, and neither focuses on refugee interactions with members of host communities (2021). The evidence we do have seems contradictory at first glance: exposure to refugees dampened support for the far-right among Austrians (Steinmayr 2021) but increased it among Greeks (Hangartner et al. 2019). Both studies point to the importance of meaningful contact — sustained, positive interactions — as driving the results, supported by mostly observational evidence on meaningful immigrant-native contact found elsewhere in Europe (Finseraas and Kotsadam 2017; Andersson and Dehdari 2021; Homola and Tavits 2018; Clayton, Ferwerda and Horiuchi 2021) and Lebanon (Ghosn, Braithwaite and Chu 2019).

Whether refugee-host contact can build social cohesion thus remains an open question. This is particularly true in the Global South, where 8 out of 10 of the world's refugees reside (Christophersen 2023). Refugee-host relations in the Global South often differ from the European context in two important ways that limit our ability to extrapolate from Europe-based studies. First, refugees and hosts often share a common language and culture, potentially amplifying any positive effects of contact by making initial connections easier to form. Second, and reversing the direction of our expectations, economic anxieties tend to be more profound – potentially heightening fears about economic competition from newly arriving refugees, which may trigger xenophobia more readily (Lebow et al. 2024). Whether intergroup contact promotes cohesion or deepens prejudice and polarization between two culturally proximate groups thus remains an open question (Christophersen 2023; Lebow et al. 2024).

Empathy education offers a complementary pathway to building social cohesion by treating cognitive empathy, the ability to understand others' thoughts and emotions, as a trainable skill (Galinsky and Moskowitz 2000). A growing experimental literature finds that empathy interventions can improve attitudes toward refugees; reducing bullying and

improving academic outcomes in Turkey (Alan et al. 2021), and reducing prejudicial attitudes through brief perspective-taking in the U.S. (Adida, Lo and Platas 2018), Hungary (Simonovits, Kezdi and Kardos 2018), and Colombia (Bandiera et al. 2024). Empathy education stresses slow, deliberative processing of social information (Alan et al. 2021), complementing broader efforts to promote self-regulation and pro-social behavior in fragile settings (Heller et al. 2017; Blattman, Jamison and Sheridan 2017; Alan and Ertac 2018). In polarized environments, such interventions can discourage conflict escalation by promoting emotional regulation, encouraging constructive dialogue and perspective-taking to handle disagreements, and defusing retaliatory instincts and zero-sum thinking.

We hypothesize that combining intergroup contact and empathy education may more effectively foster social cohesion than either approach alone. While the contact hypothesis assumes that intergroup interactions will naturally breed empathy and cooperation, this may not be the case in highly polarized settings, where explicit training in empathy and conflict resolution skills may be necessary to activate the positive potential of contact. This is particularly true when intergroup relations are contentious, and interventions target youth with lower levels of emotion regulation. Combining the two approaches also mirrors real-world institutional practices where policymakers structure diverse classrooms or social spaces but often leave the management of interpersonal conflict to individuals (e.g., Billings, Chyn and Haggag (2021)).

To better understand the impacts of intergroup contact, empathy education, and the potential of combining both on refugee-host relations, we conduct a large-scale field experiment with *Amel Association International* (Amel) — a local NGO with a long history of providing mental health-oriented programming to vulnerable communities in Lebanon. Leveraging a well-established family psycho-social support program (FPSS), we randomize $n = 1{,}455$ participants (roughly 887 youth and 595 of their parents) into two treatment arms: (1) intergroup contact (heterogeneous vs. homogeneous psycho-social support sessions); and (2) empathy education (vs. a placebo nutrition on health and nutrition), over the course

of a 12-week program. This design allows us to estimate the individual and joint effects of contact and empathy education on outcomes like discrimination, policy preferences, conflict resolution skills, and willingness to engage in future intergroup activities.

In addition to cross-randomizing contact and empathy education, we make three empirical contributions. First, we measure real-world behaviors that capture social cohesion outside of the study setting several weeks after the conclusion of the intervention. Because most contact studies rely on self-reported attitudes measured within days of the treatment (Al Ramiah and Hewstone 2013), policymakers and scholars remain skeptical about the ability of contact to change everyday behaviors toward the outgroup (Paluck et al. 2021). These everyday behaviors represent the ultimate quantity of interest from a policymaking perspective — durable social cohesion (Mousa 2020).

Second, we measure spillover effects from FPSS participants to parents. Even if contact interventions are effective, they typically only reach a tiny fraction of the population (Enos 2017). To be considered worthwhile from a policy perspective, contact interventions must therefore activate spillover effects among household members through a process of social diffusion. Such a process can be driven by changing norms around the acceptability of intergroup contact, and making clear that positive contact experiences are possible (the so-called 'extended contact' hypothesis) in spite of negative experiences in the past (Zhou et al. 2019; Grady et al. 2023). We measure these spillover effects by enrolling participants' parents as research subjects, and inviting them to take baseline and endline surveys.

Finally, contact interventions are often criticized for instrumentalizing minority-group members to spur attitude change among the majority (Paluck and Clark 2020). We here view social cohesion as a two-way process whereby minority-group members must be willing to integrate, and majority-group members must be willing to accept these efforts. Our research design devotes equal attention to minority-group participants in three ways: Syrians make up over half the sample; we ask Syrian parents and youth questions about their psychological integration and mental health, and we design parallel behavioral outcomes that

reflect engagement with Syrian as well as Lebanese culture.

We find that empathy and contact interventions offer distinct trade-offs, with empathy education showing more promise overall. Among refugee and host youth in Lebanon, empathy education modestly improves outgroup prejudice and fosters inclusive policy preferences among Lebanese. While contact is more effective at enhancing self-reported conflict resolution skills, it fails to reduce prejudice and even decreases participants' willingness to attend outgroup social events. Moreover, combining the two approaches produced even more pronounced negative outcomes, driven by backlash effects among Lebanese participants. These findings suggest that, in polarized settings, empathy-based interventions may offer a safer and more effective path to improving intergroup attitudes, while contact may provoke resistance and entrench division — particularly when paired with normative messaging. The absence of spillovers to parents further underscores the limits of contact-based strategies for norm diffusion across generations, while further pointing to empathy education as a scalable and lighter-touch alternative.

2 Context: Lebanese-Syrian relations and the Amel Psycho-Social Support Program

Despite extensive cultural ties and a history of relatively free movement between the two neighboring countries, the history of Lebanese-Syrian relations is complex. Syrian forces invaded Lebanon at the outset of the Lebanese civil war in 1976, and maintained a presence in the country for 29 years, withdrawing in 2005 as a result of mounting international pressure following the assassination of Lebanese Prime Minister Rafic Hariri. The legacy of the Syrian occupation, which involved wide-ranging military and political interference in Lebanese affairs, as well as various forms of everyday repression of Lebanese citizens, defined Lebanese attitudes toward Syrians in later years. The outbreak of the Syrian revolution and subsequent civil war in 2011 did little to improve these ingrained Lebanese attitudes toward

Syrians.

Lebanon is home to the largest number of refugees per capita in the world (UNHCR Lebanon 2024). Hosting refugees at this scale requires a sophisticated policy response even in the most well-functioning of polities — a challenge made all the more complex in Lebanon, which has suffered from deepening political and economic crises in the wake of the Syrian refugee influx. Even before Lebanon's 2019 currency devaluation and hyperinflation crisis, Syrians had limited access to employment, housing, education, and healthcare, including being barred entirely from professions like law and medicine, and being forbidden from purchasing property. Further restrictions were imposed in 2023, when Syrian refugees were ordered to stay in their homes for two days during the Lebanese elections, and when the Lebanese Armed Forces deported over 13,000 of Syrians, many of whom were unaccompanied children (Human Rights Watch 2024). There is no path to permanent residency, citizenship, or regularization for most Syrian refugees. The strain of what the World Bank deemed one of the worst economic crises in the past 150 years has taken its toll on intergroup relations, with Syrians accused of benefiting from aid dollars inaccessible to Lebanese and scapegoated by politicians for Lebanons' various ills (World Bank 2021).

As Syrians began to arrive en masse in 2011, they were greeted by a small but vibrant network of domestic NGOs, who were already actively providing services to Lebanon's most vulnerable communities. Our research partner for this study, Amel Association International, was founded in 1979 as a secular, non-profit organization to provide medical, educational, and psycho-social services in the wake of the Israeli invasion and Lebanese civil war. Amel's initial programming focused on two communities, Chiyah and Ain el Remaneh, where different ethno-religious groups lived in close proximity but remained socially segregated. From its inception, Amels' mission has therefore been to provide critical services to local residents in need, and in doing so, bring together diverse groups which would otherwise lack opportunities for meaningful intergroup contact.

Amel continued to work toward this mission with the launch of its child protec-

tion unit in 1990. Its flagship program remains the Family Psycho-Social Support Program (FPSS), which has been running in one form or another since the 1980s. The latest iteration, developed by UNICEF and Balamand University, has graduated over 15,000 youth participants from 2011 to 2023. The program aims to build a safe environment for at-risk children and their families through prevention and response services, with a focus on improving mental health and well-being, and preventing and responding to violence, abuse, and exploitation. The program has historically been funded by UNICEF, alongside other international aid donors. Sessions are conducted outdoors and in groups of 8 - 15; the group-based structure of this program makes it an ideal candidate for our cluster-randomized experimental design.

Like all of Amel's current programming, the main beneficiaries are primarily Syrian refugees (65%), followed by Lebanese citizens (40%), and Palestinian refugees (5%). The program is designed to cater to children aged 12 to 17 years old, who are children at-risk of child labor, PTSD, domestic violence, and to a lesser extent, substance abuse. While Amel has 18 locations across Lebanon, this study focused on three centers, each in a different Governerate: Hay el Sellum (Mount Lebanon Governorate), Kamed el Loz (Bekaa Governorate), and Al Ain (Baalbeck-Hermel Governorate). Lebanese and Syrian communities being served by these Amel centers both suffer from poverty, unstable home lives and subsequent behavioral disorders, and frequent teacher strikes at local public schools. Syrian children suffer from added burdens because of their lack of permanent residency, discrimination from the host community, and higher poverty rates — which, in turn, increase child labor and school dropout rates. While Amel does not collect data on religious affiliation as a matter of principle, participants are drawn from communities that are primarily Muslim, although they differ in sect and national origin in some locations.[2] Amel is the main non-government provider of services in the three study sites, and does so without regard to national origin.

As with their parents, opportunities for meaningful intergroup contact among chil-

[2]Hey El Selloum residents are mainly Lebanese Shia and Syrian Sunnis, Kamed el Loz residents are largely Sunni Lebanese and Syrians, and Al Ain residents consist of a mixture of Sunni and Shia Lebanese, and Sunni Syrians.

dren are sparse. While schools are typically seen as an ideal environment for fostering positive intergroup contact (Billings, Chyn and Haggag 2021; Alan et al. 2021), Lebanese public schools are segregated by nationality: Lebanese children attend the morning shift, while Syrian children attend the afternoon shift. This policy decision allowed the Lebanese education system to expand its capacity and meet each community's curricular demands, but came at the cost of fostering positive intergroup interactions. As a result, over half of the youth participants (52%) reported that they did not have a single friend from the outgroup (Figure G2) — despite living their entire lives adjacent to each other. This context is ideal for a contact experiment in many ways: intergroup contact is physically possible but socially impeded, and prejudice is a large enough problem to solve that an intervention is warranted, but not so extreme such that fostering contact would be dangerous and unethical.

All program participants receive the standard 12-week FPSS program, delivered by Amel instructors trained in child psycho-social support. The sessions ran once a week, for two hours each session, including a short snack break. Core FPSS topics include: positive communication skills, expressing emotion, anger management, problem solving, friendship and peer-to-peer relationships, identity and community, hopes for the future, and child rights. The sessions themselves are highly structured and center around a close-knit group of 10-12 children, which remains the seem for the duration of the three months. Children commit to ground rules around respect and active listening, the sessions are closed-door Amel safe spaces, and facilitators frequently remind children to respect and validate each others' experiences. The activities themselves are designed to be interactive, with children prompted to provide feedback on each others' contributions, engage in role-playing activities, and work together on joint tasks to hit the sessions' key messages and objectives. Contact within the FPSS sessions is thus cooperative, egalitarian, and endorsed by respected authorities; three conditions thought to be critical for contact to reduce prejudice (Allport, Clark and Pettigrew 1954). The program is advertised to prospective participants through internal referrals at Amel, as well as through outreach at local public schools. During the study period, a mix

of Syrian and Lebanese facilitators ran the FPSS sessions two study locations, Al Ain and Kamed el Loz, while Lebanese facilitators ran those in the third, Hey el Selloum.

Working with a Lebanese child development scholar, we developed two supplementary curricula: an empathy-building curriculum, and a placebo cirriculum focused on physical health and nutrition. In addition to the main FPSS programming, study participants received either the empathy or health curriculum material for eight out of 12 total program sessions. The empathy sessions cover topics rooted in perspective-giving and perspective-taking. Topics include understanding others' feelings, active listening, and building friendships with diverse peers (see Table 1 for a summary of the curriculum). While the sessions cover topics such as developing and maintaining friendships with peers from different backgrounds, the Syrian-Lebanese social conflict was not explicitly discussed. This approach of developing empathy skills without increasing the salience of the refugee-native division is similar to that taken by Ala'Alrababah et al. (2020) in Jordan, and is roughly in line with other perspective-taking interventions, stressing shared experiences, to durably reduce prejudice among adults in the U.S. (Kalla and Broockman 2023).

The eight sessions of the placebo health curriculum focused on topics that should not in principle have any bearing on intergroup relations, such as the importance of leading an active lifestyle in a digital age, the dangers of substance abuse, and issues related to personal hygiene (see Table C1 for a summary). To promote standardization across classes, facilitators were given detailed lesson plans for each session that included the following components: objectives, life skills to be taught, key messages, preparation, facilitator notes, session flow, instructions for at least two activities, and notes for processing, generalization, and closing reflections.

Topic	Content
1. Self-esteem	Self-acceptance as is, self-awareness, goal setting
2. My Identity	Affirming identity and responsibility, resisting pressure, redefining self-position, self-management and self-control
3. Empathy	Understanding my emotions, understanding empathizing with others, emotional regulation
4. Active Listening	How to listen to others, bridging the gap between You and I, interpersonal communication
5. Community	Collaborating in my groups and communities, rights and responsibilities towards self and others, treating others with respect, cooperation, respect, and teamwork
6. Inclusive Friendships	Accepting and understanding others, respecting differing opinions, communication and relationship building
7. Interpersonal conflict	Responding to peer pressure and bullying, negotiating beyond win-lose scenarios, decision making and problem solving, negotiation, assertiveness, and refusal skills
8. Trust	Relying on oneself and others, building trust, self-control, and critical thinking

Table 1: Summary of weekly empathy education sessions

3 Empirical Strategy

We randomly assign individual participants to: (1) attend either heterogeneous or homogeneous FPSS classes; and (2) receive either the empathy curriculum, or the placebo curriculum focused on physical health and nutrition. We measure attitudes, self-reported behaviors, and real-world behaviors among direct FPSS program participants at least one of their parents, allowing us to detect child-to-parent spillover effects. Attitudes and self-reported behaviors are measured via a baseline and endline survey administered approximately two weeks before and two weeks after the implementation of the FPSS program. Behavioral outcomes are measured approximately three to four weeks after the FPSS program concludes.

3.1 Experimental protocol

The experimental protocol is as follows. First, program staff at Amel begin conducting outreach to potential program participants. This is done through advertisements at local public schools and in Amels' offices at the three participating study locations. The parents of interested participants are asked to fill in a registration form, as well as a baseline survey, which includes all of the variables needed to conduct the randomization described below. Program (youth) participants themselves are then asked to fill in a baseline survey as well. After all baseline surveys are complete, we inform participants and their parents of their group assignment. The program itself consists of a 12-week psycho-social support program delivered by Amel facilitators, with the final four weeks focused on empathy education or a placebo curriculum focused on health and nutrition (described in section 2). This research design was preregistered with Evidence in Governance and Politics (EGAP Registration Number 20230322AA), and received IRB approval at Stanford University (Protocol 50527).

To increase precision, and to handle constraints that arise from idiosyncratic features of the field setting, we conduct a randomization over two steps. First, children are randomly allocated to a study group conditional on three factors: (1) location (one of three study sites); (2) scheduling availability (Friday mornings, Friday evenings, other weekday mornings, other weekday evenings), and (3) having enrolled siblings, as most parents require siblings to attend the same sessions for practical purposes. Group sizes are randomly chosen among those that minimize the deviation from an optimal group size of 11 children per group. Half of the groups are assigned to be heterogeneous with regard to the participants' nationality, while the other half are assigned to be homogeneous (i.e. all-Syrian or all-Lebanese). Additionally, we verify that each group contains at least two boys and at least two girls, and that there are no obvious outliers based on age. This randomization procedure is a slight deviation from the simple block-randomization specified in the pre-analysis plan, which was made necessary by the constraints arising from the field context.

Amel, like most NGOs, typically allows participants to sign up for whichever program

session suits them best. This system is not ideal for optimizing for positive intergroup contact for two reasons. First, because Syrian and Lebanese children attend different school shifts, their schedules have little overlap — Lebanese children are free in the afternoons, while Syrian children are free in the mornings. Syrian children also have the added constraint of high child labor rates, which further affects scheduling availability. Second, selection bias poses a serious threat to intergroup contact — indeed, motivating the need for experimental tests of contact in the first place (Paluck et al. 2021). Interviews with Amel staff in the Child Protection Department reinforced concerns of selection bias, stressing that Lebanese and Syrian beneficiaries alike tended to avoid each other when signing up for programs, and conditional on being assigned to a mixed session, tended to avoid sitting near each other.[3]

We work with Amel to expand the range of time slots that the FPSS program is offered, find sufficient overlap in availability across the two communities, and randomize class assignments to eliminate the role of selection in or out of a certain class because of baseline prejudice. These design choices respected Amel's capacity constraints, and represented a large increase in the probability of their average youth beneficiary experiencing positive intergroup contact. When piloting study, we found that 42% of potential participants would have zero overlap with the outgroup given the old set of session times. Expending the range of session times and randomly allocating participants to one of them increased this number to nearly 100% — suggesting significant selection bias in the status quo registration process.

Two weeks after the psycho-social support program ends, participants and their parents are asked to return to Amels' office to fill in an endline survey. Two weeks after the endline survey is complete — roughly one month after the program ends —participants and their parents are invited to attend two events, which all serve as behavioral outcomes, described below. This process is repeated for four program cycles at each of the three locations, which ran through June 2022 to August 2023.[4]

[3]Author interviews with two child protection program officers, online, August 2021.

[4]Program cycle 1 took place from June to September 2022, cycle 2 from October to December 2022, cycle 3 from February to April 2023, and cycle 4 from June to Aug 2023.

4 Outcomes

We measure attitudes, self-reported behaviors, and real-world behaviors for all program participants and at least one parent per program participant. These outcomes were designed to capture intergroup attitudes, friendship formation, social norms, altruism, and anxiety with respect to the relevant outgroup (Syrians for Lebanese participants, and vice versa).

4.1 Attitudinal outcomes

Attitudinal outcomes are based on a list of 10 survey items drawn from both parent and youth surveys. Using baseline data from all four cycles, we run a hierarchical clustering model on these items to detect latent clusters of related variables. We do this twice — once for youth, and once for parents. We then run a factor analysis on these indexes and drop any index with a Cronbach's alpha below 0.7. This method of identifying outcome indexes is an entirely data-driven approach to identifying latent clusters in the data, and subsequently increasing statistical power through the use of indices, relative to manually selecting items to create an index. This method generates indices that we label *Social proximity*, *Conflict knowledge*, *Conflict skill*, and *Emotional skill* for youth (summarized in Table 2), and the indices *Social proximity*, *Market impartiality*, *Arbitrary divide*, and *Universalism* for parents (summarized in Table D1). Further detail on the indexing procedure can be found in Appendix section D.

Factor (Cronbach's α)	Variable	Item text
Social proximity (.74)	*common*	How much do you think you have in common with kids from Lebanon/Syria?
	frndly	In general, Lebanese people are friendly toward Syrians/Lebanese.
	frifri	My Syrian friends would be supportive if I became close friends with someone Lebanese/Syrian.
	closfri	I can imagine becoming close friends with someone Lebanese/Syrian.
	famfri	My family would be supportive if I became close friends with someone Lebanese/Syrian.
Conflict knowledge (-)	*conflict*	Conflict is something that should not happen/a normal part of life.
Conflict skill (-)	*stepin*	Let's say two of your friends got into an argument and they ask for your help resolving it. How comfortable would you feel about stepping in to help?
Emotional skill (-)	*frnsad*	When a friend is sad, I usually understand why.

Table 2: Outcome indices for youth.

4.2 Behavioral outcomes

We worked closely with Amel program staff to co-design behavioral outcomes that meaningfully capture social cohesion in the local context. Interviews with Amel staff guided by the prompt of "how would you know if Lebanese and Syrian in this community were no longer prejudiced toward each other?" led us to measure interest in the outgroups' culture. Our two key behavioral outcomes are RSVPing to, and actually attending, an event that celebrates the outgroups' culture (either Syrian or Lebanese). Amel regularly hosts cultural and social events for its clients, so their hosting of a Syrian and Lebanese *dabke* dance performance — which brought in professional dance troupes from third-party organizations — was not unusual from the perspective of research participants, and represents a locally-tailored, naturalistic measure of social cohesion.

These discrete behavioral outcomes (RSVP and attendance) come with several benefits: very low measurement error, no missing data, and minimal social desirability bias. This final advantage is particularly important when evaluating educational interventions in the

realm of intergroup relations, where participants may simply learn what the 'right' answer is without changing deep-held beliefs or behaviors, whereas attending the event indicates interest in, and respect for, the outgroups' culture. Conditional on attending the event, field documentation from research staff indicates that participants did not tend to self-segregate, with youth attendees in particular joining in the *dabke*. Invitations are sent to parents and children immediately after the program ends, and the events themselves take place three to four weeks after the end of each program cycle. The sequencing of the Syrian and Lebanese event was randomized across program cycles.

A third outcome is a quasi-behavior, embedded in the endline survey for both parents and children. We ask respondents if they would prefer the research staff to donate books on their behalf to disadvantaged Lebanese children, Syrian children, or both — with choosing the mixed beneficiary group (or the outgroup) coded as a positive response.[5]

5 Estimation

We estimate average treatment effects by regressing the outcomes on the treatment indicators (contact and empathy), their interaction, and a battery of covariates: program cycle, age, gender, nationality, education, whether the respondent is employed (asked of both parents and children), and the outcome question measured at baseline wherever possible to increase precision. In order to account for the randomization constraints in the field, we additionally control for participants' scheduling availability.[6] Instead of the standard OLS estimator specified in the pre-analysis plan, we employ the Lin estimator — a much more robust estimator given unequal assignment probabilities across groups; evident in our case because

[5] We here deviate from the pre-analysis plan in three minor ways. First, we add *Donation* — a survey question asking whether respondents preferred to donate to an ingroup cause, a neutral cause, or an outgroup cause — as a self-reported behavioral outcome. Second, we refrain from collapsing all behaviors into an index. We do this to ease the interpretation of effect sizes, and because RSVPing to, and actually attending, the outgroup cultural event are highly correlated. Finally, we drop the attending an arts and crafts workshop as an outcome, as the event in practice did not emphasize diversity in a way that would make it sufficiently meaningful for our study.

[6] This control takes the form of an availability dummy for each shift (Monday morning, Monday evening, Friday morning, Friday evening).

of different numbers of Syrian vs. Lebanese registrants (Lin 2013). We cluster standard errors at the classroom level; the same level at which randomization takes place (Abadie et al. 2023). In order to account for multiple comparisons, we apply the Benjamini-Hochberg (BH) correction at the $\alpha = 0.1$ level for the three behavioral outcomes (RSVP, Attendance, and Donation) and for the skill outcomes (Conflict knowledge, Conflict skill, and Emotional skill).[7]

We also analyze heterogeneous treatment effects based on the following four baseline variables for youth participants: nationality, gender, baseline contact (having no outgroup friends vs. having at least one), and household income. For parents, we analyze heterogeneous treatment effects based on nationality, gender, and baseline contact (never had a meal with the outgroup vs. had at least one meal with the outgroup).

In addition to our pre-registered outcomes, we run the following analyses: combining all behaviors and attitudes into a holistic outcome index, and adding mental health survey questions as outcomes. We also compare the effect of the contact treatment to the curriculum treatment by conducting a linear hypothesis test on whether the difference between the two effects is zero in the full model.

6 Data

We collect baseline and endline data for 887 youth participants (59% of whom are Syrian) distributed across 81 classrooms (clusters) and 595 parents (58% of whom are Syrian). Dropout rates, defined as a child attending fewer than 50% of all sessions, were low: 3.9% for youth and 2.0% for parent respondents (see section E for a detailed breakdown). Starting with youth, Table 3 summarizes the baseline survey data. The median youth participant was 12, with the sample ranging from 10 to 18 year olds. We record relatively high rates

[7]This is a deviation from the pre-analysis plan, which grouped all survey outcomes and all behavioral outcomes together. The current approach takes into account that clear clusters emerged from the survey data which should be treated as separate families of outcomes — notably, the social proximity index differs substantively in the concept being measured relative to the three other survey-based outcomes.

of poverty: 14% of youth participants reported that they had a job. In terms of intergroup relations, over half reported that none of their friends were from the outgroup, and a similar portion were convinced that they had "nothing" or only "some things" in common with the outgroup, despite the median respondent agreeing that the other group was generally friendly toward them.

Variable	N	Min	Max	Median	Mean	SD
Cycle	888	1	4	3	2.77	1.04
Age	888	10	18	12	12.59	1.57
Education level	887	0	3	1	1.40	0.65
Gender (1 = Female)	888	0	1	1	0.55	0.50
Nationality (1 = Syrian)	888	0	1	1	0.58	0.49
Work dummy	888	0	1	0	0.14	0.35
Outgroup friends	887	0	2	0	0.49	0.53
In common with outgroup	888	0	2	1	0.82	0.64
Outgroup friendly	888	0	3	2	1.63	0.73

Table 3: Youth Baseline Summary Statistics

Pivoting to parents, Table 4 presents descriptive statistics of their baseline survey data. The median parent respondent is 42 years old, married (87%), does not have a high school diploma (82.5%), has a household size of 6 and has one child participating in the FPSS program. Poverty is widespread, with 100% of all respondents reporting having gone without medicine or kerosene at least once in the last three months — and 53% having gone without both — and less than a third of respondents (28.3%) report being employed either full or part time. Unsurprisingly, mental health is poor, with the median respondent feeling "cheerful and in good spirits' less than once a month. Parents do seem to report more positive outgroup attitudes relative to their children, however: 86% report that they

share "some things" or "most things" in common with the outgroup; 18 percentage-points higher than their children (68%). Over two-thirds of parents report that they would feel comfortable if their son or daughter married an outgroup member, although tolerance is stronger among Syrian parents (80% agreement) than Lebanese ones (52%), a pattern seen across most questions on intergroup relations. Although nationally representative surveys of Lebanese on intergroup relations are scarce, our study participants — either by virtue of being surveyed a decade later, or because of their proximity to Syrian refugees — seem more tolerant than their compatriots surveyed in 2013 (Christophersen et al. 2013).

Roughly a quarter ($n = 260$) of youth participants were assigned to the pure control condition, meaning they were assigned to homogeneous classrooms and received the placebo health and nutrition curriculum. Of the remaining participants, 211 were assigned to the pure curriculum treatment (empathy-focused curriculum in homogeneous classrooms), 184 were assigned to the pure contact treatment (placebo curriculum in heterogeneous classrooms), and 233 were assigned the combined treatment (empathy curriculum in heterogeneous classrooms).[8]

To assess balance across treatment assignments, we run a linear model that regresses treatment status on demographic variables measured in the baseline survey. These coefficients are plotted in Figure F2. Approximately the same number of variables are significant at the 5 % level as what we would expect due to chance. Attendance rates also do not differ by treatment condition or by demographic groups: attendance for any given session hovered around 90% with no significant fluctuations based on treatment condition, program cycle, education, gender, nationality, or baseline prejudice (Figure E1).

[8] 106 participants had to be excluded from the analysis, as scheduling constraints did not allow for a randomization into different treatment conditions.

Variable	N	Min	Max	Median	Mean	SD
Cycle	570	1	4	3	2.78	1.01
High school degree	570	0	1	0	0.18	0.39
Age	570	26	66	42	41.88	6.78
Gender (1 = Female)	570	0	1	1	0.83	0.38
Married	570	0	1	1	0.88	0.33
Nationality (1 = Syrian)	570	0	1	1	0.58	0.49
HH size	567	2	8	6	6.06	1.45
Gone without medicine/kerosine	570	0	2	2	1.43	0.67
Felt cheerful	570	0	3	0	0.83	1.01
Comfortable with outgroup marriage	570	0	3	2	1.65	0.80
In common with outgroup	570	0	3	2	2.04	0.64
Outgroup conversation past month	570	0	4	2	1.78	1.48
Camp/informal settlement	570	0	1	0	0.49	0.50
Lebanese neighborhood	570	0	4	2	2.18	1.32
Outgroup neighborhood	570	0	4	1	1.45	1.22

Table 4: Parent Baseline Summary Statistics

7 Results

Starting with contact effects among youth participants, we find that being assigned to a mixed FPSS class had little effect on prejudicial attitudes, with null results for our social proximity index on average (Figure 1, circles in bottom panel). We do, however, find that intergroup contact modestly improves self-reported knowledge about and skills in resolving conflicts. This result is made more stark in a head-to-head test against the empathy treatment. We directly compare the effect of the two treatments with a linear hypothe-

sis test in the full model, leveraging all available power in our research design (Section K in the appendix). This analysis reveals that, compared to those assigned to homogeneous FPSS classrooms centered on empathy education, being assigned to mixed classrooms that received a placebo curriculum increases conflict resolution knowledge and skills by 20 - 22 percentage-points (see Figure 2).

Empathy education *was* more effective than contact at reducing prejudice, however. Relative to the placebo curriculum, empathy education improved the social proximity index by roughly 20 percentage-points (triangles in Figure 1), driven by increases in positive social norms (feeling that one's friends and family would be supportive of an outgroup friendship), and self-other overlap (feeling that one had many things in common with the out-group), both shown in Figure J2. Empathy education also significantly increased the probability that Lebanese youth reported that Syrian refugees should be allowed to stay in Lebanon in the future (last row of Figure 1).[9] In sum: when it comes to attitudes, contact is somewhat more effective at improving confidence in how to deal with conflict, while empathy education is more likely to reduce prejudice, as measured by social proximity on both sides and welcoming attitudes among natives.

Moving to behavioral outcomes (the top panel of Figure 1), we find that contact *reduces* the likelihood of attending an event celebrating the outgroups' culture by 5 -10 percentage-points. This result holds whether the comparison group consists of homogeneous classrooms with empathy education (the head-to-head test in Figure 2) or all homogeneous classrooms regardless of curriculum. The negative treatment effect of contact is driven entirely by Lebanese participants, who are less likely to RSVP and to attend such an event (Figure 1). The positive effects of contact on attitudes — and negative effects of contact on behaviors — are further observed when collapsing similar outcomes into indices (Figure 1).

[9]By design, this question was asked only of Lebanese participants.

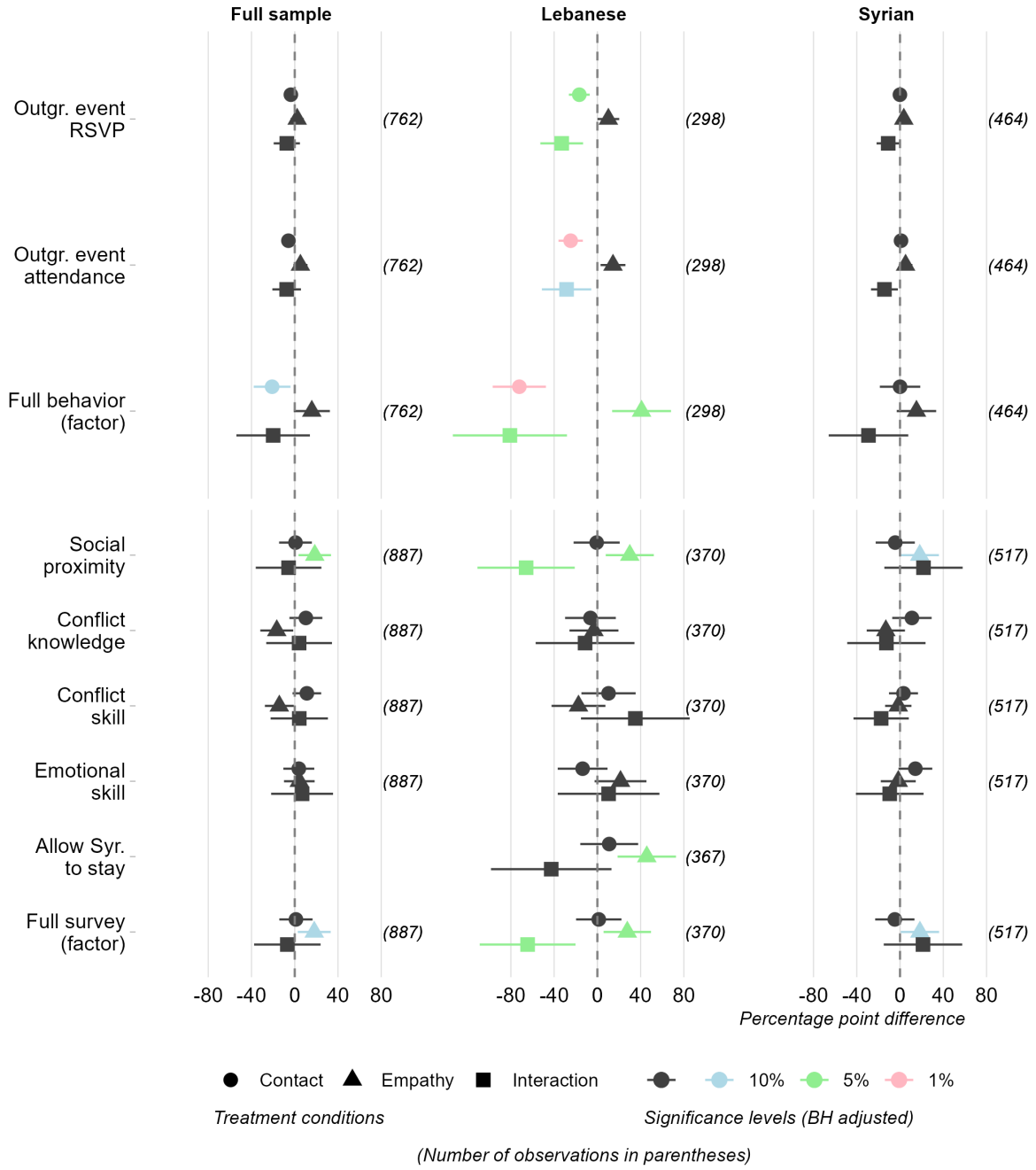

Figure 1: Effect of contact, empathy education, and their interaction for the full sample and differentiated by nationality

Circles, triangles, and squares represent point estimates of the average treatment effects of contact treatment (heterogeneous vs. homogeneous group assignment), empathy training treatment (peace-messaging curriculum vs. nutrition curriculum), and their interaction. Lines indicate 90 % confidence intervals.

What happens when we combine both treatments? Combining both contact and

empathy education yields null results across the board for Syrian youth, but appears to have caused even more pronounced negative effects among Lebanese youth compared to contact alone. Whether looking at prejudicial attitudes, like social proximity, or behavioral outcomes, such as RSVPing for or attending an outgroup-themed cultural event, Lebanese youth assigned to both contact *and* empathy conditions exhibit more negative effects than those assigned to contact alone (squares in Figure 1).

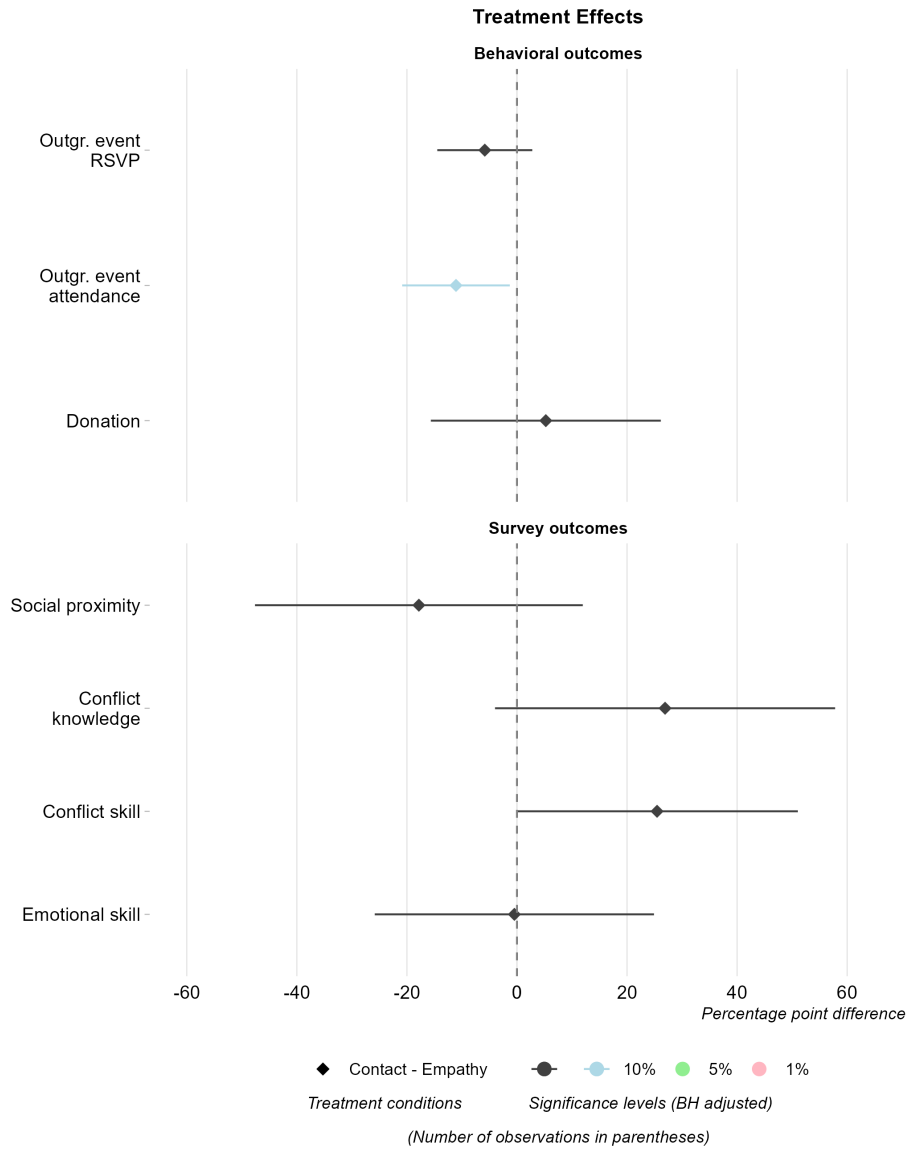

Figure 2: Difference between contact and empathy effects
Diamonds represent point estimates of the difference between contact and empathy treatment in the full model. Lines indicate 90% confidence intervals.

Moving to spillover effects among parents, we find largely null results. Starting with contact, having a child assigned to a mixed classroom has null effects on all behavioral and attitudinal outcomes, with positive but imprecisely estimated results on market impartiality (10 percentage-points improvement; Figure H1). Empathy education leads to a similar pattern, with parents of children assigned to empathy education experiencing null treatment effects (Figure H1). The combined contact and empathy treatment — relative to all other conditions pooled together — yields similar effects to those of contact alone; with positive effects on market impartiality (21 percentage-points) but null results on other outcomes.

Turning to heterogeneous treatment effects, we find that nationality (Lebanese or Syrian citizenship) shapes treatment effects in two notable ways. First, we find that the negative effects of contact on the probability of RSVPing or attending outgroup cultural events is driven by Lebanese participants (both youth and their parents), who are nearly 20 percentage-points less likely to attend an outgroup event relative to their Syrian peers assigned to the same mixed classrooms (Figures 1 and I7). In contrast, children of both nationalities responded in similarly positive ways to empathy education when it comes to social proximity (Figure 1). We also find suggestive evidence that parents whose children were assigned to mixed classrooms suffered a knock to their psychological integration: under the contact condition, Lebanese parents were 40 percentage-points less likely to feel connected to Lebanon, while Syrian parents were 20 percentage-points more likely to feel like an outsider (Figure H2). We find no other consistent patterns of heterogeneity by gender, baseline levels of outgroup exposure, or household income.

8 Discussion

As societies across the globe grapple with surging levels of displacement, deepening prejudice and polarization threaten to undermine the prospects for cohesion between newcomers and host communities. Intergroup contact and empathy-building education are at the forefront

of this work. We experimentally test these two approaches in Lebanon, where refugees and natives share a similar socio-economic status, language, religion, and culture, but where complicated history, populist rhetoric, and structural segregation sustains distrust and prejudice.

Our baseline data already illustrate how polarization manifests not only in attitudes but in behavioral selection: 42% of participants would have opted out of mixed-group activities if not for random assignment. This self-selection reflects anticipated discomfort as well as structural divides, with segregated schooling systems shaping daily routines and intergroup exposure. In addition to underscoring the importance of randomization, this practical insight also points to the importance of NGOs optimizing program design to mitigate endogenous sorting and encourage meaningful inter-group interactions. Within this context, we test two strategies that aim to recalibrate social dynamics and reduce intergroup conflict: direct contact and empathy-based education.

Embedding our research design into a psycho-social support program, we uncover a different set of trade-offs associated with intergroup contact and empathy education. On the one hand, contact within the program *reduced* demand for additional outgroup contact outside of it, and had no discernible effect on prejudicial attitudes. Yet contact was more effective than empathy education at improving the two outcomes traditionally tied to empathy education: knowledge of how to deal with interpersonal conflict, and confidence in one's skills to implement this knowledge. On the other hand, empathy education avoided the negative effects of contact on our key behavioral outcomes and also improved prejudicial attitudes, but appears to have been less effective at building core competencies around interpersonal conflict resolution and cooperation that it was designed for.

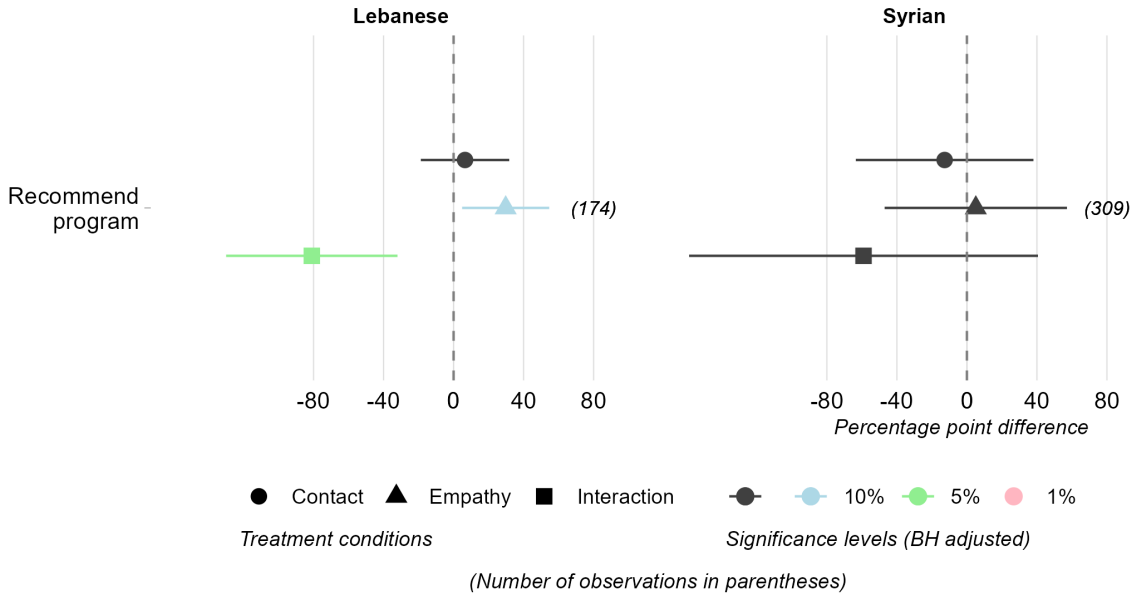

Figure 3: Effect of contact and empathy curriculum treatment on program recommendation *Circles and triangles represent point estimates of average treatment effects of contact treatment (heterogeneous vs. homogeneous group assignment) and empathy training treatment (peace-messaging curriculum vs. nutrition curriculum), differentiated by nationality. Squares represent interaction effect size. Lines indicate 90 % confidence intervals.*

Two interpretations are consistent with this counterintuitive result: it is possible that empathy education simply did not foster the skills it was designed to build, or that it *did* work, but also made those who received this training less confident in their self-reported knowledge and skills. We lean toward the latter possibility, speculating that this result may be driven increasing participants' awareness of the complexity and nuances involved in conflict resolution techniques. These seemingly adverse consequences of empathy education may reflect a healthy dose of introspection and humility when it comes to participants' own ability to deal with complex conflict situations. Studies of diversity, equity, and inclusion training similarly find small, short-term, and sometimes negative effects on self-reported knowledge, likewise finding that perceptions of skills and actual skills may point in opposite directions (Kulik and Roberson 2008; Bezrukova et al. 2012; Dobbin and Kalev 2018).

The positive empathy effects we do find range in size from 10 to 20 percentage-points on cultural event attendance and social proximity, to 70 percentage-points on pro-refugee

policy attitudes — effects that are orders of magnitude larger than those found in Alan et al. (2021)'s study of a perspective-taking intervention aimed improving attitudes toward Syrian refugees in Turkish schools. While we run the risk of over-estimating effect sizes because of sample size constraints (Gelman and Carlin 2014), we speculate that this difference in magnitude may be explained by the study's sample of highly vulnerable children. Our Lebanese children participants, while still part of the dominant social group in terms of their nationality, were socio-economically marginalized within Lebanese society more broadly. As such, prejudice may have been easier to overcome in this setting than in other host communities with a more pronounced socio-economic distinction between majority and minority group members.

Importantly, empathy education does not produce the negative effects that contact does on attendance at post-intervention social events celebrating the outgroup's culture. These negative effects of contact are driven by the dominant social group, Lebanese, and mirror negative results observed among majority groups in other intergroup interventions, such as Hindu participants in Indian youth camps (Nellis, Weinstein and Wilke 2024) and Jewish students in Israeli universities (Porat et al. 2024). The negative effect in our study may point to a saturation effect, or plausibly represent outgroup avoidance. Twelve weeks of intergroup contact in an intimate classroom setting may simply have satisfied participants' demand for such contact, thereby reducing voluntary interest in future interactions. Indeed, parents and children with the highest baseline levels of intergroup contact, the most "saturated," are also the least likely to attend outgroup events a month after the program ends (Figures I3).

The fact that contact exacerbates prejudice only among Lebanese, and unleashes even larger negative effects when combined with empathy education, points to a less optimistic interpretation, however. Studies of empathy interventions in polarized societies suggest that dominant-group participants may experience status threat or dissonance when asked to empathize with outgroup suffering, particularly when such appeals highlight group

wrongdoing (Gubler et al. 2016; Gubler, Halperin and Hirschberger 2015). These mechanisms may help explain why empathy education, when layered onto contact, generates backlash. Extensive research demonstrates the importance of power asymmetries in shaping the outcomes of intergroup contact (Saguy et al. 2009; Tropp and Pettigrew 2005). Complementary work shows that perceived status threat can drive up conservatism and racial resentment, helping explain why dominant groups feel threatened even when their material position remains secure (Cramer 2016; Craig and Richeson 2014). The dissonance explanation is consistent with our finding that contact lowers the likelihood of recommending the program to others, a marker of a positive experience, only among Lebanese (Figure 3). This body of work helps explain why some dominant-group members become less cooperative when exposed to contact experiences or educational content that challenges the social norms and prejudicial beliefs underpinning their worldview and sense of self-worth.

In contrast to contact, empathy education did not produce negative effects on behaviors, and in several cases, it improved them. This finding echoes those found in a study of perspective-taking interventions in another Global South context, Colombia, where refugees and hosts share a common cultural identity but where political entrepreneurs nonetheless stigmatize refugees (Bandiera et al. 2024). Results for parents follow the same general direction as those for youth participants albeit with much smaller effect sizes, suggesting that the children-to-parent channel for social norm diffusion is limited.

Our results contribute to a growing body of evidence on the trade-offs of contact- and empathy-based interventions in contentious settings (Lowe 2024). We conclude that while neither intervention is ready for wholesale adoption, empathy education holds more promise. Unlike contact, it avoids backlash effects among dominant groups and yields modest but meaningful reductions in prejudicial attitudes and exclusionary policy preferences. With further refinement to ensure that core competencies are internalized without undermining participant confidence, empathy emerges as the more effective (and scalable) approach for improving intergroup relations in polarized settings.

References

Abadie, Alberto, Susan Athey, Guido W Imbens and Jeffrey M Wooldridge. 2023. "When should you adjust standard errors for clustering?" *The Quarterly Journal of Economics* 138(1):1–35.

Adida, Claire L, Adeline Lo and Melina R Platas. 2018. "Perspective taking can promote short-term inclusionary behavior toward Syrian refugees." *Proceedings of the National Academy of Sciences* 115(38):9521–9526.

Al Ramiah, Ananthi and Miles Hewstone. 2013. "Intergroup contact as a tool for reducing, resolving, and preventing intergroup conflict: evidence, limitations, and potential." *American Psychologist* 68(7):527.

Alan, Sule, Ceren Baysan, Mert Gumren and Elif Kubilay. 2021. "Building social cohesion in ethnically mixed schools: An intervention on perspective taking." *The Quarterly Journal of Economics* 136(4):2147–2194.

Alan, Sule and Seda Ertac. 2018. "Fostering patience in the classroom: Results from randomized educational intervention." *Journal of Political Economy* 126(5):1865–1911.

Ala'Alrababah, Andrea Dillon, Jens Scott Williamson, Dominik Hangartner Hainmueller and Jeremy Weinstein. 2020. "Improving Attitudes Toward Refugees in Jordan.".

Allport, Gordon Willard, Kenneth Clark and Thomas Pettigrew. 1954. "The nature of prejudice.".

Amnesty International. 2023. "Lebanon: Halt Summary Deportations of Syrian Refugees.". Accessed: 2025-04-30.
URL: *https://www.amnesty.org/en/latest/news/2023/05/lebanon-halt-summary-deportations-of-syrian-refugees/*

Andersson, Henrik and Sirus H Dehdari. 2021. "Workplace contact and support for anti-immigration parties." *American Political Science Review* 115(4):1159–1174.

Arab News. 2023. "Lebanon Begins Deporting Syrian Refugees.". Accessed: 2025-04-30. **URL:** *https://www.arabnews.com/node/2295396/middle-east*

Bandiera, Antonella, Mateo Vásquez-Cortés, Stephanie Zonszein and Abraham Aldama. 2024. "Immigrant Narratives Promote Inclusionary Attitudes Toward Immigration in the Global South.".

Bezrukova, Katerina, Sherry Thatcher, Karen A Jehn and Chester S Spell. 2012. "The effects of alignments: Examining group faultlines, organizational cultures, and performance." *Journal of Applied Psychology* 97(1):77.

Billings, Stephen B, Eric Chyn and Kareem Haggag. 2021. "The long-run effects of school racial diversity on political identity." *American Economic Review: Insights* 3(3):267–284.

Blattman, Christopher, Julian C Jamison and Margaret Sheridan. 2017. "Reducing crime and violence: Experimental evidence from cognitive behavioral therapy in Liberia." *American Economic Review* 107(4):1165–1206.

Boxell, Levi, Matthew Gentzkow and Jesse M. Shapiro. 2024. "Cross-Country Trends in Affective Polarization." *The Review of Economics and Statistics* 106(2):557–565.

Carrell, Scott E, Mark Hoekstra and James E West. 2015. *The impact of intergroup contact on racial attitudes and revealed preferences.* Number w20940 National Bureau of Economic Research Cambridge, MA.

Christophersen, Eirik. 2023. "A few countries take responsibility for most of the world's refugees.".

Christophersen, Mona, Jing Liu, Cathrine Moe Thorleifsson and Age A Tiltnes. 2013.

"Lebanese attitudes towards syrian refugees and the Syrian crisis. Results from a national opinion poll." *Fafo Paper* 13.

Clayton, Katherine, Jeremy Ferwerda and Yusaku Horiuchi. 2021. "Exposure to immigration and admission preferences: Evidence from France." *Political Behavior* 43(1):175–200.

Corno, Lucia, Eliana La Ferrara and Justine Burns. 2022. "Interaction, stereotypes, and performance: Evidence from South Africa." *American Economic Review* 112(12):3848–3875.

Craig, Maureen A and Jennifer A Richeson. 2014. "Racial and political dynamics of an emerging racial group: How "multiracial" identity affects public opinion." *Political Psychology* 35(4):583–601.

Cramer, Katherine J. 2016. *The Politics of Resentment: Rural Consciousness in Wisconsin and the Rise of Scott Walker*. University of Chicago Press.

Dimant, Eugen and Erik O. Kimbrough. 2024. "Polarization in Multidisciplinary Perspective." *PNAS Nexus* 3(10):pgae425.

Ditlmann, Ruth K and Cyrus Samii. 2016. "Can intergroup contact affect ingroup dynamics? Insights from a field study with Jewish and Arab-Palestinian youth in Israel." *Peace and Conflict: Journal of Peace Psychology* 22(4):380.

Dobbin, Frank and Alexandra Kalev. 2018. "Why doesn't diversity training work? The challenge for industry and academia." *Anthropology Now* 10(2):48–55.

Enos, Ryan D. 2017. *The space between us: Social geography and politics*. Cambridge University Press.

Finkel, Eli J., Christopher A. Bail, Mina Cikara, Peter H. Ditto, Shanto Iyengar, Samara Klar, Lilliana Mason, Mary C. McGrath, Brendan Nyhan, David G. Rand, Linda J. Skitka,

Joshua A. Tucker, Jay J. Van Bavel, Cynthia S. Wang and James N. Druckman. 2020. "Political sectarianism in America." *Science* 370(6516):533–536.

Finseraas, Henning and Andreas Kotsadam. 2017. "Does personal contact with ethnic minorities affect anti-immigrant sentiments? Evidence from a field experiment." *European Journal of Political Research* 56(3):703–722.

Galinsky, Adam D and Gordon B Moskowitz. 2000. "Perspective-taking: decreasing stereotype expression, stereotype accessibility, and in-group favoritism." *Journal of personality and social psychology* 78(4):708.

Gelman, Andrew and John Carlin. 2014. "Beyond power calculations: Assessing type S (sign) and type M (magnitude) errors." *Perspectives on psychological science* 9(6):641–651.

Ghosn, Faten, Alex Braithwaite and Tiffany S Chu. 2019. "Violence, displacement, contact, and attitudes toward hosting refugees." *Journal of Peace Research* 56(1):118–133.

Gilligan, Michael J, Benjamin J Pasquale and Cyrus Samii. 2014. "Civil war and social cohesion: Lab-in-the-field evidence from Nepal." *American Journal of Political Science* 58(3):604–619.

Grady, Christopher, Rebecca Wolfe, Danjuma Dawop and Lisa Inks. 2023. "How contact can promote societal change amid conflict: An intergroup contact field experiment in Nigeria." *Proceedings of the National Academy of Sciences* 120(43):e2304882120.

Gubler, Joshua R, Christopher Karpowitz, Quin Monson, David Romney and Matthew South. 2016. "Erasing Empathy: How Dissonance Disrupts Attempts to Humanize Outgroups." Presented at the Annual Meeting of the American Political Science Association.

Gubler, Joshua R, Eran Halperin and Gilad Hirschberger. 2015. "Humanizing the outgroup in contexts of protracted intergroup conflict." *Journal of Experimental Political Science* 2(1):36–46.

Hangartner, Dominik, Elias Dinas, Moritz Marbach, Konstantinos Matakos and Dimitrios Xefteris. 2019. "Does exposure to the refugee crisis make natives more hostile?" *American political science review* 113(2):442–455.

Heller, Sara B, Anuj K Shah, Jonathan Guryan, Jens Ludwig, Sendhil Mullainathan and Harold A Pollack. 2017. "Thinking, fast and slow? Some field experiments to reduce crime and dropout in Chicago." *The Quarterly Journal of Economics* 132(1):1–54.

Homola, Jonathan and Margit Tavits. 2018. "Contact reduces immigration-related fears for leftist but not for rightist voters." *Comparative Political Studies* 51(13):1789–1820.

Human Rights Watch. 2024. "Lebanon: Stepped-Up Repression of Syrians.". Accessed: 2025-04-30.
URL: *https://www.hrw.org/news/2024/04/25/lebanon-stepped-repression-syrians*

Kalla, Joshua L and David E Broockman. 2023. "Which narrative strategies durably reduce prejudice? Evidence from field and survey experiments supporting the efficacy of perspective-getting." *American Journal of Political Science* 67(1):185–204.

Kish Bar-On, Kati, Eugen Dimant, Yphtach Lelkes and David G. Rand. 2024. "Unraveling Polarization: Insights into Individual and Collective Dynamics." *PNAS Nexus* 3(10):pgae426.

Kulik, Carol T and Loriann Roberson. 2008. *Diversity initiative effectiveness: What organizations can (and cannot) expect from diversity recruitment, diversity training, and formal mentoring programs.* Cambridge University Press.

Lebow, Jeremy, Jonathan Moreno-Medina, Salma Mousa and Horacio Coral. 2024. "Migrant exposure and anti-migrant sentiment: The case of the Venezuelan exodus." *Journal of Public Economics* 236:105169.

Lin, Winston. 2013. "Agnostic notes on regression adjustments to experimental data: Re-examining Freedman's critique." *The Annals of Applied Statistics* 7(1):1–25.

Lowe, Matt. 2021. "Types of contact: A field experiment on collaborative and adversarial caste integration." *American Economic Review* 111(6):1807–1844.

Lowe, Matt. 2024. "Has intergroup contact delivered?" *Annual Review of Economics* 17.

Mousa, Salma. 2020. "Building social cohesion between Christians and Muslims through soccer in post-ISIS Iraq." *Science* 369(6505):866–870.

Nellis, Gareth, Jeremy Weinstein and Robert Wilke. 2024. "Building Social Cohesion in Divided Societies: Evidence from Youth Camps in India." *American Political Science Review* .

Paluck, Elizabeth Levy and Chelsey S Clark. 2020. "Can playing together help us live together?" *Science* 369(6505):769–770.

Paluck, Elizabeth Levy, Roni Porat, Chelsey S Clark and Donald P Green. 2021. "Prejudice reduction: Progress and challenges." *Annual review of psychology* 72(1):533–560.

Panizza, Folco, Eugen Dimant, Erik O. Kimbrough and Alexander Vostroknutov. 2024. "Measuring Norm Pluralism and Perceived Polarization in US Politics." *PNAS Nexus* 3(10):pgae413.

Porat, Roni, Sarit Larry, John-Henry Pezzuto, Miriam Poupko and Devorah Manekin. 2024. "The Costs of Collaboration: Evidence From Two Field Experiments in Jerusalem." *Working paper* .

Saguy, Tamar, Nicole Tausch, John F Dovidio and Felicia Pratto. 2009. "The irony of harmony: Intergroup contact can produce false expectations for equality." *Psychological Science* 20(1):114–121.

Scacco, Alexandra and Shana S Warren. 2018. "Can social contact reduce prejudice and discrimination? Evidence from a field experiment in Nigeria." *American Political Science Review* 112(3):654–677.

Simonovits, Gábor, Gabor Kezdi and Peter Kardos. 2018. "Seeing the world through the other's eye: An online intervention reducing ethnic prejudice." *American Political Science Review* 112(1):186–193.

Steinmayr, Andreas. 2021. "Contact versus exposure: Refugee presence and voting for the far right." *Review of Economics and Statistics* 103(2):310–327.

Tropp, Linda R and Thomas F Pettigrew. 2005. "The differential impact of intergroup contact across social status boundaries." *Journal of Social Issues* 61(3):535–553.

UNHCR. 2023. "Lebanon Operational Update: March 2023.". Accessed: 2025-04-30.
URL: *https://data.unhcr.org/en/documents/details/90589*

UNHCR Lebanon. 2024. "Lebanon at a Glance.". Accessed: 2025-04-30.
URL: *https://www.unhcr.org/lb/at-a-glance*

Voice of America. 2023. "Anti-Refugee Rhetoric, Forced Deportations of Syrians Increase in Lebanon.". Accessed: 2025-04-30.
URL: *https://www.voanews.com/a/anti-refugee-rhetoric-forced-deportations-of-syrians-increase-in-lebanon-/7117392.html*

World Bank. 2021. "Lebanon Sinking (to the Top 3).". Accessed May 2, 2025.
URL: *https://www.worldbank.org/en/country/lebanon/publication/lebanon-economic-monitor-spring-2021-lebanon-sinking-to-the-top-3*

Zhou, Shelly, Elizabeth Page-Gould, Arthur Aron, Anne Moyer and Miles Hewstone. 2019. "The extended contact hypothesis: A meta-analysis on 20 years of research." *Personality and Social Psychology Review* 23(2):132–160.

Supporting Information

Table of Contents

A Overview of outcomes

	Name	Description	Youth		Parents	
			Leb.	Syr.	Leb.	Syr.
Behavioral outcomes	Outgroup event RSVP	Family RSVPing to cultural outgroup event	✓	✓	✓	✓
	Outgroup event RSVP	Family attendance at cultural outgroup event	✓	✓	✓	✓
	Donation	Donating books to ingroup, outgroup or both	✓	✓	✓	✓
	Full factor	First principal component of outgroup event attendance and RSVPing	✓	✓	✓	✓
	Arts & Crafts	———"——— for Arts & Crafts event	✓	✓	✓	✓
	Syrian culture /	———"——— for Syrian culture event	✓	✓	✓	✓
	Lebanese culture	———"——— for Lebanese culture event	✓	✓	✓	✓
Attitudinal outcomes	Social proximity	Multi-item outcome index, see Tables 2 and D1	✓	✓	✓	✓
	Conflict knowledge	———-"———-	✓	✓		
	Conflict skill	———-"———-	✓	✓		
	Emotional skill	———-"———-	✓	✓		
	Market impartiality	———-"———-			✓	✓
	Arbitrary divide	———-"———-			✓	✓
	Universalism	———-"———-			✓	✓
	Full factor	First principal component of all survey items	✓	✓	✓	✓
	Connected to Lebanon	How (....) do you feel? (0-4)				✓
	Feel like outsider	How often do you (...) in Lebanon? (0-3)				✓
	Live in future	Do you want to (..) in Lebanon? (04)				✓
	Mental health	First principal component of three items on symptoms of rumination, sadness, and feelings of helplessness (0-4)			✓	✓
	Allow Syr. to stay	How much do you think one should (...) (0-4)	✓			

Table A1: Overview of all investigated outcomes

B Overview of models

Outcome	Population	Youth fig. ref.	Parents fig. ref.
Outgroup event RSVP	Full sample:	1	H1
Outgroup event attendance	*Contact vs. empathy:	2*	
Donation	By gender:	I1	I8
	By baseline openness:	I2	
	By nationality:	??	I7
	By baseline contact:	I3	I9
	*By HH income:	I4*	I10*
	*With and without sibling:	I5*	
	*"Pure" comparison	??*	
Social proximity	Full sample:	1	H1
Conflict knowledge / conflict	Full sample:	1; J2	
Conflict skill /stepin	*Contact vs. empathy:	2*	
Emotional skill /frnsad	By gender:	I1	
	By baseline openness:	I2	
	By nationality:	??	
	By baseline contact:	I3	
	*By HH income:	I4*	
	*With and without sibling:	I5*	
	*"Pure" comparison	??*	
Market impartiality	Full sample:		H1
Arbitrary divide	By nationality:		I7
Universalism	By gender:		I8
	By baseline contact:		I9
	*By HH income:		I10*
Full factors	*Full sample:	1*	J3*
Connected to Lebanon	*Syrian parents:		H2*
Feel like outsider			
Live in future			
Mental health	*By nationality:	J1*	J4*
Allow Syr. to stay	*Only Lebanese:	??*	
Arts & Crafts/Syrian/Lebanese event	*By nationality:	I6*	
common	*Full sample:	J2*	
frndly			
frifri			
closfri			
famfri			

Table B1: Overview of all statistical comparisons (* = not pre-registered)

C Health curriculum

Topic	Content
1. My health, my responsibility	Understanding the components of physical health, self-awareness and goal setting, critical thinking.
2. Growing the Right Way	Understanding the importance of proper nutrition, regular sleep, and rest.
3. Spending My Days Actively	Understanding the importance of exercise and physical effort, decision-making.
4. Avoiding Unhealthy Habits	Avoiding smoking, alcohol, and drugs, understanding their risks and how to avoid them.
5. Health in the Digital Age	Awareness of health challenges that may result from improper use of technology (posture, eyesight, obesity, etc.).
6. Puberty	Understanding physical, emotional, and social changes that come with adolescence, enhancing self-control.
7. Taking care of my body as a teen	Awareness of how to maintain personal hygiene and sexual health.
8. Rejecting violence and harm	Understanding the causes, components, and effects of violence.

Table C1: Summary of weekly health and nutrition education sessions

D Indexing results

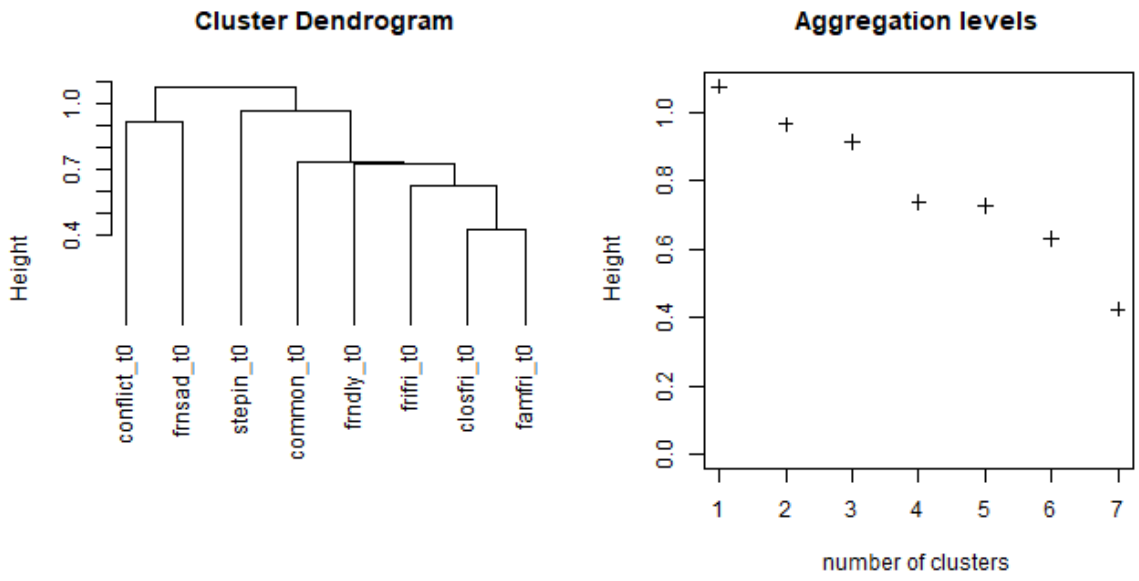

Figure D1: Cluster dendogram and scree plot for youth

??

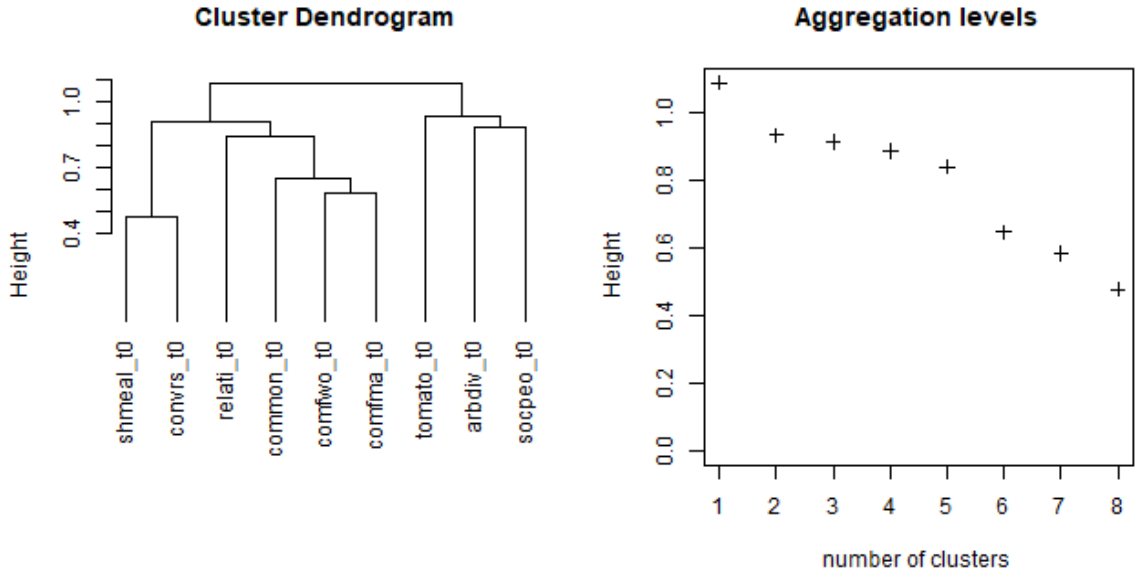

Figure D2: Cluster dendogram and scree plot for parents

Factor (Cronbach's α)	Variable	Item text
Social proximity (.69)	*shmeal*	In the last 12 months, how often did you have a meal with Lebanese/Syrians who are not part of your family?
	convrs	Think about the Lebanese/Syrians in your address book or your phone contacts. With how many of them did you have a conversation - either by phone, messenger chat, or text exchange - in the last 4 weeks?
	relati	How do you perceive relations between Lebanese and Syrian refugees?
	common	I share a lot in common with Lebanese/Syrians.
	comfwo	I would feel comfortable working with a Lebanese/Syrian.
	comfma	I would feel comfortable if my son or daughter married a Lebanese/Syrian one day.
Market impartiality (-)	*tomato*	Suppose you are buying a pack of tomatoes from the market. There are two stores right next to each other, one run by [an outgroup member] and one by an [ingroup member]. The tomatoes seem to be of the same quality, but the tomatoes at the [ingroup] store are more expensive. At what point would you buy from the [outgroup] store instead? (Always [ingroup]; 50% cheaper; 25% cheaper; always cheapest)
Arbitrary divide (-)	*arbdiv*	It is arbitrary to divide Lebanon into ethnic and religious communities.
Universalism (-)	*socpeo*	Lebanon would be a better society if we treated each other as people first, instead of ethnic and religious communities.

Table D1: Outcome indices for parents.

E Attendance and attrition

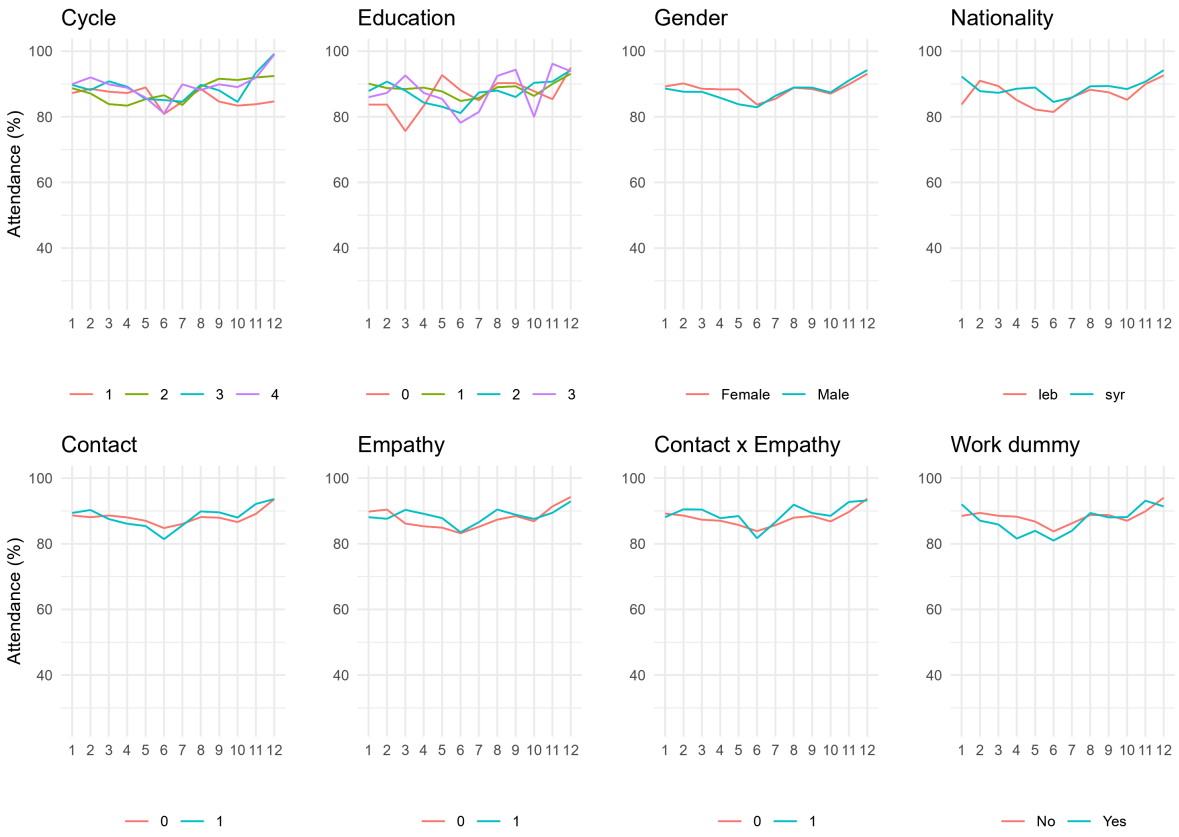

Figure E1: Attendance of the program for different subgroups

Nationality	Baseline	Endline	Attended over 50 %
Lebanese	411	394	383
Syrian	664	647	615
Sum	1075	1041	998

Table E1: Attrition for youth

Nationality	Baseline	Endline
Lebanese	408	400
Syrian	640	635
Sum	1048	1035

Table E2: Attrition for parents

F Balance

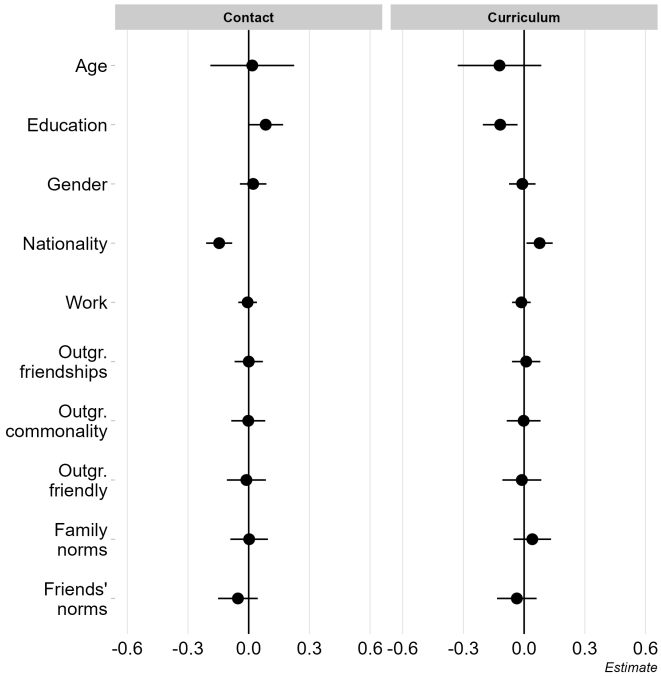

Figure F1: Balance plot for youth, with 95% confidence intervals

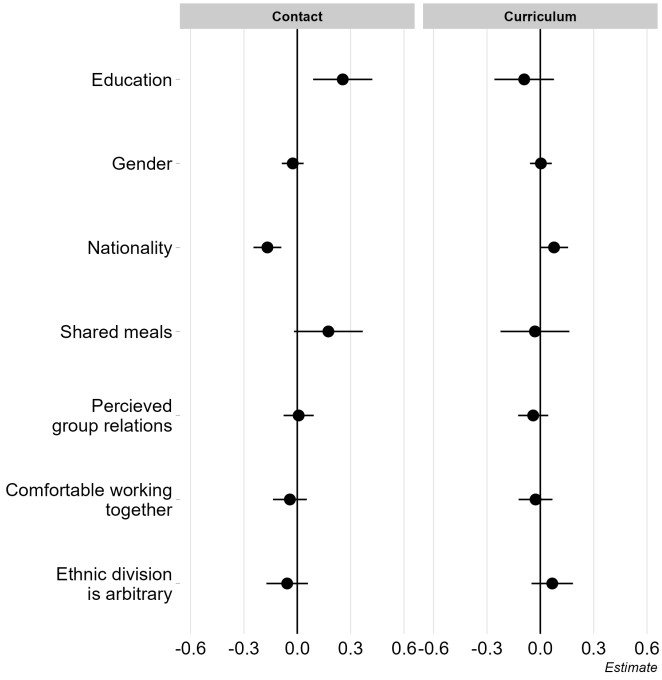

Figure F2: Balance plot for parents, with 95% confidence intervals

G Descriptives

G.1 Descriptives, youth

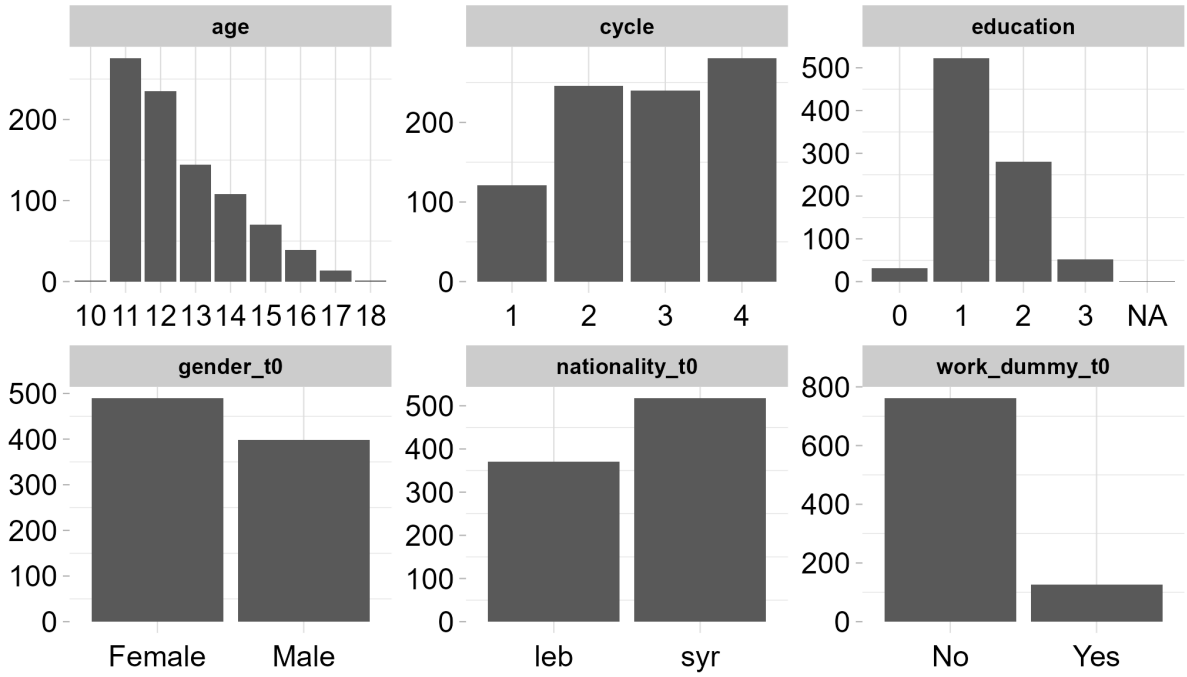

Figure G1: Barplot of youth covariates

Table G1: Means and standard deviations (in parantheses) for all treatment conditions and outcomes

Treatment condition	Outcome	Baseline	Endline
All	Conflict knowledge	0.38 (0.49)	0.46 (0.5)
All	Conflict skill	1.65 (0.63)	1.79 (0.51)
All	Donation	NA	0.92 (0.32)
All	Emotional skill	0.81 (0.39)	0.9 (0.31)
All	Outgr. event attendance	NA	0.77 (0.42)
All	Outgr. event RSVP	NA	0.82 (0.39)
All	Social proximity	1.69 (0.51)	1.95 (0.45)
Contact	Conflict knowledge	0.39 (0.49)	0.53 (0.5)
Contact	Conflict skill	1.6 (0.65)	1.8 (0.51)
Contact	Donation	NA	0.91 (0.32)
Contact	Emotional skill	0.8 (0.4)	0.88 (0.33)
Contact	Outgr. event attendance	NA	0.72 (0.45)
Contact	Outgr. event RSVP	NA	0.79 (0.41)
Contact	Social proximity	1.72 (0.49)	1.95 (0.43)
Contact x Curric	Conflict knowledge	0.4 (0.49)	0.45 (0.5)
Contact x Curric	Conflict skill	1.63 (0.63)	1.77 (0.5)
Contact x Curric	Donation	NA	0.92 (0.3)
Contact x Curric	Emotional skill	0.75 (0.43)	0.9 (0.3)
Contact x Curric	Outgr. event attendance	NA	0.75 (0.43)
Contact x Curric	Outgr. event RSVP	NA	0.79 (0.41)
Contact x Curric	Social proximity	1.64 (0.55)	1.97 (0.48)
Control	Conflict knowledge	0.4 (0.49)	0.48 (0.5)
Control	Conflict skill	1.7 (0.58)	1.82 (0.49)
Control	Donation	NA	0.9 (0.37)
Control	Emotional skill	0.87 (0.34)	0.91 (0.28)
Control	Outgr. event attendance	NA	0.76 (0.43)
Control	Outgr. event RSVP	NA	0.81 (0.39)
Control	Social proximity	1.67 (0.49)	1.9 (0.43)
Curric	Conflict knowledge	0.33 (0.47)	0.39 (0.49)
Curric	Conflict skill	1.65 (0.67)	1.76 (0.55)
Curric	Donation	NA	0.94 (0.28)
Curric	Emotional skill	0.82 (0.38)	0.89 (0.32)
Curric	Outgr. event attendance	NA	0.87 (0.34)
Curric	Outgr. event RSVP	NA	0.89 (0.32)
Curric	Social proximity	1.73 (0.52)	2 (0.45)

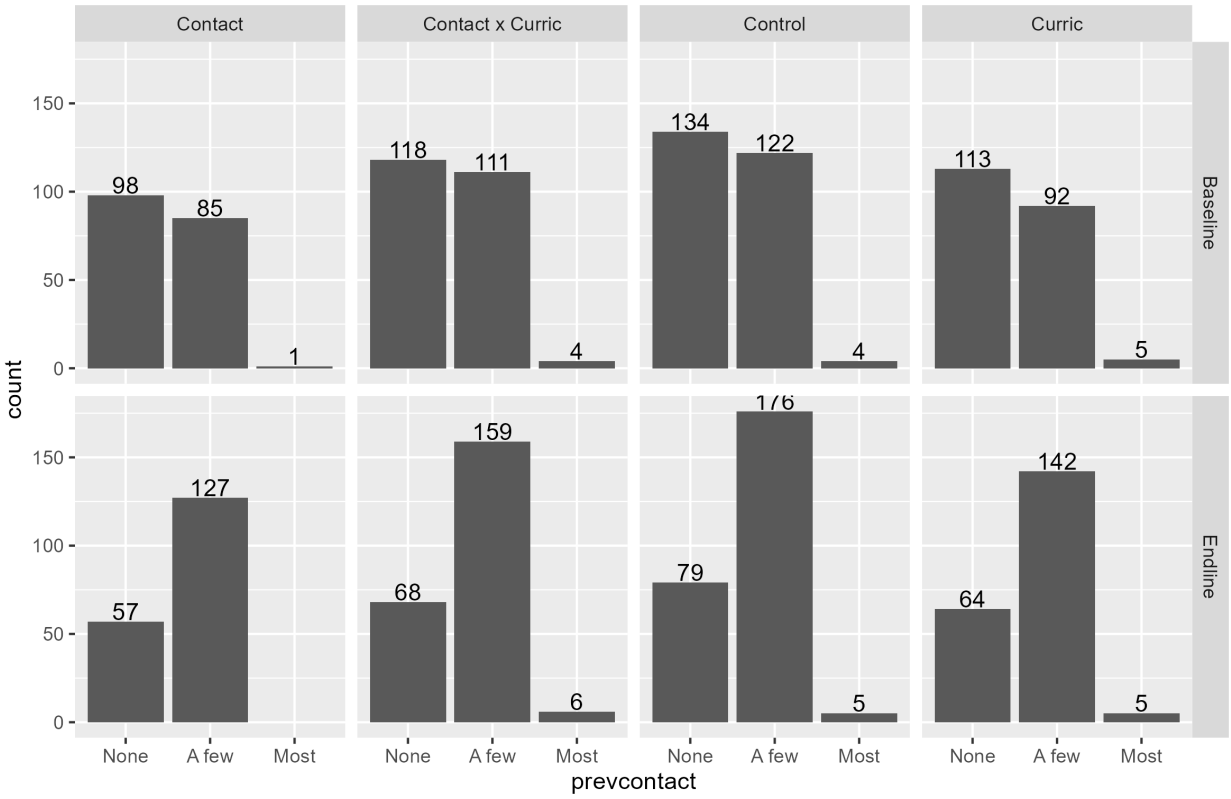

Figure G2: Number of outgroup friends at baseline among youths

G.2 Descriptives, parents

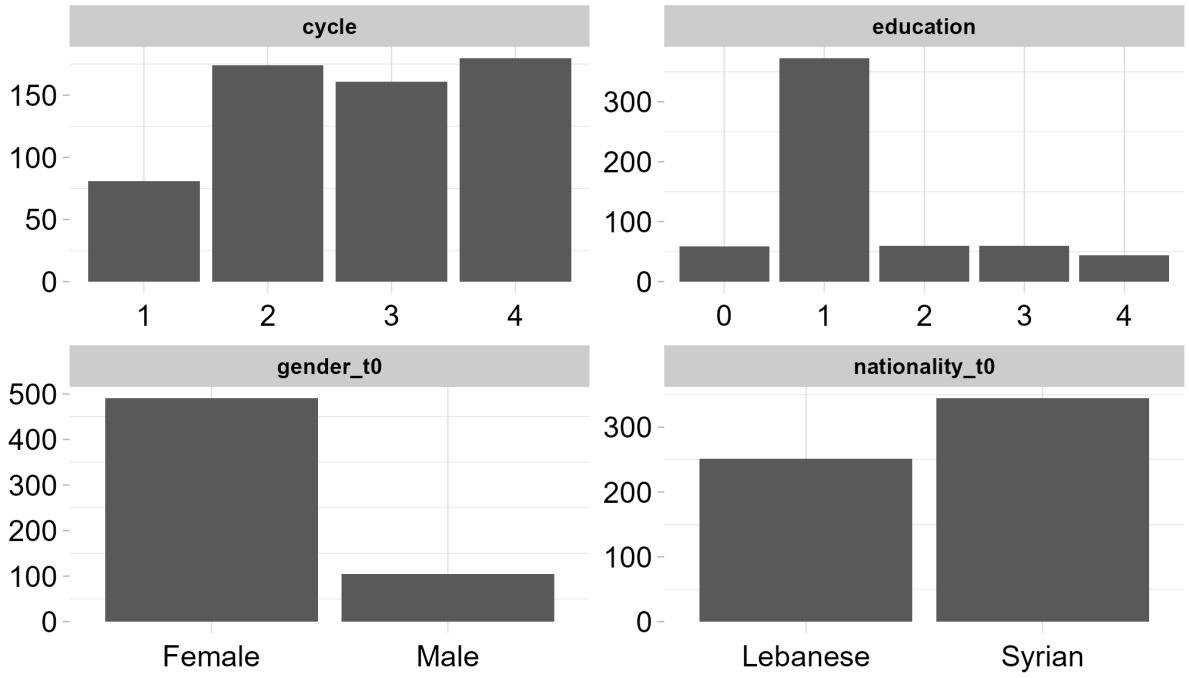

Figure G3: Barplot of parent covariates

H Spillover effects on parents

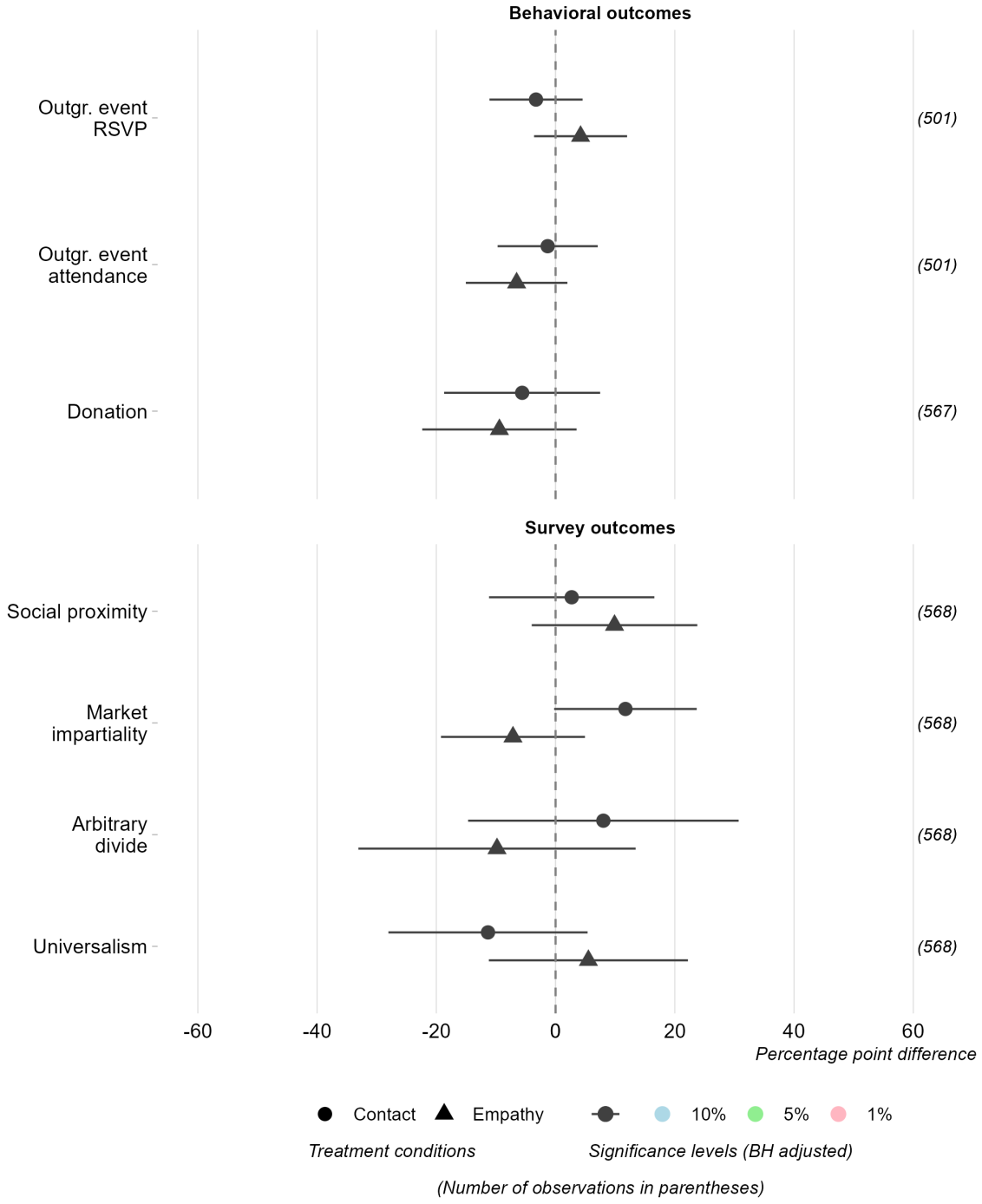

Figure H1: Spillover effects of contact and empathy education on parent outcomes
Circles and triangles represent point estimates of parents' average treatment effects of contact treatment (child assigned to heterogeneous vs. homogeneous group assignment) and empathy training treatment (peace-messaging curriculum vs. nutrition curriculum). Lines indicate 90 % confidence intervals.

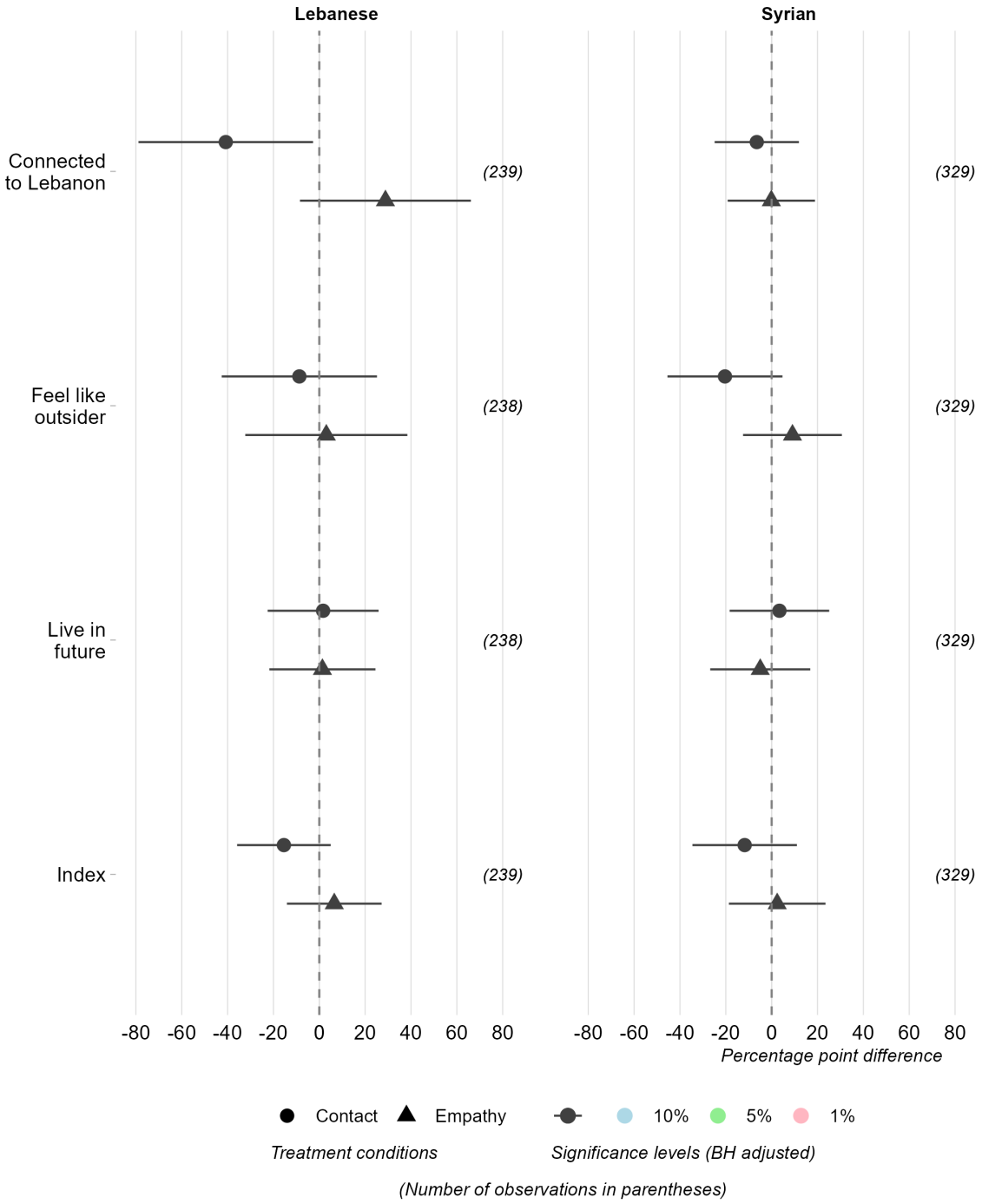

Figure H2: Spillover effect of contact and empathy curriculum treatment on psychological integration for Syrian parents

Circles and triangles represent point estimates of parents' average treatment effects of contact treatment (child assigned to heterogeneous vs. homogeneous group assignment) and empathy training treatment (peace-messaging curriculum vs. nutrition curriculum), differentiated by family nationality. Squares represent interaction effect size. Lines indicate 90 % confidence intervals.

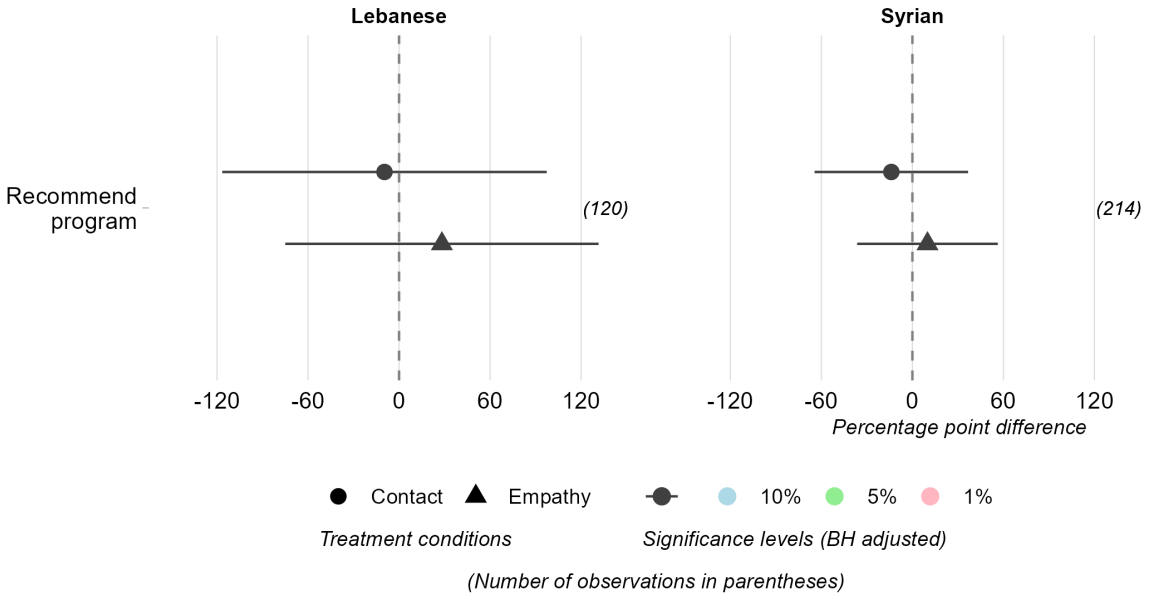

Figure H3: Spillover effect of contact and empathy curriculum treatment on program recommendation

Circles and triangles represent point estimates of parents' average treatment effects of contact treatment (child assigned to heterogeneous vs. homogeneous group assignment) and empathy training treatment (peace-messaging curriculum vs. nutrition curriculum), differentiated by family nationality. Squares represent interaction effect size. Lines indicate 90 % confidence intervals.

I Heterogeneous effects

Heterogeneous effects by gender:

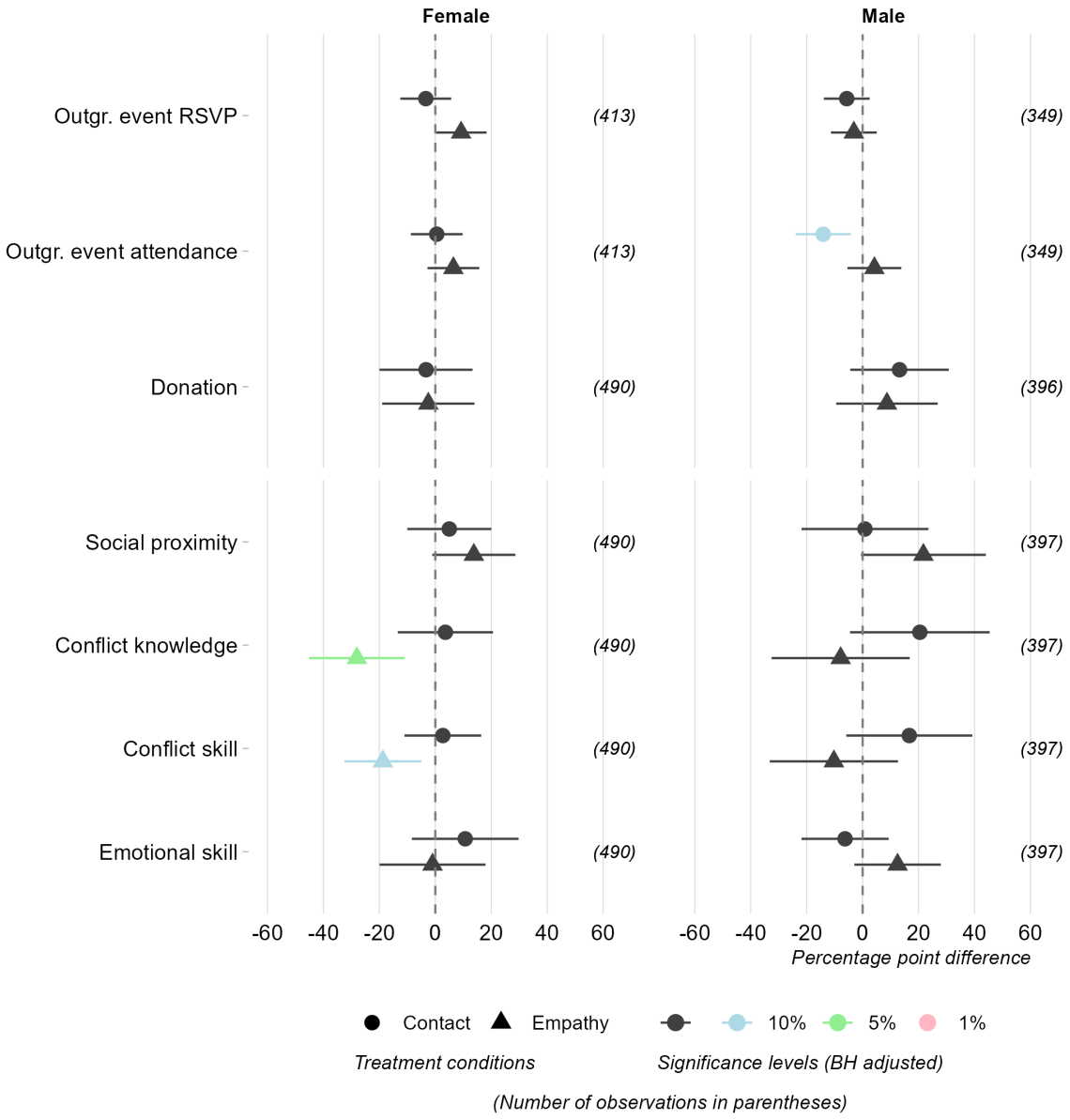

Figure I1: Youth results by gender

Heterogeneous effects by openness to new experiences:

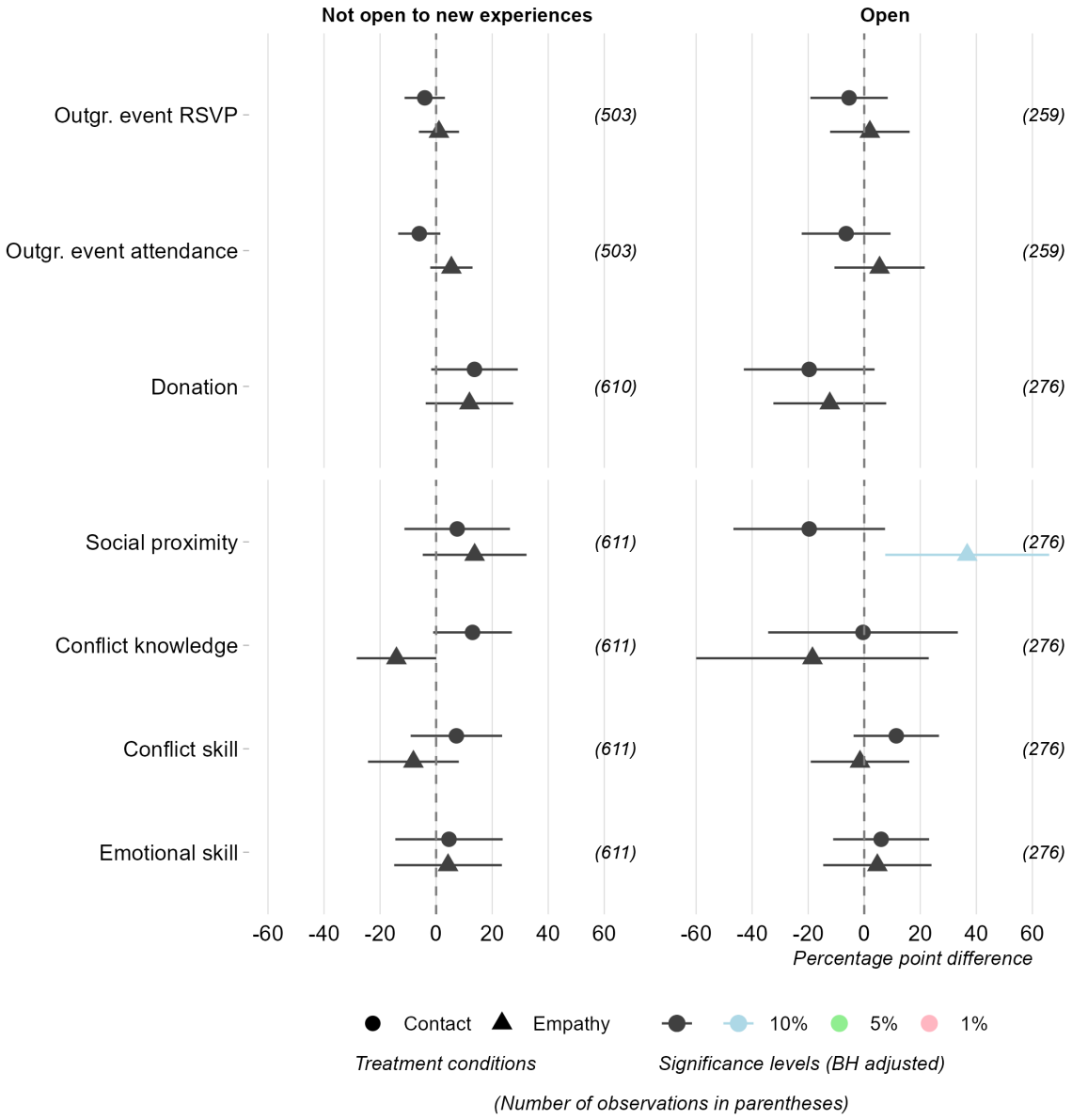

Figure I2: Youth results by openness to new experiences

Heterogeneous effects by baseline contact levels:

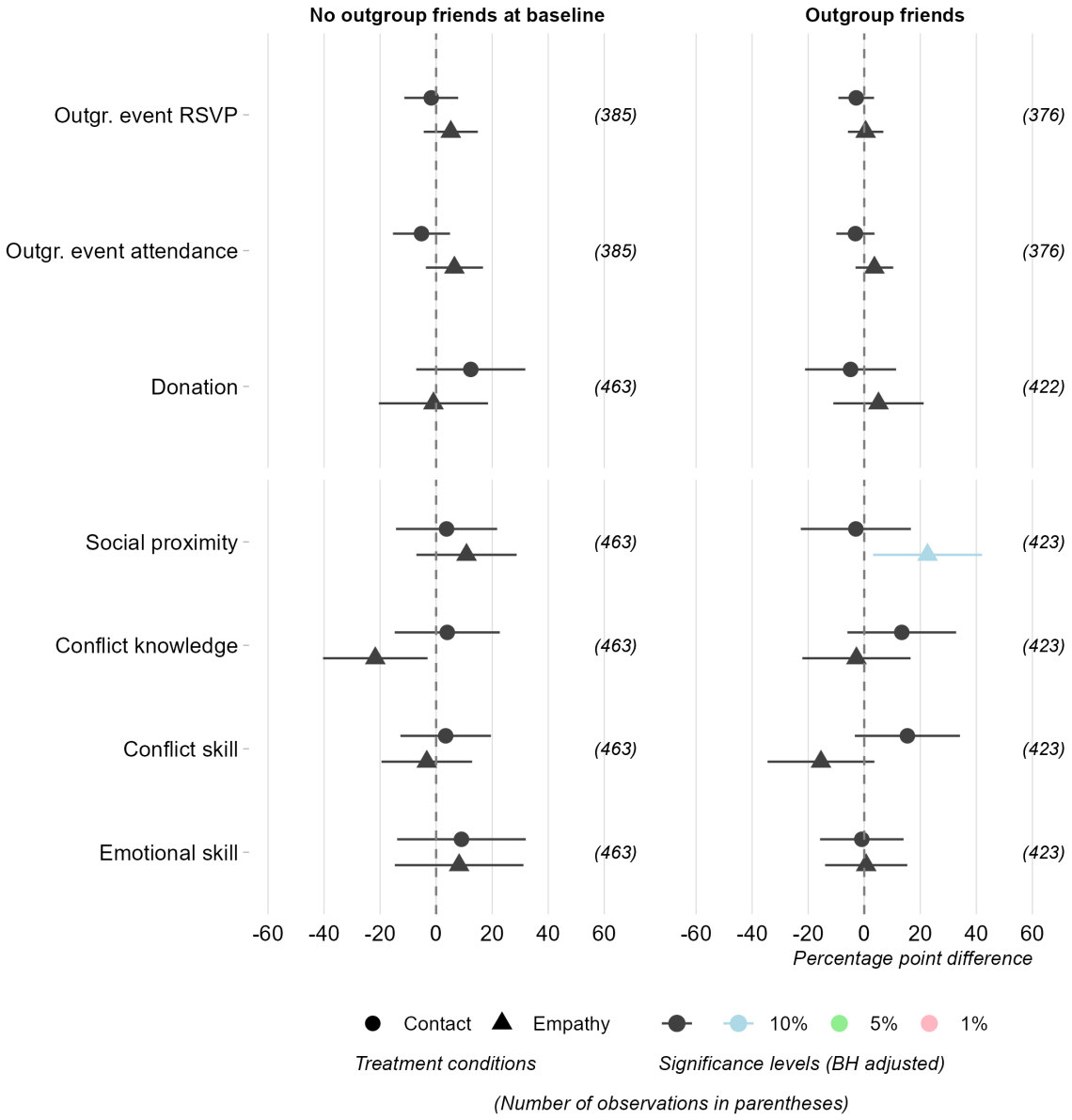

Figure I3: Youth results by baseline contact

Heterogeneous effects by HH income:

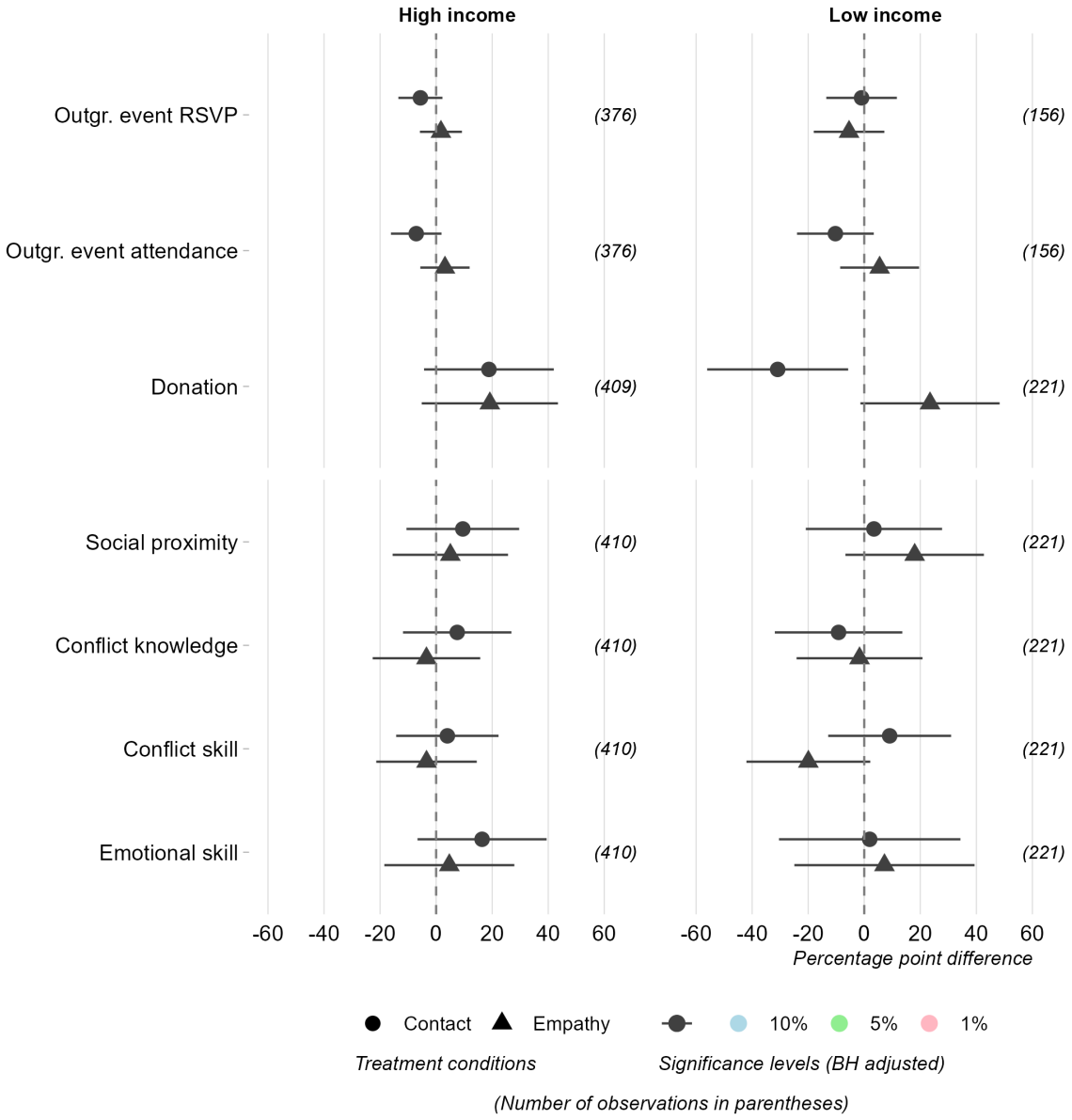

Figure I4: Youth results by HH income

Heterogeneous effects by sibling status:

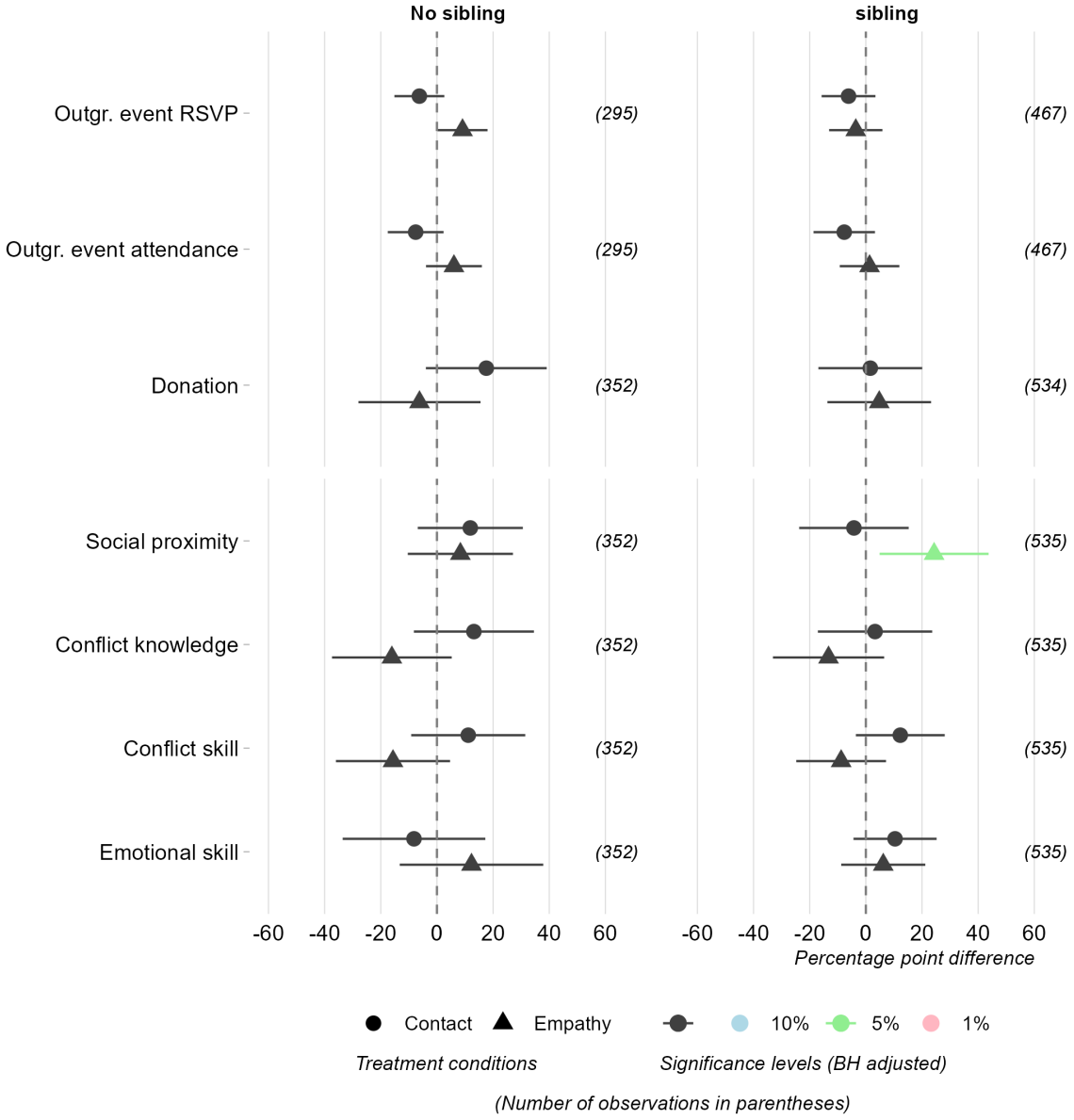

Figure I5: Effect of contact by sibling status

Heterogeneous effects by nationality and event type:

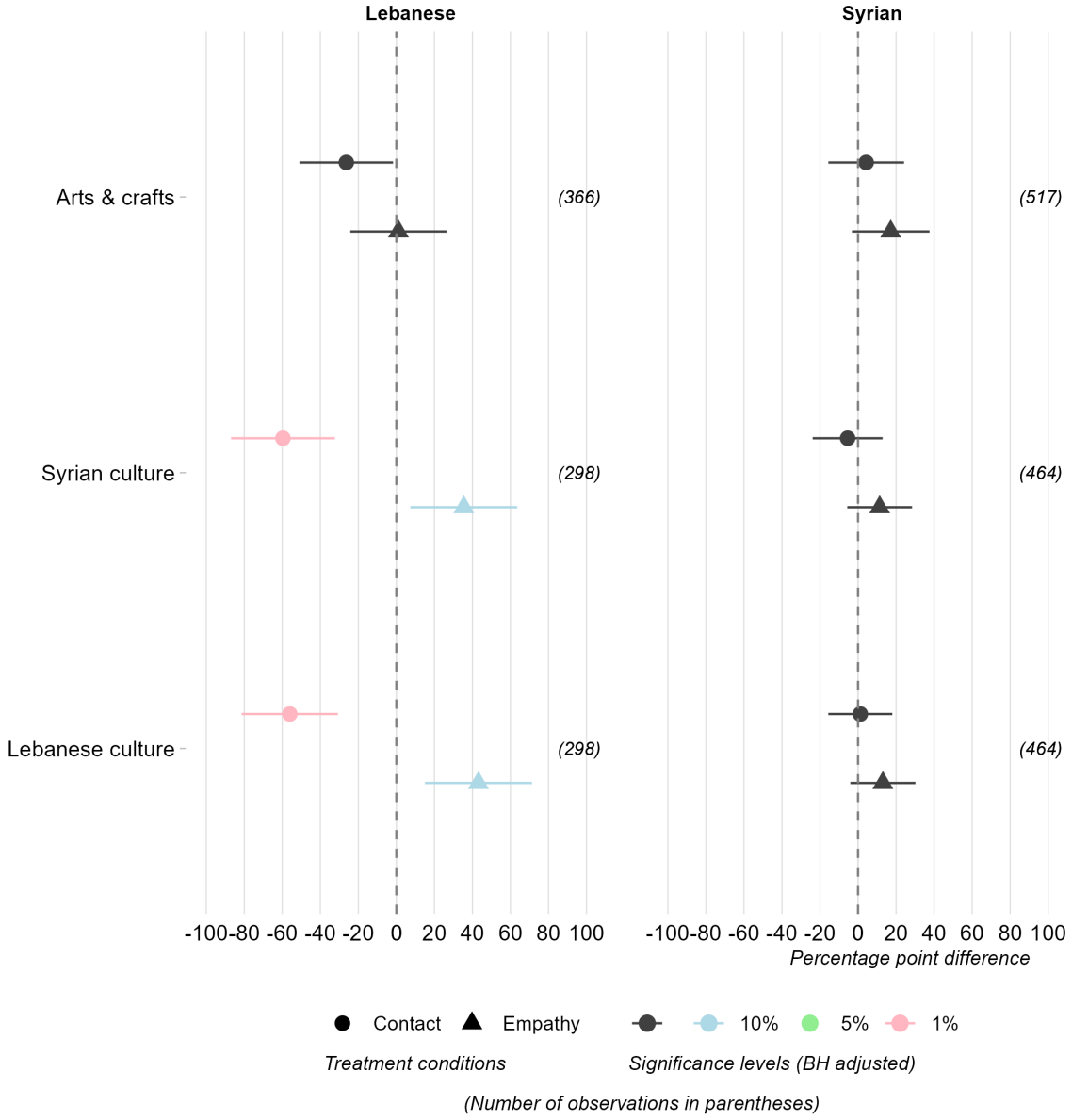

Figure I6: Effect on first principal component of event RSVPing and attending, by nationality and event type for youths

I.1 Heterogeneous effects, parents

Heterogeneous effects by nationality:

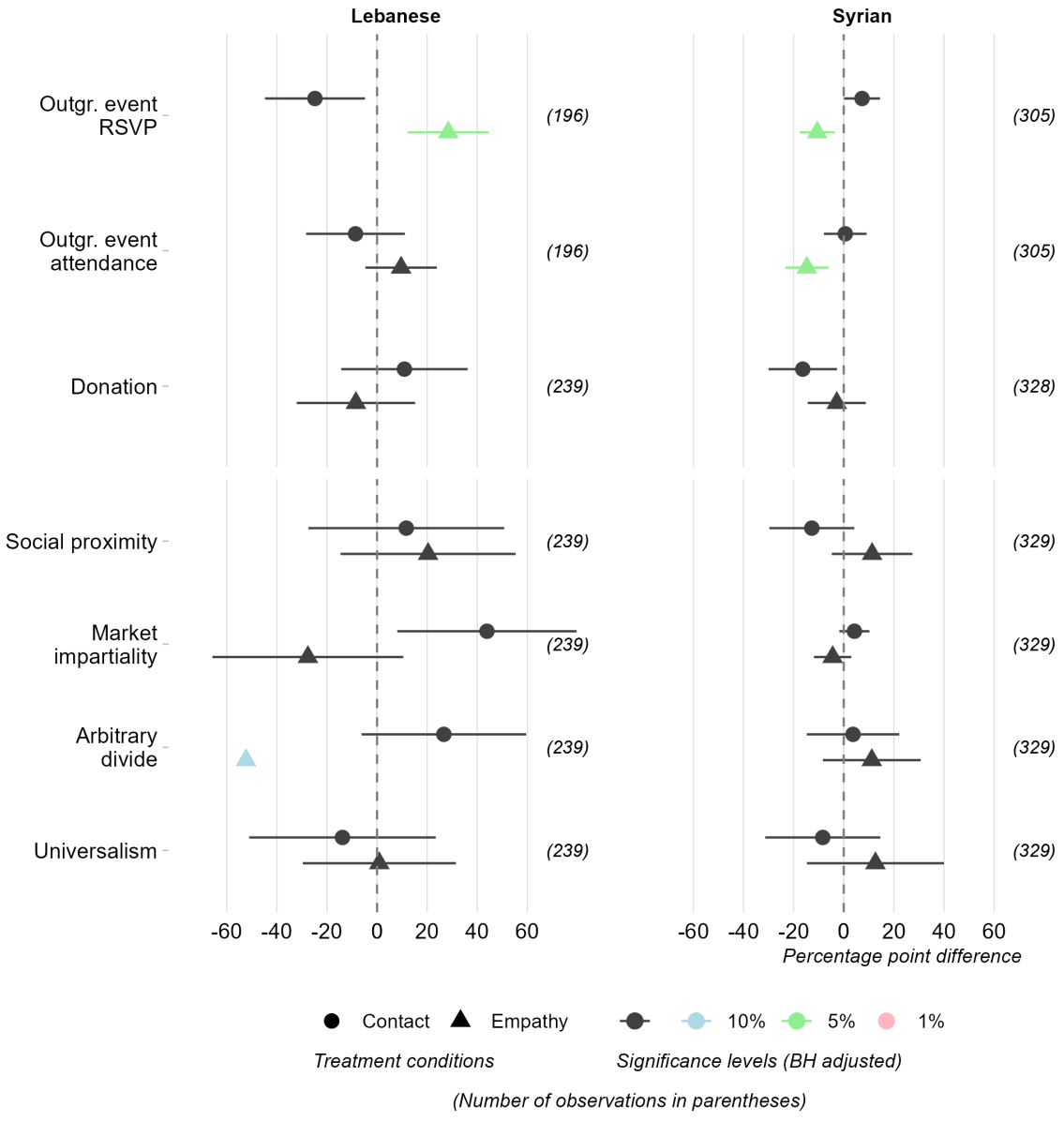

Figure I7: Spillover effect on parents, by nationality

Heterogeneous effects by gender:

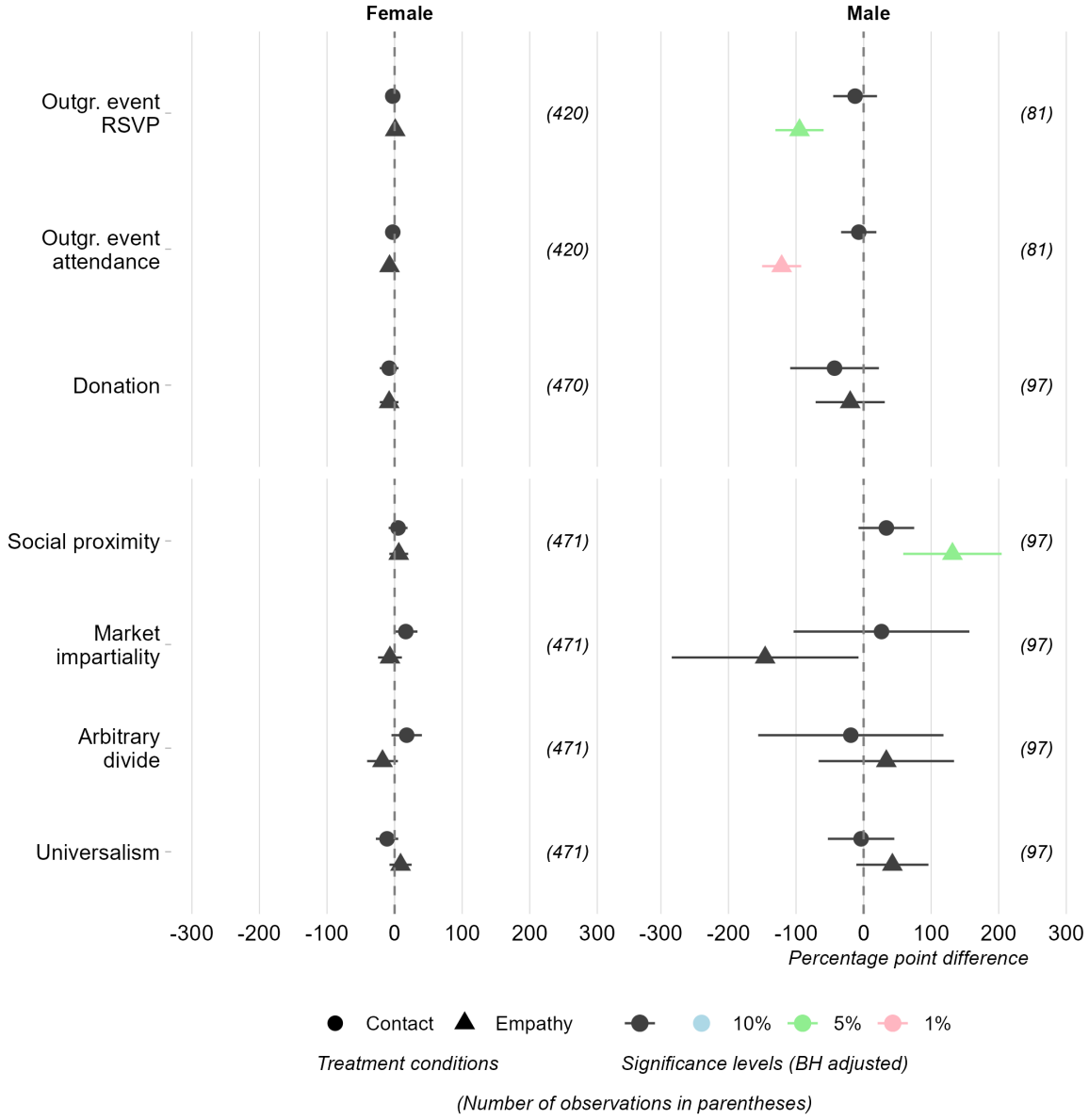

Figure I8: Spillover effect on parents, by gender

Heterogeneous effects by baseline contact levels:

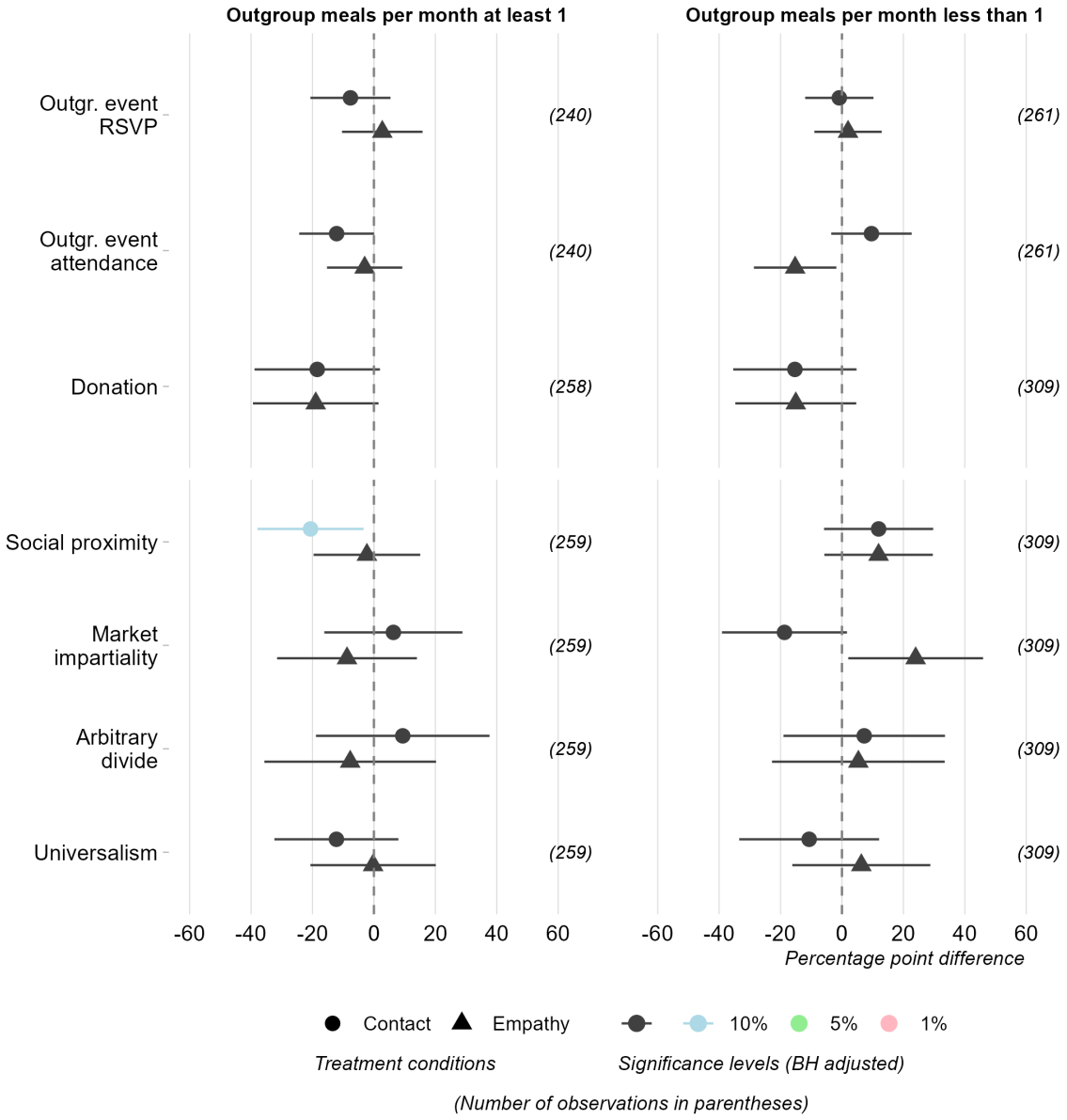

Figure I9: Spillover effect on parents, by baseline contact

Heterogeneous effects by HH income:

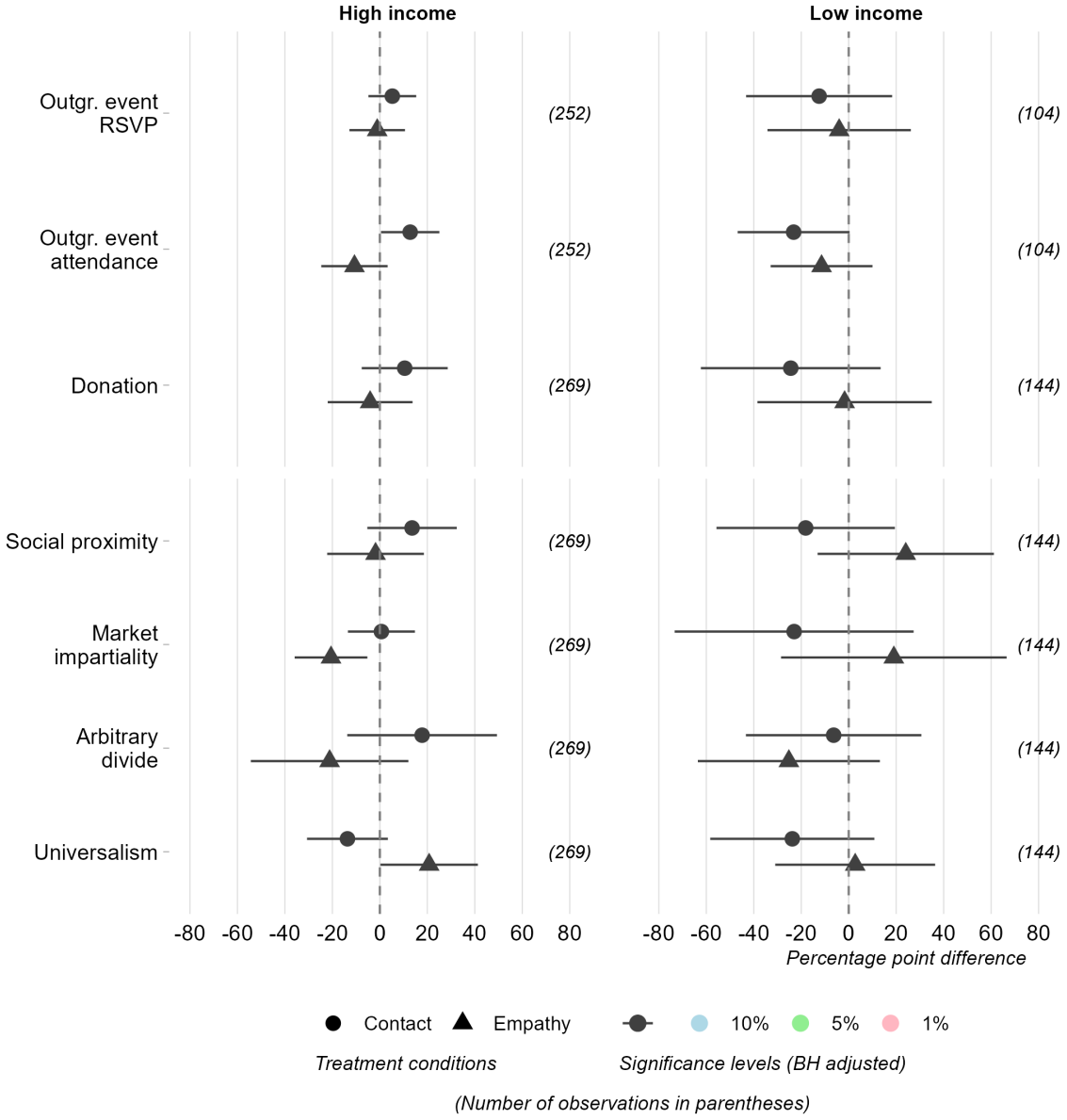

Figure I10: Spillover effect on parents, by HH income

J Other additional results

J.1 Mental health results, youth

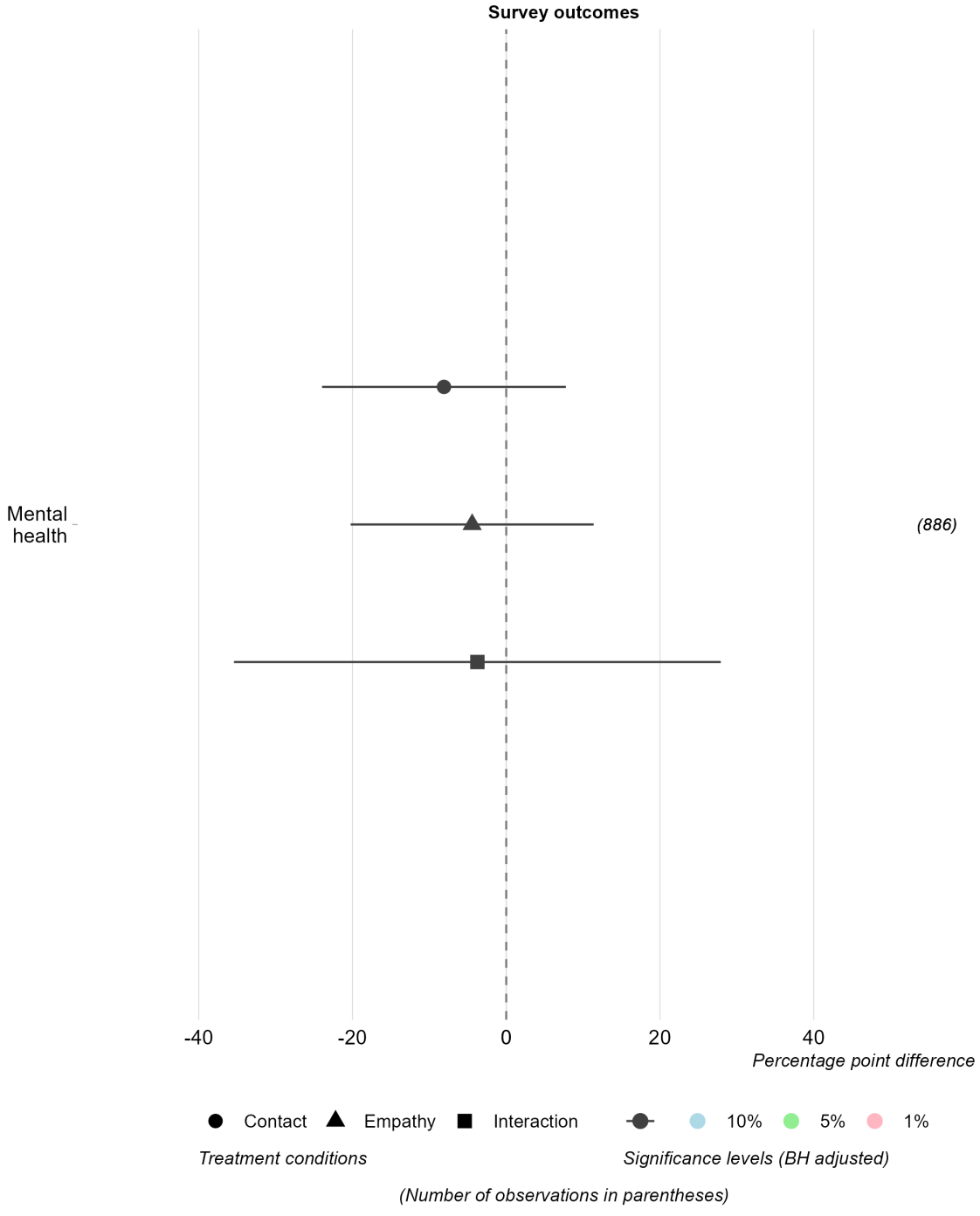

Figure J1: Effect on mental health

J.2 Results by survey items, youth

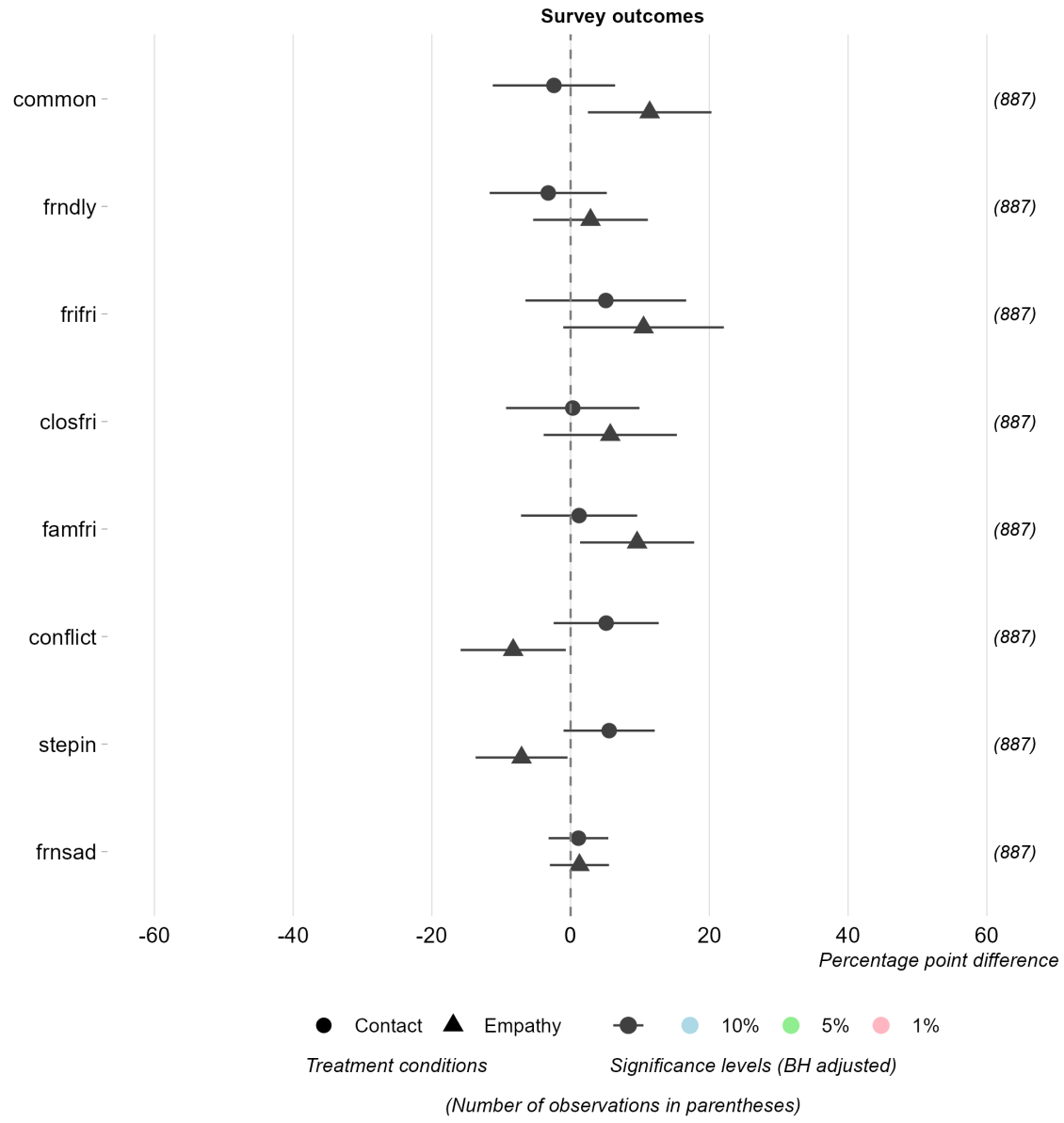

Figure J2: Youth results by survey item

J.3 Full factor results, parents

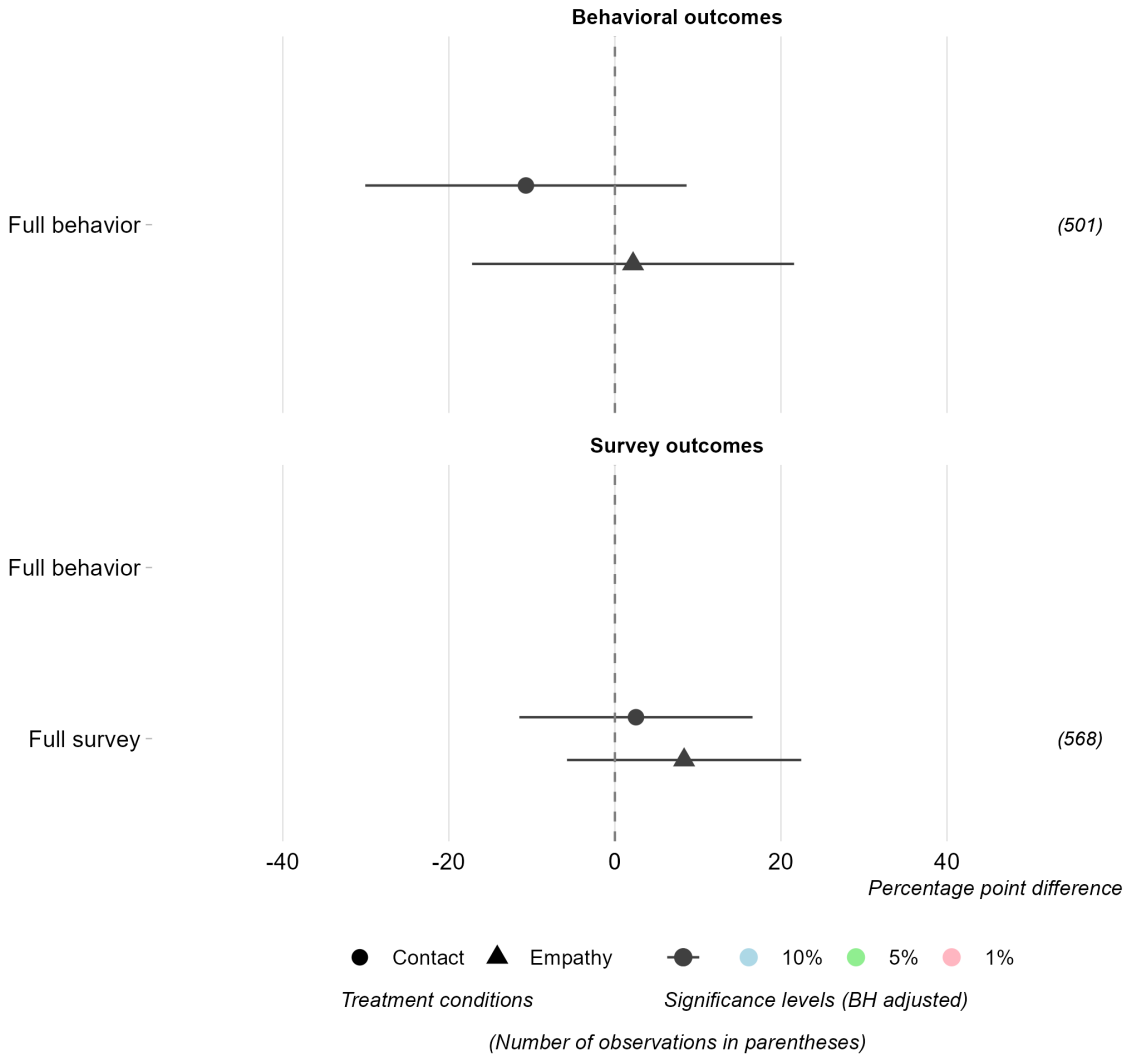

Figure J3: Spillover effect on parents, full factors

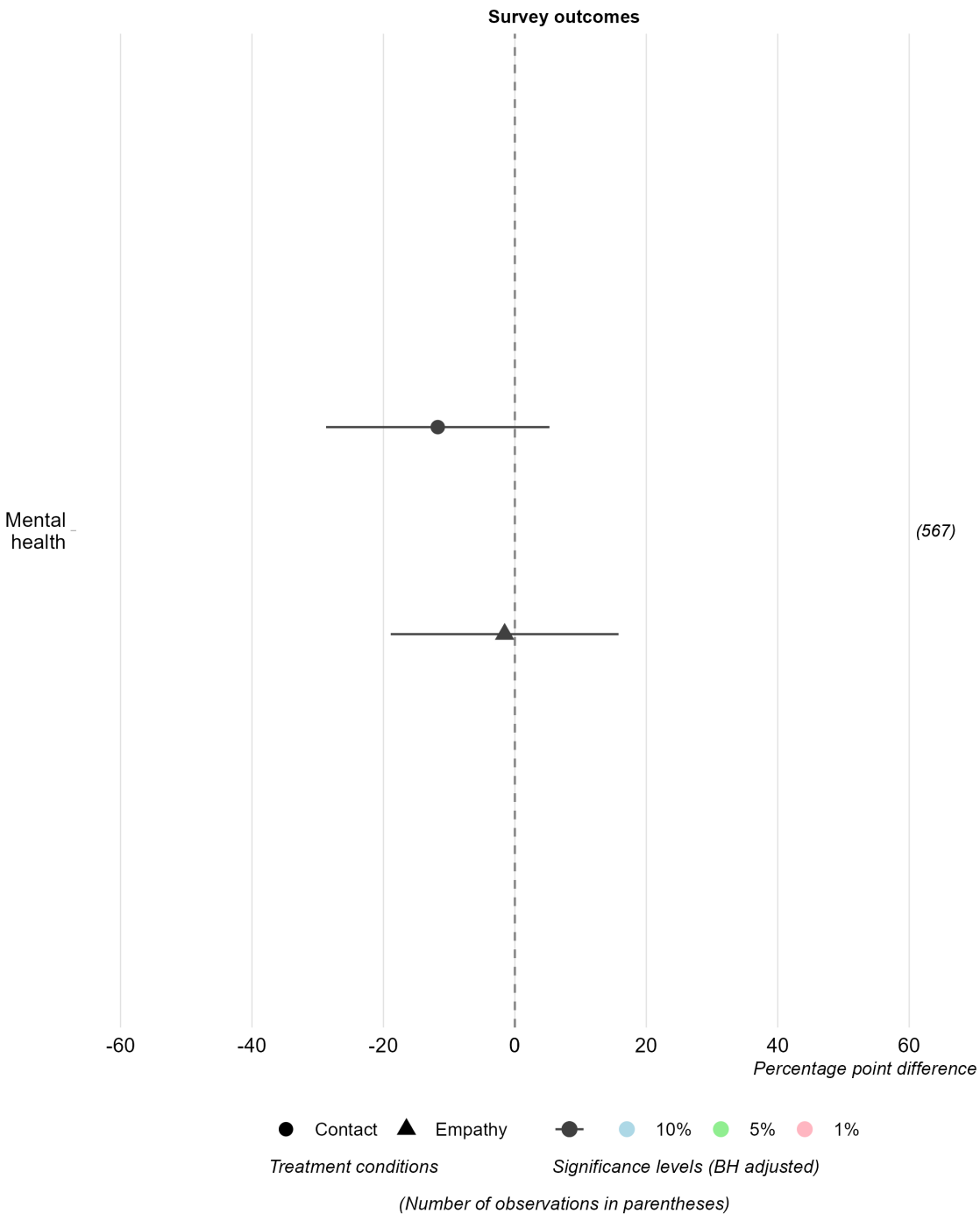

Figure J4: Spillover effect on mental health for parents

K Tabular results for the main models

	Outgr. event RSVP	Outgr. event attendance	Donation	Full behavior (factor)
Contact	−0.04	−0.06	0.07	−0.21*
	(0.04)	(0.04)	(0.07)	(0.10)
Curriculum	0.02	0.05	0.02	0.16
	(0.04)	(0.04)	(0.07)	(0.10)
Contact x Curric.	−0.07	−0.07	−0.03	−0.20
	(0.07)	(0.08)	(0.15)	(0.21)
Baseline outc.			0.35***	
			(0.05)	
Age	−0.01	−0.02	0.00	−0.08*
	(0.01)	(0.02)	(0.03)	(0.04)
Male	0.06**	0.03	0.08	0.00
	(0.03)	(0.03)	(0.07)	(0.09)
Lebanese	−0.10	−0.12**	−0.19*	−0.20
	(0.06)	(0.06)	(0.11)	(0.14)
Work	0.01	−0.00	0.06	0.15
	(0.04)	(0.04)	(0.10)	(0.13)
Cycle 1			0.15	
			(0.13)	
Cycle 2	−0.07	−0.09	−0.15	−0.24*
	(0.05)	(0.05)	(0.10)	(0.14)
Cycle 3	0.07*	0.06	0.14	0.23**
	(0.04)	(0.04)	(0.10)	(0.11)
(Intercept)	0.82***	0.79***	0.00	−0.07
	(0.02)	(0.02)	(0.04)	(0.05)
R^2	0.13	0.14	0.24	0.15
Adj. R^2	0.06	0.07	0.18	0.08
Num. obs.	762	762	886	762
RMSE	0.38	0.40	0.93	1.06
N Clusters	72	72	91	72

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table K1: Regression results for youth behavioral outcomes

	Social proximity	Conflict knowledge	Conflict skill	Emotional skill	Full survey (factor)
Contact	0.01	0.10	0.11	0.04	0.01
	(0.09)	(0.09)	(0.08)	(0.09)	(0.09)
Curriculum	0.19**	−0.17*	−0.14*	0.04	0.18*
	(0.09)	(0.09)	(0.08)	(0.09)	(0.09)
Contact x Curric.	−0.06	0.04	0.04	0.07	−0.07
	(0.18)	(0.18)	(0.16)	(0.17)	(0.19)
Baseline outc.	0.46***	0.36***	0.54***	0.45***	0.46***
	(0.04)	(0.03)	(0.06)	(0.05)	(0.04)
Age	−0.02	0.03	−0.02	0.01	−0.03
	(0.02)	(0.03)	(0.02)	(0.02)	(0.02)
Male	0.03	−0.05	−0.03	0.02	0.03
	(0.05)	(0.07)	(0.07)	(0.07)	(0.05)
Lebanese	−0.22**	−0.10	−0.19**	−0.04	−0.22**
	(0.10)	(0.10)	(0.09)	(0.13)	(0.10)
Work	0.00	0.07	−0.00	0.08	−0.00
	(0.11)	(0.10)	(0.07)	(0.10)	(0.11)
Cycle 1	0.56***	0.31**	−0.02	−0.08	0.55***
	(0.16)	(0.13)	(0.11)	(0.16)	(0.16)
Cycle 2	0.01	0.41***	−0.05	−0.07	−0.00
	(0.11)	(0.14)	(0.10)	(0.10)	(0.11)
Cycle 3	0.16	0.14	−0.06	−0.27*	0.16
	(0.10)	(0.11)	(0.10)	(0.14)	(0.10)
(Intercept)	−0.00	0.01	−0.04	−0.01	−0.00
	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)
R^2	0.37	0.22	0.39	0.26	0.38
Adj. R^2	0.33	0.16	0.34	0.20	0.33
Num. obs.	887	887	887	887	887
RMSE	0.83	0.92	0.83	0.91	0.83
N Clusters	91	91	91	91	91

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table K2: Regression results for youth survey outcomes

	Outgr. event RSVP	Outgr. event attendance	Donation	Full behavior (factor)
Contact	-0.17^{**}	-0.25^{***}	0.21	-0.72^{***}
	(0.06)	(0.07)	(0.16)	(0.15)
Curriculum	0.10	0.14^{*}	-0.13	0.41^{**}
	(0.06)	(0.07)	(0.16)	(0.17)
Contact x Curric.	-0.33^{**}	-0.28^{*}	-0.23	-0.81^{**}
	(0.12)	(0.14)	(0.33)	(0.32)
Baseline outc.			0.47^{***}	
			(0.09)	
Age	0.06^{*}	0.06^{*}	0.00	0.09
	(0.03)	(0.02)	(0.07)	(0.07)
Male	0.10^{*}	0.08	0.07	0.12
	(0.05)	(0.07)	(0.11)	(0.14)
Lebanese				
Work	0.20	0.13	-0.14	0.44
	(0.09)	(0.12)	(0.28)	(0.32)
Cycle 1			0.12	
			(0.31)	
Cycle 2	-0.37^{***}	-0.31^{***}	-0.40^{*}	-0.91^{***}
	(0.07)	(0.08)	(0.20)	(0.19)
Cycle 3	-0.07	-0.03	0.21	0.09
	(0.07)	(0.08)	(0.27)	(0.13)
(Intercept)	0.78^{***}	0.73^{***}	-0.15^{*}	-0.23^{**}
	(0.03)	(0.03)	(0.08)	(0.08)
R^2	0.24	0.24	0.38	0.26
Adj. R^2	0.09	0.09	0.27	0.11
Num. obs.	298	298	370	298
RMSE	0.42	0.45	1.08	1.15
N Clusters	46	46	57	46

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table K3: Regression results for behavioral outcomes, Lebanese youths

	Social proximity	Conflict knowledge	Conflict skill	Emotional skill	Full survey (factor)
Contact	−0.01	−0.06	0.10	−0.14	0.01
	(0.13)	(0.14)	(0.15)	(0.14)	(0.13)
Curriculum	0.30**	−0.03	−0.17	0.21	0.28**
	(0.14)	(0.14)	(0.15)	(0.15)	(0.13)
Contact x Curric.	−0.66**	−0.11	0.35	0.10	−0.65**
	(0.27)	(0.28)	(0.31)	(0.29)	(0.27)
Baseline outc.	0.53***	0.37***	0.60***	0.47***	0.52***
	(0.07)	(0.05)	(0.07)	(0.09)	(0.07)
Age	0.00	0.06	−0.04	−0.05	−0.00
	(0.04)	(0.04)	(0.05)	(0.04)	(0.05)
Male	−0.05	−0.11	−0.04	0.02	−0.04
	(0.09)	(0.12)	(0.14)	(0.11)	(0.09)
Lebanese					
Work	−0.27	0.27	−0.49	−0.37	−0.33
	(0.64)	(0.21)	(0.37)	(0.48)	(0.64)
Cycle 1	0.17	0.21	−0.39	−0.53	0.16
	(0.33)	(0.27)	(0.28)	(0.28)	(0.34)
Cycle 2	−0.07	−0.06	−0.40	0.06	−0.10
	(0.17)	(0.21)	(0.23)	(0.14)	(0.17)
Cycle 3	0.01	0.18	−0.35	−0.65**	0.01
	(0.19)	(0.25)	(0.20)	(0.22)	(0.20)
(Intercept)	−0.06	0.09	−0.37***	−0.05	−0.09
	(0.06)	(0.07)	(0.08)	(0.07)	(0.06)
R^2	0.52	0.30	0.38	0.42	0.52
Adj. R^2	0.43	0.18	0.26	0.32	0.44
Num. obs.	370	370	370	370	370
RMSE	0.84	0.91	1.08	0.88	0.83
N Clusters	57	57	57	57	57

***$p < 0.01$; **$p < 0.05$; *$p < 0.1$

Table K4: Regression results for survey outcomes, Lebanese youths

	Outgr. event RSVP	Outgr. event attendance	Donation	Full behavior (factor)
Contact	−0.00	0.01	−0.02	0.00
	(0.03)	(0.04)	(0.08)	(0.11)
Curriculum	0.04	0.05	0.05	0.15
	(0.03)	(0.04)	(0.07)	(0.11)
Contact x Curric.	−0.11	−0.14*	0.27	−0.29
	(0.07)	(0.08)	(0.16)	(0.22)
Baseline outc.			0.19***	
			(0.07)	
Age	−0.03*	−0.04**	−0.00	−0.11**
	(0.01)	(0.02)	(0.04)	(0.05)
Male	0.00	−0.02	0.06	−0.17
	(0.04)	(0.04)	(0.09)	(0.11)
Lebanese				
Work	0.01	0.01	0.13	0.17
	(0.04)	(0.04)	(0.10)	(0.12)
Cycle 1			0.05	
			(0.15)	
Cycle 2	0.12***	0.08	0.02	0.14
	(0.04)	(0.05)	(0.11)	(0.15)
Cycle 3	0.16***	0.13***	0.09	0.30*
	(0.04)	(0.04)	(0.11)	(0.14)
(Intercept)	0.86***	0.84***	0.11***	0.05
	(0.02)	(0.02)	(0.04)	(0.06)
R^2	0.20	0.17	0.16	0.16
Adj. R^2	0.10	0.07	0.05	0.06
Num. obs.	464	464	516	464
RMSE	0.32	0.35	0.78	0.96
N Clusters	61	61	74	61

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table K5: Regression results for behavioral outcomes, Syrian youths

	Social proximity	Conflict knowledge	Conflict skill	Emotional skill	Full survey (factor)
Contact	−0.04	0.11	0.03	0.14	−0.05
	(0.11)	(0.11)	(0.08)	(0.09)	(0.11)
Curriculum	0.18*	−0.13	−0.02	−0.02	0.18*
	(0.11)	(0.11)	(0.07)	(0.10)	(0.11)
Contact x Curric.	0.22	−0.13	−0.17	−0.10	0.21
	(0.22)	(0.22)	(0.16)	(0.19)	(0.22)
Baseline outc.	0.40***	0.35***	0.66***	0.41***	0.39***
	(0.05)	(0.05)	(0.08)	(0.07)	(0.05)
Age	−0.03	0.03	−0.02	0.03	−0.04
	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)
Male	0.10	−0.04	−0.04	0.06	0.10
	(0.07)	(0.08)	(0.07)	(0.09)	(0.07)
Lebanese					
Work	0.01	0.07	0.03	0.04	0.01
	(0.09)	(0.11)	(0.05)	(0.08)	(0.09)
Cycle 1	0.70***	0.53**	−0.09	−0.01	0.68***
	(0.18)	(0.19)	(0.12)	(0.26)	(0.18)
Cycle 2	−0.04	0.65***	0.04	−0.17	−0.06
	(0.15)	(0.15)	(0.07)	(0.12)	(0.15)
Cycle 3	0.04	0.28**	−0.05	−0.22**	0.04
	(0.11)	(0.12)	(0.11)	(0.10)	(0.11)
(Intercept)	0.05	0.00	0.21***	−0.01	0.06
	(0.05)	(0.05)	(0.04)	(0.05)	(0.05)
R^2	0.38	0.26	0.49	0.24	0.37
Adj. R^2	0.30	0.16	0.42	0.14	0.29
Num. obs.	517	517	517	517	517
RMSE	0.77	0.91	0.55	0.91	0.77
N Clusters	74	74	74	74	74

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table K6: Regression results for survey outcomes, Syrian youths

	Lebanese	Syrian
Contact	0.07	-0.13
	(0.15)	(0.31)
Curriculum	0.30^{*}	0.05
	(0.15)	(0.32)
Contact x Curric.	-0.81^{**}	-0.59
	(0.30)	(0.61)
Age	0.07	-0.01
	(0.07)	(0.07)
Male	0.20	0.00
	(0.14)	(0.18)
Work	-1.15^{**}	-0.63^{*}
	(0.22)	(0.32)
Cycle 3	0.37^{**}	0.18
	(0.14)	(0.30)
(Intercept)	-0.03	-0.66^{***}
	(0.07)	(0.16)
R^2	0.26	0.26
Adj. R^2	0.02	0.13
Num. obs.	174	309
RMSE	1.11	1.33
N Clusters	27	40

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table K7: Regression results for youth program recommendation by nationality

L Example empathy curriculum session script

Age Group: 13 - 14 years

Life Skills: Communication and Relationship Building

Session Six: Building Friendships Without Discrimination and Bullying

Objectives:

- Basics of accepting and understanding others.
- Respecting different opinions.

Key Messages:

- Successful relationships are based on empathy, honesty, values, behaviors, and effective communication.
- Friends play a crucial role in an individual's growth, health, and well-being. A diverse and rich network of friends is important.
- Time should be allocated to meet friends and engage in enjoyable activities, even during crises. This is part of normal development.
- Acceptance and respect for differences and similarities between people are essential.
- It is important to understand what bullying is and how to prevent and address it.

Preparation:

- Copies of treasure-shaped papers for each participant.
- A brown paper bag and a potato for each participant and the facilitator.

Duration:

30 minutes

Facilitator Notes:

- Relationships require many skills, including listening, communication, self-awareness, self-assertion, respect, and acceptance of differences.
- Time should be dedicated to meeting new friends and sharing feelings, games, secrets, and tastes.
- People from different cultures and backgrounds often share similar values and beliefs.
- Increase awareness of cultural perspectives and stereotypes that may be unintentionally acquired.

Session Flow:

- The facilitator welcomes the participants and reminds them that the circle is a safe space, emphasizing the importance of maintaining confidentiality.
- The facilitator encourages active participation while respecting everyone's opinions.
- The facilitator provides an overview of the session and explains its objectives.

Activities:

*Activity: "I Am a Good Friend and Choose Good Friends" (10 minutes)

- The facilitator distributes the treasure-shaped papers to the participants.
- Each participant is asked to write one quality they would like to see in a friend.
- Each participant reads their quality aloud and sticks their paper onto a large treasure model.

- After everyone has read their qualities, the facilitator explains that the qualities they wrote and wish to see in their friends are the same qualities they should exhibit with their friends (e.g., a good friend helps when needed, does not say hurtful things, and does not listen to others speaking badly about someone).

Activity: "The Potato" (15 minutes)

- The facilitator holds up a bag of potatoes and says, "I have here some potatoes. I never thought much about potatoes. I always considered them a given. To me, potatoes are all pretty similar. Sometimes I wonder if potatoes are a lot like people."
- The facilitator passes the bag around, and each participant takes one potato.
- The facilitator asks each participant to examine their potato, noting its bumps, scars, and imperfections. They should try to form a friendship with the potato for about a minute in silence. Get to know the potato well enough to introduce "your friend" to the group.
- After two minutes, the facilitator starts introducing their potato to the group, sharing a story about how their potato got its bumps.

Processing and Generalization (5 minutes)

- If we group all individuals into the same category and assume they all have the same traits, why are stereotypes dangerous?

Closing:

- The facilitator summarizes the session content and reiterates the key messages.