Reducing prejudice and promoting positive intergroup attitudes among elementary-school children in the context of the Israeli–Palestinian conflict

Rony Berger a, Joy Benatov b, Hisham Abu-Raiya c,*, Carmit T. Tadmor d

a Department of Emergency Medicine and PREPARED Center for Emergency Response Research, Ben-Gurion University of the Negev, Beer-Sheba, Israel
b Interdisciplinary Center, Herzliya, Israel
c Bob Shapell School of Social Work, Tel Aviv University, Israel
d Recanati School of Business, Tel Aviv University, Israel

Abstract

The current investigation tested the efficacy of the Extended Class Exchange Program (ECEP) in reducing prejudicial attitudes. Three hundred and twenty-two 3rd and 4th grade students from both Israeli–Jewish and Israeli–Palestinian schools in the ethnically mixed city of Jaffa were randomly assigned to either intervention or control classes. Members of the intervention classes engaged in ECEP’s activities, whereas members of the control classes engaged in a social–emotional learning program. The program's outcomes were measured a week before, immediately after, and 15 months following termination. Results showed that the ECEP decreased stereotyping and discriminatory tendencies toward the other group and increased positive feelings and readiness for social contact with the other group upon program termination. Additionally, the effects of the ECEP were generalized to an ethnic group (i.e., Ethiopians) with whom the ECEP’s participants did not have any contact. Finally, the ECEP retained its significant effect 15 months after the program’s termination, despite the serious clashes between Israel and the Palestinians that occurred during that time. This empirical support for the ECEP’s utility in reducing prejudice makes it potentially applicable to other areas in the world, especially those that are characterized by ethnic tension and violent conflicts.

© 2016 Society for the Study of School Psychology. Published by Elsevier Ltd. All rights reserved.

Keywords:
Prejudice-reduction program
Stereotyping
Intergroup attitudes
Contact hypotheses
Elementary school children
Israeli–Palestinians
Israeli–Jews

1. Introduction

Stereotyping and prejudice are among the most prevalent and significant psychological and social problems in the world (Minority Right Group, 2010; Save the Children, 2006). Both profoundly affect the security, mental health, and well-being of people in general, and of children in particular. The adverse consequences of stereotyping and prejudice on children and youth include poor school achievement, low self-esteem, health and behavioral problems, difficulties in interpersonal relationships, social exclusion, and generally compromised social–emotional growth (Flanagan, Syvertsen, Gill, Gallay, & Cumsille, 2009; Gaylord–Harden & Cunningham, 2009; Hernandez, 2008; Inzlicht & Kang, 2010; Levy & Killen, 2008; Paradies, 2006; Rivas-Drake, Hughes, & Way, 2009; Steele, Spencer, & Aronson, 2002; Williams, Neighbors, & Jackson, 2003). These outcomes have drawn the attention of social and educational psychologists in the last three decades, which has led to the proliferation of stereotyping and prejudice reduction programs.

* Corresponding author at: Bob Shapell School of Social Work, Tel Aviv University, Tel Aviv 69978, Israel.
E-mail address: aburaiya@gmail.com (H. Abu-Raiya).
Action Editor: Sherrie Proctor.

http://dx.doi.org/10.1016/j.jsp.2016.04.003
0022-4405/© 2016 Society for the Study of School Psychology. Published by Elsevier Ltd. All rights reserved.
Despite the demonstrated usefulness of many stereotyping and prejudice reduction programs, research regarding these programs is limited in a few key areas. Specifically, many prejudice-reduction programs were not conducted in real life settings (Paluck & Green, 2009), very few used follow-up measures (Beelmann & Heinemann, 2014), some included samples that cannot be considered representative (Hewstone et al., 2014), the majority targeted only one prejudice-promoting aspect (Killen, Rutland, & Ruck, 2011), and many were less effective in changing cognitive indicators of prejudice (Tropp & Pettigrew, 2005). Furthermore, despite growing evidence that some programs designed for prejudice reduction and positive intergroup attitudes promotion (PRPIA) are efficacious even in the context of protracted violent conflicts, the durability of their effects has not yet been fully documented (Lemmer & Wagner, 2015).

To address some of these limitations, the Class Exchange Program (CEP) was developed (Berger, Abu-Raiya, & Gelkopf, 2015). The CEP is a comprehensive multi-theoretical model that incorporates the main elements of three of the most widely used prejudice reduction models: contact, information, and cognitive-developmental. Berger et al. (2015) provided initial support for the CEP's efficacy in reducing prejudice among a sample of \( N = 262 \) Israeli-Jewish and Israeli-Palestinian elementary school children. Specifically, the CEP significantly reduced all facets of prejudice: the cognitive component (i.e., stereotyping), the affective component (i.e., negative feelings) and the behavioral attitudes component (i.e., discriminatory tendencies, readiness for social contact with children from the other group).

Despite the promising initial outcomes evidenced in Berger et al. (2015), the CEP was applied for a short time, lacked elements such as perspective-taking and empathy training that proved useful in previous interventions, and produced small effects on prejudice measures. Further, the long-term impact of the CEP has not been tested. Thus, the current study addressed these shortcomings by testing the immediate and long-term efficacy of an extended version of the CEP.

In what follows, we first describe the underpinning theoretical bases of interventions designed for reducing prejudice and promoting positive intergroup attitudes. Then, we review the existing PRPIA programs applied with children living in both peaceful multicultural and conflict-laden societies. We next outline the limitations of implementing these interventions, particularly when applied in areas characterized by violent and protracted conflicts like the Israeli–Palestinian conflict. Finally, we describe a comprehensive PRPIA approach, the Extended Class Exchange Program (ECEP), and evaluate its immediate and long-term efficacy in reducing negative cognitive, emotional, and behavioral attitudes among Israeli Jewish and Israeli Palestinian elementary school students.

1.1. Theoretical models for PRPIA interventions

PRPIA interventions are derived from three broad underlying theoretical frameworks for intergroup relationships: the contact model, the information model, and the developmental model (Stephan & Stephan, 1996). First, the contact model is based on the intergroup contact theory, which presupposes that if people have the opportunity for mutual acquaintance and communication they are more likely to understand and accept each other (Allport, 1954; Miller & Brewer, 1984). Under optimal conditions, contact between groups can be effective in reducing negative intergroup attitudes and prejudices (Allport, 1954; Amir, 1969; Pettigrew, 1998).

These conditions include: (a) equal status, meaning that both groups in the contact situation are treated as equals; (b) common goal, where both groups share a common task; (c) intergroup cooperation, which involves both groups working together to achieve their common goals; and (d) support of authorities, meaning that there is support of the contact by authorities viewed as significant to both groups’ members. Although Pettigrew and Tropp’s (2006) meta-analysis of face-to-face intergroup contact interventions showed that contact under optimal conditions have yielded results that are more efficacious than contact interventions that did not meet these conditions, they suggested that these conditions are not necessary for prejudice reduction.

More recently, some researchers have suggested that virtual contact (i.e., contact via internet), para-social contact (i.e., positive media portrayals of intergroup relationships) and extended contact (i.e., knowing an intergroup member that has positive relationships with an outgroup member) can also reduce negative attitudes toward outgroup members (Al-Ramiah & Hewstone, 2013; Andrichetto, Mari, Volpato, & Behluli, 2012; Eller, Abrams, & Zimmermann, 2011). Interventions based on the contact model have included dialogical groups, integrated schooling, cooperative learning, and bilingual education (Beelmann & Heinemann, 2014).

Second, the information model is influenced by socialization and social learning theories. These theories presume that attitudes toward outgroup members are shaped by knowledge and information derived either from direct modeling of socializing agents (i.e., parents, relatives, teachers) or from media and educational programs (Bandura, 1986; Brand, Ruiz, & Padilla, 1974; Stephan & Stephan, 1984; Triandis, 1975). Because ignorance and lack of information facilitate stereotyping and prejudicial attitudes, this model proposes information-based interventions like intercultural training and anti-bias information.

Third, the developmental model is anchored in the social-cognitive developmental theory. The developmental model assumes that children’s intergroup attitudes are also predicated on the developmental stage of their socio-cognitive skills (Aboud, 2008; Bigler & Liben, 2006). This model further supposes that as children develop more sophisticated social and cognitive skills (e.g., logical classification, an ability to weigh two or more categories simultaneously, and perspective taking), their tendency to utilize stereotyping, prejudicial attitudes, and discrimination declines. Hence, programs reflecting this perspective focus on

---

1 In this article, programs designed for prejudice reduction and positive intergroup attitudes promotion will be referred to as PRPIA interventions.
training children in social-cognitive skills such as social categorization, perspective taking, conflict resolution, and moral decision-making.

In addition to the theoretical models described, Ben-Ari (2004) suggested that cognitive and motivational barriers to receiving new information via intergroup contact or instructional programs should be addressed. She proposed a meta-cognitive intervention model that aims to develop metacognitive awareness of intergroup biases. Ben-Ari maintained that such awareness will help children change their intergroup social perceptions and judgments.

Recent findings indicate that neither of the models is sufficient to combat prejudice (Aboud et al., 2012; Beelmann & Heinemann, 2014). For example, in general, prejudice reduction programs have been shown to decrease negative emotions, but were much less effective on reducing negative cognitions (Pettigrew & Tropp, 2008; Tropp & Pettigrew, 2005). Indeed, recent theories of intergroup attitudes have attempted to account for the various factors that impact children’s stereotype and prejudice development by combining socio-contextual and socio-cognitive constructs within more comprehensive theoretical models. An example of such a theory is the social reasoning developmental perspective (Rutland, Killen, & Abrams, 2010). This theory borrows from intergroup contact theory (Allport, 1954), social identity theory (Tajfel & Turner, 1986), and social domain theory of moral development (Turiel, 2002). Based on the social reasoning developmental theory Killen and colleagues (Killen et al., 2011) suggest that an integrated prejudice reduction model should address peer relationships, adult interactions, socialization messages, social-cognitive judgments, and attitudes. Thus, whereas early models were singular in nature, current research supports more comprehensive, multi-theoretical models.

1.2. PRPIA interventions among children

Several reviews and meta-analyses have been conducted in recent years focused on PRPIA interventions among children. These reviews (e.g., Aboud & Levy, 2000; Aboud et al., 2012; Beelmann & Heinemann, 2014; Paluck & Green, 2009; Pettigrew & Tropp, 2006) summarize the progress in the field and evaluate the efficacy of the PRPIA interventions. Next, we review representative PRPIA intervention studies based on the three theoretical models previously outlined. This review differentiates interventions conducted among children living in peaceful multicultural societies and those carried out in conflict zones.

1.2.1. PRPIA interventions among children in peaceful multicultural societies

The first group of interventions conducted among children in peaceful multicultural societies are derived from intergroup contact theory (Allport, 1954; Pettigrew & Tropp, 2011) and include programs that entail direct contact (i.e., face-to-face contact) and others that promote indirect contact (i.e., contact that is not face-to-face). Direct contact interventions include programs such as integrated schooling (Banks, 2009; Schofield, 1995; Stephan & Stephan, 2001), cooperative learning (Aronson & Patnoe, 1997; Johnson & Johnson, 1999; Slavin & Madden, 1979) and bilingual education (Bekerman, 2005; Cummins, 2000; Genesee & Gándara, 1999). Indirect contact interventions include programs that utilize extended contact (Andrighetto et al., 2012; Cameron & Rutland, 2006), virtual contact which investigated the impact of online intergroup contact on prejudiced and stereotyped perceptions of others (Amichai-Hamburger, Hastler, & Shani-Sherman, 2015; Alvídrez, Piñeiro-Naval, Marcos-Ramos, and Rojas-Solís, 2015) and para-contact (Brenick, Henning, Killen, O’Connor, & Collins, 2007).

One of the largest studies of direct contact explored the impact of racially integrated schooling. This study was conducted by Hallinan and Teixeira (1987) who examined cross-race friendships of 473 African-American and Caucasian elementary school students in 18 desegregated classes. Students were evaluated at six time points with sociometric questionnaires. Findings revealed that in desegregated classes (i.e., mixed race classes), students reported more cross-racial friendships than students in segregated classes. Additionally, reduced levels of stereotyping and discrimination were found among younger British children exposed to high levels of interracial direct contact within the school setting compared to children with lower levels of interracial contact (Rutland, Cameron, Bennett, & Farrell, 2005).

Blaney, Stephan, Rosenfield, Aronson, and Sikes (1977) used the jigsaw puzzle method as a counter-prejudice intervention with 245 9th grade students. This method is an illustration of cooperative learning, another direct contact PRPIA intervention. Students in the experimental group were divided into small mixed ethnic groups who engaged for 45 min in a learning task, three days a week for six weeks. Each student learned just one part of a puzzle and was responsible for teaching this part to his or her group mates. The teachers facilitated the process of interdependent learning in small groups. The experimental group was compared with 59 5th graders in traditional, teacher-taught (non-ethnic contact control) classrooms. Sociometric instruments measuring the students’ attitudes toward the school and their classmates were administered before and after the intervention. Results showed that students in the experimental group manifested higher self-esteem compared to students in the control group. Additionally, students in the experimental group showed an increase in liking toward their group mates (including mixed ethnic students), whereas the liking level of the control group students remained the same.

Finally, in terms of direct contact PRPIA interventions, bilingual education provides an opportunity for intergroup contact between children from different ethnic backgrounds on more equal terms, as well as facilitates communication between them. For instance, Wright and Tropp (2005) conducted a study that investigated the impact of bilingual versus English-only instruction on intergroup relationship between Caucasian and Latino elementary-school students. Participants included 351 students, ages 5–7 from five Central California schools, who attended ethnically mixed bilingual classes with Latino children or monolingual ethnically homogenous classes. Comparisons between the two groups showed decrease in ingroup favoritism, increase in outgroup friendship preferences and higher perceived similarities for the children in the bilingual classes compared to those in the English-only classes.
A PRPIA intervention based on extended contact theory proposes that knowledge of ingroup–outgroup friendships leads to the reduction of intergroup prejudice and change in intergroup relationship. For example, Cameron and Rutland (2006) studied the impact of a six-week intervention, involving reading stories featuring disabled and non-disabled children in friendship contexts, on 5–10 year-old children. Results showed that the intervention led to increased positivity toward the disabled, particularly in the intergroup-extended contact.

Another form of indirect contact which has shown to be effective in reducing intergroup prejudice and promoting positive intergroup interaction is virtual contact. Alvídez et al. (2015) investigated the impact of computer-mediated contact on intergroup attitudes toward an outgroup members. Spanish-born students who performed on-line tasks in a virtual team that included a student of Latin-American background, reduced their prejudiced perceptions toward the Latin-American outgroup if they perceived the outgroup member to be attractive.

Finally, para-social interaction is another indirect-contact PRPIA intervention that provides viewers of communication media with an opportunity to be in contact with outgroup members. For example, Schiappa, Gregg, and Hewes (2006) found that increased viewing of a popular situation comedy, that positively portrayed gay men, significantly lowered the level of sexual prejudice toward homosexuals.

The second group of interventions was derived from the information model and includes multicultural education and anti-bias programs (Banks, 2009; Bennett, 1986; Dovidio et al., 2004; Stephan & Vogt, 2004). In two experiments examining the impact of multicultural training and an anti-bias program on racial attitudes, students showed decreased levels of both explicit and implicit prejudices toward African-Americans following these programs compared to control groups (Rudman, Ashmore, & Gary, 2001).

The third group of interventions was derived from the social-cognitive developmental model and includes trainings in cognitive and social-cognitive skills such as social categorization, perspective taking, empathy, and moral decision-making (Bigler & Liben, 2007; Killen & Rutland, 2011; Nesdale, 2004). For example, Aboud and Fenwick (1999) evaluated a program that focused on differential judgment of people based on internal versus external attributes. In this study, 126 Caucasian and Black Canadian 5th graders were divided into either experimental or control groups. The experimental groups received 11 weeks of a structured prejudice reduction program that focuses on attention to individual rather than racial qualities of people. The control groups followed standard curriculum of personal and social development, which included a segment on respect for people with different life styles. Prejudicial attitudes were measured by the Multiresponse Racial Attitude Measure (Doyle & Aboud, 1995) before the program and two months following the program. Results showed that the program was effective in reducing prejudice among the students, particularly among the highly prejudiced ones.

1.2.2. PRPIA interventions among children in conflict zones

PRPIA interventions carried out in areas mired with conflicts, or in post-conflict societies, are important to promote peaceful relationships between the implicated ethnic, religious or national groups. However, conducting PRPIA interventions in the context of violent intergroup conflict, particularly in that of a protracted and ongoing conflict is especially challenging. Thus, the empirical data regarding their efficacy have been much more limited than for PRPIA programs implemented in relatively peaceful multicultural societies.

PRPIA interventions implemented and studied in conflict zones include direct contact interventions such as co-existence programs/encounter groups (Maoz, 2004, Maoz, 2006; Salomon, 2004; Stephan & Stephan, 1996) and bilingual schooling (Bekerman, 2005). Indirect contact interventions include programs such as extended contact (Turner, Hewstone, Voci, Paolini, & Christ, 2007), internet contact (Alvídez et al., 2015; Amichai-Hamburger et al., 2015) and para-contact (Harwood, Hewstone, Hamburger, & Tausch, 2013). Information-based interventions include interventions such as diversity training (Cameron & Turner, 2010) and peace education (Salomon, 2006). To our knowledge, there has been no prejudice-reduction studies focusing exclusively on social-cognitive skill training, few programs did manipulate children’s perspective taking and attempted to instill empathy in them (Lustig, 2003; Slone, Tarrasch, & Hallis, 2000). In what follows, we review in detail some of these studies.

Maoz (2000) examined the impact of a peace education program that was implemented with Palestinians and Jewish–Israeli youth. The two-day intensive workshop entailed face-to-face interactions between the youth. Fifty-two Jewish–Israeli 10th grade students and 48 10th grade Palestinian students were divided into three groups that dealt with social, cultural, and political issues via sharing personal narratives and discussion of the conflict. Quantitative and qualitative data of mutual perceptions and intergroup attitudes showed significant reduction of stereotyping and increase in positive intergroup attitudes following the intervention.

Malhotra and Liyanage (2005) evaluated another program of direct contact encounter, which happened between Tamil and Sinhalese young adults in the post-conflict Sri Lanka. These young adults attended a four-day peace camp. The program in the camp included lectures, experiential and creative activities and tours to multiethnic villages. Changes in intergroup relationship were assessed one year after the termination of the program via attitudinal (empathy questionnaire) and behavioral (willingness to donate money to outgroup children) measures. Results showed that participants in the peace camp were more empathic and more willing to donate money to outgroup children in need compared to nonparticipants. This is one of the only studies that showed long-term effect of face-to-face contact. However, limitations include (a) participants’ attitudes and behaviors were not assessed prior to the intervention and (b) control group members did not have financial means to participate in the program, which brings into question the comparability of the experimental and control groups.

As for bilingual programs, Bekerman and Horenczyk (2004) conducted a study that followed two Arab–Jewish bilingual co-education elementary schools. These bilingual co-education schools have been using a re-categorization strategy, which promoted a common ingroup identity of “Israeliness” among the Jewish and Arab students. Qualitative analysis of social interactions
between the Arab and Jewish students revealed an increase in positive intergroup relationships within the students’ classrooms, but not outside of the classrooms and school. In other words, the change in attitudes toward members of the other ethnic group did not generalize to other children in the school or the community.

Several studies testing the efficacy of extended contact interventions have also shown that stories, radio plays, or films which explicitly display friendships or positive relations between ingroup and outgroup members reduces stereotyping and prejudice between ethnic groups (Brenick et al., 2007; Cole et al., 2003; Paluck, 2009; Slone et al., 2000; Staub, Pearlman, Gubin, & Hagengimana, 2005). Paluck (2009) presented a notable example of an extended program using the media in post-conflict Rwanda. In a yearlong carefully designed field experiment, the researchers divided two Rwandan communities (N = 480) into two groups – the experimental group listened to an educational radio soap opera featuring messages against prejudice and violence and the control group listened to a radio health soap opera. The educational program depicted two fictional communities in a conflict (parallel to the Rwandan history) where some characters from both communities unite together to avoid a violent conflict and seek a peaceful solution. Results showed that the educational radio program positively influenced listeners’ perceptions of social norms and their behaviors regarding intermarriage and cooperation as well as enhanced their empathy toward outgroup members.

Brenick et al. (2007) also studied the impact of media on cultural knowledge, stereotypes and social conflict resolution on preschool Middle Eastern children, specifically Jewish–Israeli, Palestinian–Israeli, and Palestinians from the West Bank. The program utilized the well-known TV children program, Sesame Street, to create series episodes geared to promote respect, understanding, and empathy among children. The children were individually interviewed before and after the program and asked questions regarding stereotypes toward the other group and cultural similarities between the two ethnic groups through conflict resolution vignettes that were presented to them. Results showed that all three groups significantly increased their positive view of members of the other culture, their knowledge of the other culture and the use of pro-social reasoning in dealing with conflict-laden situations.

In situations where the two ethnic communities are separated in an unapproachable manner (e.g., Palestinians from Gaza Strip and Israelis) or when intergroup meetings are dangerous to either or both sides, using internet-based meetings might be a particularly viable solution. For example, Yablon and Katz (2001) used internet-based communications to promote understanding, equality, tolerance, and peace between Israeli Jewish and Israeli Bedouin high school students. The program comprised workshops conducted by experts trained in the art of mediation, two-day face-to-face meetings, and internet-based weekly chat room and e-mail sessions. Pre and post-questionnaires measuring social affinity (e.g., understanding, closeness, warmth) and emotional attitudes (e.g., anxiety, anger, fear, tension) were administered to the students. Results indicated that Jewish students adopted more favorable attitudes toward Bedouins, but Bedouin students’ attitudes towards Jewish students remained unchanged.

Despite the fact that peace education in the context of an ongoing intractable conflict, like that in the Middle East, is a formidable task, several programs were developed and studied (Bar-Natan, 2006; Biton & Salomon, 2006; Rosen & Salomon, 2011). For example, Biton and Salomon (2006) explored the impact of a popular peace education program with 565 Jewish Israeli and Palestinian 10th grade students on their perceptions of the concept of peace as well as their intergroup relationships. The peace program included structured curriculum delivered by the teachers as well as a short face-to-face workshop focusing on developing tolerance, equality, and social justice. Results indicated that both Israeli and Palestinian participants in the program perceived more positive aspects of peace (cooperation and harmony) compared to nonparticipants in the program. Furthermore, Palestinian nonparticipants reported more mistrust and hatred toward the Israelis compared to Palestinian participants who maintained their positive attitudes toward Israelis despite the ongoing political violence. Several other studies examining this peace program found greater intergroup friendships among Jewish and Palestinian participants (Bar-Natan, 2006) as well as reduction in stereotyping, prejudices and negative feelings (Rosen, 2006).

Though portions of some of the programs mentioned earlier aimed to help children acquire skills such as perspective taking, empathy or moral reasoning, only few interventions focused directly on these skills. An example of such intervention is a peace education program in Israel that aimed to increase perspective taking and empathy among 12th grade Jewish students by using instruction about foreign conflicts (Lustig, 2003). The curriculum of this program focused on exploring the underlying processes and the consequences of historical conflicts such as conflicts in ancient Greece and the conflict between Catholics and Protestants in Northern Ireland. Following the program, the students were asked to write essays about the Israeli–Palestinian conflict from both an Israeli and a Palestinian point of view. Results showed that participants in the program were more sympathetic toward Palestinians in general and were also more able to see the Israeli–Palestinian conflict from both perspectives. Findings suggest that the program helped students to extrapolate from the lessons learned from other conflicts and apply these lessons to their own situation.

Slone et al. (2000) empirically assessed the efficacy of another program that aimed to help students develop empathy and compassion. These researchers randomly divided 209 Jewish-Israeli 5th grade students into two experimental and two control groups. The two experimental groups received either textual or audiovisual stereotype-reduction, which consisted of a series of stories depicting complex social situations between Arab and Jewish children. Participants in the control groups, on the other hand, watched/listened to stories about nature. Following the readings or the audiovisual presentations, the teachers held discussions regarding the students’ personal and emotional reactions. They encouraged students to take the perspective of the stories’ characters and to empathize with their experiences. The intervention was conducted on a weekly basis for six weeks. Pre and post-intervention semantic differential measures of stereotypes indicated a significant reduction in stereotyping of the Arab children by the Jewish students.
Finally, Niens, Kerr, and Connolly (2013) conducted one of the most rigorous studies combining peace education curricular materials and activities with cross-community contact in the post-conflict Northern Ireland. The program was designed to address controversial issues relating to sectarianism and the conflicted past in Northern Ireland as well as to promote intergroup attitudes among students. The study was designed as a cluster randomized controlled trial involving 30 primary and post-primary schools, which were paired up and then randomly divided to three conditions: curriculum and contact, curriculum only, and control. Five hundred and two 6th–8th grade students participated in the study, some in cross-community schools and some in single community school. Trained teachers delivered the curricular program in 12 sessions. Outcome measures included identity affirmation and identity exploration, inclusion of the other, social distance, tolerance, pro-social behavior and standing up against injustice (aggressive behavior and ignoring behavior). Results showed that the program increased learning about people from different religious communities in Northern Ireland and improved intergroup relations. The addition of contact to the curriculum resulted in an increase of positive attitudes towards other religious and cultural groups.

1.3. Summary and limitations of the PRPIA interventions

Four main conclusions can be drawn from the review of PRPIA interventions. First, no singular intervention could be identified as the most effective approach for reducing prejudice and promoting positive intergroup attitudes among children. Second, though the three types of prejudice-reduction interventions showed some positive results, the strongest effect sizes were found for interventions based on either direct contact or social-cognitive training that promote empathy and perspective taking. Third, the overall effect sizes of all the reviewed interventions including the ones we reviewed were low to moderate (Beelmann & Heinemann, 2014). Finally, the evidence suggest that “a much more rigorous and broad-ranging empirical assessment of prejudice reduction strategies is needed to determine what works” (Paluck & Green, 2009, p. 339).

Further, limitations of current PRPIA programs exist, in general, and more specifically in the context of intergroup conflicts. In general, many interventions were conducted in laboratory conditions and or in relatively benign settings (e.g., contact on college campuses), making their real-world efficacy questionable (Paluck & Green, 2009). This challenge is even more accentuated in the context of violent protracted conflicts or in post-conflict situations where the setting is more demanding and openness and receptivity for learning about the other is much more limited (Ben-Ari, 2004; Hewstone et al., 2014). Second, with few exceptions (e.g., Beelmann, Saur, Ziegler, Diener, & Noack, 2010; Malhotra & Liyanage, 2005), the efficacy of most PRPIA interventions has not been longitudinally tested. Hence, there is quite limited evidence to demonstrate whether these interventions have long-lasting effects (Aboud et al., 2012; Beelmann & Heinemann, 2014; Paluck & Green, 2009). Third, participants in many of these interventions were children who volunteered for these programs, and as such, cannot be regarded as typical or representative of their groups. Consequently, the positive results that have been reported with some of these programs may not be generalized to their respective groups (Hewstone et al., 2014). Finally, most prejudice-reduction interventions are narrowly focused, addressing a limited set of factors that can potentially inhibit prejudice formation and/or promote positive intergroup attitudes, and therefore, are less efficacious (Beelmann & Heinemann, 2014; Killen et al., 2011; McKown, 2005). As noted, prejudice reduction programs based on the contact model have been more effective in changing emotional indicators than their cognitive counterparts (Tropp & Pettigrew, 2005). Given that cognitive and behavioral aspects of prejudice are important in the process of stereotyping and discrimination, prejudice reduction models should certainly target these aspects as well.

Regarding specific limitations that may negatively impact the efficacy of PRPIA interventions conducted in a continuous and ongoing violent conflict, like the Palestinian–Israeli conflict, the major concerns have to do with the actual sociopolitical reality on the ground and the fact that these programs may indirectly maintain the political status quo (Maoz, 2011). The frequent cycles of violence escalation may have hindered the efficacy of any PRPIA program, as it is likely to raise individual and collective intergroup anxiety (Stephan & Stephan, 1996). Furthermore, in a political conflict where there is power asymmetry between the rival groups, like that of Jewish and Palestinian, there is a risk that a PRPIA program might be perceived as counterproductive to the effort to bring social change, and therefore, could be rejected by the minority group (Bekerman, 2007). These shortcomings point to the need for developing “real-world,” multi-theoretical PRPIA programs that target the different facets of prejudice, have long lasting impact, and are specifically tailored to children in conflict zones. The current investigation takes an important step in this direction.

1.4. The Israeli–Palestinian context

The Israeli population comprised two major ethnic groups, highly distinguished by language, religion and culture; the Jewish majority and Arab minority, with the former comprising 80% and the latter comprising 20% of the total Israeli population. The Arab population refers to those Palestinians who survived the 1948 war, which led to the establishment of the state of Israel, and later became Israeli citizens.

Since the establishment of the state of Israel after the 1948 War (an event referred to as the Nakba—the catastrophe—by most Palestinians), the relationship between Israeli–Jews and Israeli–Palestinians has experienced ups and downs (Kelman, 1998). The delicate relations between Israeli–Palestinians and Jews are strongly influenced by the Israeli–Palestinian conflict. During the summer of 2014, a serious escalation occurred in the frames of the Gaza–Israel conflict, which led to an armed confrontation that lasted for almost two months, the longest armed escalation for decades. These violent events resulted in over two thousand Palestinian casualties and many more injured, and tens of Israeli losses and hundreds injured. The violent and grieving events between Gaza and Israel were followed by heightened hostility and violence between the Israeli Palestinians and Jews (Foier, 2014).
Both Jews and Arabs hold negative views and stereotypes of each other. Jews tend to perceive Israeli–Arabs as violent, cruel, untrustworthy, primitive, or dirty (e.g., Bar-Tal, 1996; Cohen, 1985; Mahameed & Gutmann, 1983), and unfortunately, these negative stereotypes are formed in an early age (Bar-Tal, 2005; Brennick et al., 2010; Slone et al., 2000). Israeli–Palestinian stereotyping toward Israeli–Jews has received less attention but the few available studies (e.g., Brennick et al., 2007, 2010; Smooha, 1987) have shown that prejudicial attitudes of Arabs toward Jews are prevalent as well. For example, Smooha (1987) found that a majority of Israeli–Palestinians regarded Israeli–Jews as mindless of self-respect and family honor, exploitative, untrustworthy and racist.

These stereotyping tendencies may have a devastating effect on the democratic character of the Israeli state. Polls among Jewish population have shown their willingness to embrace highly unjust and discriminating attitudes against Israeli–Palestinians. For example, 40% believed Israeli–Palestinians should not have the right to vote, over 50% agreed that the State of Israel should encourage emigration of Palestinian citizens to other countries, and 59% considered Palestinian culture “primitive” (Wilson, 2006). Furthermore, a poll of Israeli–Jewish high school students found that 49.5% did not think Israeli–Palestinians were entitled to the same rights as Jews in Israel, and 56% thought they should not be elected to the Israeli parliament (Kashti, 2010). These alarming findings stress the desperate need for interventions to reduce the hostility between Israeli Jews and Palestinians destined to live together.

1.5. The current investigation

To address the main limitations of the PRPIA interventions, in a previous study (Berger et al., 2015), we described the development and evaluation of a comprehensive multi-theoretical prejudice-reduction program, the Class Exchange Program (CEP). Given that the positive impact of direct contact on prejudice reduction has been well established in several reviews (e.g., Aboud et al., 2012; Lemmer & Wagner, 2015; Paluck & Green, 2009; Pettigrew & Tropp, 2006), we decided that direct contact would be the CEP's center component. The second component of prejudice reduction in the CEP was based on the information model and consisted of curriculum material regarding promoting respect and accepting the “other” (Ministry of Education, 2013). The third and final component was influenced by the cognitive-developmental model and focused on cultivating empathy and promoting tolerance through training in compassion for self and others (Neff & Pommier, 2012; Welp & Brown, 2014).

Although the CEP has been found effective in reducing prejudicial attitudes between Israeli–Jewish and Israeli–Palestinian children (Berger et al., 2015), the face-to-face contact of the CEP was only applied for a short duration of time, had limited sessions of empathy and perspective-taking training, and its effects on prejudice measures were rather small. Further, and most importantly, the long-term efficacy of the CEP has not been established. To address these limitations, in the current investigation we developed an extended version of the CEP (ECEP). Specifically, we added six more interactive sessions (i.e., more face-to-face contact) to the previous six CEP's interactive sessions. To the previous sixteen preparatory in-school sessions of cultivating compassion, we added eight additional sessions with focus on empathy and perspective-taking training as this component has demonstrated promising effects in several studies (Stephan & Finlay, 1999; Turner & Brown, 2008).

Notably, the most important goal of this study was to evaluate the long-term beneficial effects of the program. Therefore, we measured the program’s outcomes at termination and 15 months later. Very few studies have assessed outcomes beyond the termination of the intervention program and even fewer have examined the sustainability of such effects after conflict escalation. We find these to be serious shortcomings of past work given that the true value of any PRPIA program should include its ability to permanently alter intergroup attitudes, and as such should have a long lasting effect on its participants. The unfortunate events between Israel and Gaza that occurred several months after the ECEP ended gave us the opportunity to examine the program’s efficacy in spite of the significant escalation in this protracted intergroup conflict.

In the current study, prejudicial attitudes were assessed by four variables representing all facets of the phenomenon: stereotyping (i.e., the cognitive component), negative feelings (i.e., the affective component), discriminatory tendencies (i.e., negative behavioral attitudes component), and readiness for social contact with children from the other group (i.e., positive behavioral attitudes component). The program’s outcomes were measured at three time points: a week before, immediately after, and 15 months beyond termination of the program. We hypothesized that the ECEP would reduce prejudicial attitudes between Israeli Jewish and Israeli Palestinian children. More specifically, we hypothesized that the ECEP would decrease stereotyping, negative feelings and discriminatory tendencies toward the other, and increase readiness for social contact with the other upon termination of the program. Additionally, we hypothesized that the effects of the ECEP would also generalize to an ethnic group (i.e., Ethiopians) with whom Israeli Palestinians and Israeli Jews did not have any contact. Finally, we expected the ECEP to retain its effect, at least to some extent, a year after the program’s termination.

2. Method

2.1. Setting and participants

The ECEP took place in the Arab–Jewish Community Center (AJCC) in Jaffa. Jaffa is the southern oldest part of the Tel Aviv-Yafo municipality, one of the few mixed cities in Israel today, with a total population of 55,000 people; 20,000 Palestinians and 35,000 Jews. Though the two populations are residing within the same town, they are quite segregated in their own communities. Jewish and Palestinian children, for the most part, attend different schools though both groups should attend state public schools under the Israel ministry of Education. Public schools in the Jewish sector teach in Hebrew and offer in addition to the regular
curriculum Jewish history, religion and culture whereas public schools in the Palestinian sector teach in Arabic and offer a curriculum that emphasizes Arab history, religion and culture.

In recent years, tension between the Palestinian and Jewish population of Jaffa has been growing considerably, threatening to crack the fragile coexistence between the two ethnic groups. The growing resentment on both sides is further fueled by a lack of familiarity of the other and the potentially volatile situation is maintained in the absence of interpersonal encounters. This is the backdrop upon which the department of education in the municipality invited the AJCC to develop a program that would diffuse tension as well as create a cultural partnership between Palestinian and Jews school students in Jaffa.

The ECEP was implemented from September 2012 to June 2013 and followed 15 months after the program was terminated. During the implementation of the program there was a significant escalation of violence between Palestinians and Israelis on Gaza Strip, which began on November 14, 2012. Furthermore, throughout the nine months of the program there were intermittent violent altercations between the two sides around the Gaza Strip area, which further impacted the relationship between Palestinians and Jews in Israel. A month after this war ended, the follow-up assessment took place with our participants. Thus, the program and its evaluation took place under conditions that tested our aims.

The study was conducted in collaboration with the Tel Aviv–Jaffa’s department of education whose ethical committee approved the study. The program was first introduced to the principals of all 36 Palestinian and Jewish elementary schools in the Tel Aviv–Jaffa area. Because most schools were already committed to other projects in that year, they were unable to participate in the program, though many of them expressed sincere interest in it. Four schools eventually participated in the program—two Palestinian and two Jewish schools with similar socio-economic backgrounds. Again, despite the fact that Palestinian and Jewish communities in Tel Aviv–Jaffa live in proximity, the two communities in general, and the schools in particular, are segregated. Hence, children of the two ethnic groups rarely interact with each other.

We decided to implement the program with 3rd and 4th grade students as a recent meta-analysis (Raabe & Beelmann, 2011) suggested that children at these ages are potentially amenable to prejudice reduction. Two classes from each school were randomly assigned (through coin tossing) to either an intervention group (ECEP program) or a wait-listed control group (KTH program; see description later). Differences between the two groups were therefore not expected. It should be added that though all the KTH classes were supposed to receive the ECEP intervention in 2015, only two of them did. The schools of the two other classes participated in a new program developed by the Israeli ministry of education.

Of the 105 3rd grade students in the four schools, 96 (90.63%) participated in the study either in the ECEP (n = 49) or in the KTH program (n = 47). The remaining nine 3rd grade students (9.63%) did not complete the questionnaires or the program. As for the 4th grade students, from the 244 who were in the four schools, 226 (92.04%) participated in the study either in the ECEP (n = 112) or in the KTH program (n = 114). The remaining 18 students (7.96%) dropped for not completing the questionnaires or the program. Analyses revealed that no significant differences at baseline between those who completed the study and those who dropped out were observed.

The teachers presented the program to the students’ parents and enlisted their support for it. With the exception of three parents (one because of relocation and two for ideological reasons), all parents whose children were assigned to the experimental group consented to their children’s participation. These three students, as well as those who dropped from the program at one point, were offered the options of participating in volunteer work at school or joining sport/art classes.

Hence, from a total poll of 349 students in the four schools chosen to participate in the study, 322 were included in the final analyses, and 27 dropped out at the various stages of the recruitment and implementation of the study. Of the 322 students included in the analyses, 161 were part of the intervention group and 161 were part of the control group. Of the 161 participants in the experimental group, 84 (52.2%) were females and the remainder were males. Eighty-one (50.3%) were Israeli Palestinians and the rest were Israeli Jews. Of the 161 participants in the control group, 75 (46.6%) were males and the remainder were females. Seventy-nine (49.1%) were Israeli Jews and the rest were Israeli Palestinians. Fig. 1 displays the students’ flow through the two conditions of the study.

2.2. Procedure for implementation of the programs

Following the approval from the Palestinian and Jewish principals, the program’s rationale was separately introduced to the eight homeroom teachers whose classes were assigned to the experimental condition and to the eight homeroom teachers whose classes were assigned to the control condition. Teachers were told that the study aimed to examine how the program (the ECEP or KTH) will impact the way in which their students relate to the “other.” The experimental homeroom teachers were instructed regarding their role: 1) in preparing the students in school for the ECEP, 2) during the program meetings, and 3) in the debriefing sessions in school following each meeting. The teachers of both groups were instructed to use the KTH parts of the program that were relevant to developing tolerance and acceptance of the “other.” Experimental group teachers were trained on how to foster their students’ empathic and perspective-taking skills, while the control teachers continued with the regular KTH curriculum. Both groups of teachers were supervised throughout the programs by the study’s first author.

The teachers presented the program to the students’ parents and enlisted their support for it. The parents were also informed that they are expected to accompany the students during one of the ECEP meetings and serve as observers. With few exceptions, most parents whose children were assigned to the experimental group consented to their children’s participation and agreed to attend one ECEP meeting.

The experimental group’s teachers attended the ECEP meetings, but did not actively participate in or facilitate these meetings. Israeli–Palestinian and Israeli–Jewish facilitators, recruited based on their experience in working with multicultural youth groups
and their knowledge on working with expressive arts, conducted the ECEP meetings. While the first author designed the general content and meetings’ structure, the specific exercises and processes were collectively built through a group process and written as a manual. Prior to the program’s implementation, the facilitators were trained by the first author to ensure adherence to the program. The training course for these facilitators was composed of two six-hour intensive sessions. The first session aimed to accomplish two goals: 1) educate the facilitators on how stereotypes and prejudices are formed and maintained, and 2) present the rationale of the ECEP program with specific focus on contact theory. During the second session, the facilitators constructed specific art activities under the first author’s supervision. These art activities are described below.

2.3. The intervention: extended class exchange program (ECEP)

The ECEP consisted of twelve four-hour bi-monthly meetings. Before the first meeting, the students were divided by the teachers into three mixed groups of about 15–18 Israeli–Palestinian and Israeli–Jewish students. In each four-hour session, the three mixed groups attended three one-hour artistic activities (social/art activity, music activity and movement activity), with a half-hour break after the first activity. In the social/art activity, the students engaged in either social games or visual art activities. In the music activity, the students focused on playing instruments, performing rhythmic activities or writing songs. Finally, in the movement activity, the students engaged in dancing and in body-oriented games (for more information, see Berger et al., 2015). The beginning and end of each meeting were attended by all students, homeroom teachers, facilitators, and invited Arab and Jewish parents. The beginning and the end of each meeting included a short mindfulness practice. Each activity group contained a warm-up exercise and experiential work related to the theme of the session, followed by a group discussion and a closure exercise.

Fig. 1. Student flow through the intervention and assessment protocol.
The ECEP intervention attempted to familiarize the students with each other by highlighting the differences and similarities between them. It adopted an ecological perspective, focusing on a variety of systemic levels including: the individual, the family, the peer group, the school environment, the community, and the culture (Belsky, 1980). For each of these systemic levels we designed two thematic sessions based on our previous CEP’s five themes: me and myself, me and my peers, me and my school, me and my family, me and my community (Berger et al., 2015). We also added a sixth theme—“me and my new friends”—where we focused on strengthening the relationship among the students (see Box 1 for more details).

Additionally, the intervention classes received twenty-four 45-min bi-monthly sessions throughout the academic year that were devoted to prepare the students for the ECEP meetings as well as to deliver parts of the KTH program (see the subsection “control program” below). For the ECEP program, we asked the classroom teachers to deliver the modules of sharing and participating, promoting respect and accepting the “other.” Additionally, they delivered eight sessions designed for developing perspective-taking and empathy as well as for compassion for self and others (see Box 2 for more details).

Conditions for optimal intergroup contact were met in the ECEP meetings. First, the Palestinian and Jewish students were treated as equals (similar number of Israeli–Palestinian and Jewish students, both languages were used interchangeably, Israeli–Palestinian and Jewish facilitators were present in all activities). Second, the activities of the ECEP meetings involved face-to-face interactions where the students shared the goals of achieving the tasks designed by the program facilitators. Third, the program promoted intergroup cooperation; in each meeting, cross-group tasks were designed to promote interdependency between the participants avoiding intergroup competitive activities. Fourth, the program was sponsored and supported by the municipality’s education department, the school administration, and the parents. Finally, the facilitators and the homeroom teachers also attempted to foster contact between the students at the end of the program by encouraging them to exchange phones and electronic addresses.

2.4. The control program: the key to the heart (KTH)

The KTH is a social-emotional learning program that is part of the Israeli national curriculum for all elementary schools (Israeli Ministry of Education, 2013). The program aims to cultivate students’ civic values and to develop social-emotional skills. It is composed of monthly thematic modules, which are delivered by the homeroom teachers on a weekly basis during the social study

Box 1
General contents – extended class exchange intervention (ECEP).

- Session 1. Getting started – Presenting an overview of the program and establishing the ground rules. Students engage in self-presentations focusing on the similarities between them.
- Session 2. Getting to better know each other – Students focus on the similarities as well as the differences between them. Attempt is made to establish mixed-groups’ identity & cohesion.
- Session 3. Me and I – Students explore strengths and weaknesses within themselves and other group members. They learn to accept these weaknesses by utilizing compassion-based strategies.
- Session 4. Me and my peers – Students present their friends and “foes” to the participants of the other group and together examine the differences and similarities between them.
- Session 5. Me and my peers – Students explore how they form opinions, stereotypes and prejudices about other children and examine the validity of these attributions.
- Session 6. Me and my school – Students present their schools and examine the similarities and differences between them. They then share what they like and dislike about their schools.
- Session 7. Me and my school – Students explore ways to improve their learning experience within the school system and to establish a more creative school environment.
- Session 8. Me and my family – Students present their families and share the nature of their relationships with family members.
- Session 9. Me and my family – Students explore the similarities and differences in family patterns, traditions and cultural practices. They learn to develop respect for cultural differences.
- Session 10. Me and my community – Students share the unique qualities of their two communities and teach the other community their cultural practices (music, dance or common habits).
- Session 11. Me and my community – Students explore ways to best integrate elements of the two communities and to create an ideal mixed ethnic community.
- Session 12. Me and my new friends – Students exchange gratitude letters and presents with each other. They end this session with multi-cultural celebration and mixed-group performances. They terminate this last session celebrating their cultural diversity with music and drama performances as well as with memory booklets.
classes. The modules include themes such as: sharing and participating, social and community involvement, conflict management, fostering responsibility and accountability, promoting respect, accepting the “other,” developing teamwork, and facilitating a safe and secure school atmosphere. It should be noted that the module of accepting the other touched upon the unique status of the Israeli–Palestinian minority and how this minority might be representing the “other” for Israeli–Jews. Yet the main focus of this module was on accepting the other in general.

For the purpose of the study, the control KTH intervention consisted of 24 bi-monthly sessions that lasted 45 min each, and were conducted by the homeroom teachers during a five-month period parallel to the ECEP intervention. As in the ECEP intervention, the control group teachers delivered the KTH modules of sharing and participating, promoting respect, and accepting the “other.” However, instead of the perspective-taking and the empathy training in the ECEP intervention, the teachers in the control group delivered additional two KTH modules, the fostering responsibility and accountability and conflict management.

2.5. Fidelity of the extended class exchange program (ECEP)

The group activities during the entire program (i.e., the 12 mixed group sessions and the twenty-four in-school homogenous sessions) were observed and rated by two graduate psychology students. By performing these fidelity assessments, we wanted to ensure that the program was applied as written in the manual, as well as to help modify the intervention if necessary and provide feedback during supervision. Facilitators were aware of the fidelity assessments. Ratings were performed on a 6-point scale ranging from 0 (not at all as stipulated in the manual) to 5 (exactly as stipulated in the manual). The two graduate students rated whether the (1) facilitators covered the intended topics; (2) facilitators followed the exercises; (3) group members were active during the session, and; (4) overall orientation of the course was upheld. The ratings of the first observer ranged from 3 to 4 (M = 3.5, SD = .57) on all assessed domains, while the ratings of the second observer on these domains were all 4. These ratings are above the cutoff (3), which we set to imply sufficient fidelity to the program manual. The results of the interrater analysis (Cohen’s Kappa = 0.82, p < 0.001) indicate high agreement between the two raters.

2.6. Measures and procedure for evaluation of the program

Four variables were utilized to measure prejudicial attitudes: stereotyping, negative feelings, discriminatory tendencies, and readiness for social contact. Participants were assessed a week before the program began, immediately after and 15 months later. University students trained to test each student individually in a quiet room in their school administered questionnaires in a written format. They were blind to the condition of the student. Each student completed the questionnaire in his/her native language (Jews in Hebrew, and Palestinians in Arabic). A bilingual Israeli–Palestinian graduate student translated the questionnaires, which were originally developed in Hebrew, into Arabic. To check the accuracy of the translation, another bilingual
Israeli–Palestinian graduate student conducted a back-translation from Arabic into Hebrew. No serious deviations were discovered between the original wordings and the back-translated version.

2.6.1. Stereotyping

To assess stereotyping of Arabs, Jews and Ethiopians, we used the “Stereotyping” measure developed by Kaminsky and Bar-Tal (1996). This measure has also been used in previous studies (Bar-Tal & Labin, 2001; Berger et al., 2015; Teichman, Bar-Tal, & Abdolrazeq, 2007). Ethiopians were included to test whether the intervention generalized towards groups with whom the students did not interact. Students were asked to rate eight bipolar traits (i.e., good–bad, sociable–unsociable, industrious–lazy, smart–stupid, clean–dirty, beautiful–ugly, pushy–unassuming, tempered–violent) for each of the three ethnic target groups on a 5-point scale ranging for example from “very smart” (0) to “very stupid” (4) and from “very beautiful” (0) to “very ugly” (4). Each student thus rated each of the target ethnic groups on eight scales. Higher scores indicated higher stereotyping of the other. Scores were then averaged across all questions for each of the three ethnic groups. Cronbach’s alpha of this scale ranged from .84 to .94 in previous studies (Berger et al., 2015; Teichman et al., 2007). In the current study, Cronbach’s α coefficients ranged from .85 to .91 for the Israeli–Jewish, Israeli–Palestinian and Israeli–Ethiopian scales, respectively, at pre-intervention, post-intervention, and follow-up.

2.6.2. Negative feelings

We measured the degree to which the students experience five different emotions (i.e., secure, relaxed, comfortable, anxious, threatened) toward members of the other ethnic groups by using the “Emotional Prejudice” scale developed by Teichman et al. (2007). Items were scored on 5-point Likert scale ranging from “do not feel at all” (0) to “feel to a very large degree” (4), with 3 reverse-scored items (i.e., secure, relaxed, comfortable). Higher scores on this scale indicated stronger negative emotions toward members of the other ethnic group. Cronbach’s alpha of this scale ranged from .75 to .84 in previous studies (Berger et al., 2015; Teichman et al., 2007). In this study, Cronbach’s coefficients for this scale were good (α = .81, .84, and .84 for the pre-intervention, post-intervention, and follow-up surveys, respectively).

2.6.3. Discriminatory tendencies

Discriminatory tendencies among children were assessed by a measure developed by Berger et al. (2015) who pilot-tested this measure prior to using it by administering it twice in a three-week interval among thirty elementary-school students. Results showed that this measure has good test re-test reliability (r = .78). It should be noted that we used the test–retest reliability method of demonstrating reliability for this measure (rather than internal consistencies as with other measures) because of the 1-item nature of the three scales composing this measure. Drawings of a street with nine houses set side by side were presented to participants in this study. Participants were told that they lived in the middle house (tagged as ‘my house’). Above each drawing, one of three photos was presented: of an Israeli Jewish child, an Israeli–Palestinian child, and an Ethiopian child. Each child was also identified by a name common to the specific ethnic group to ensure recognition of the ethnic background of the children in the photos. On each drawing, participants were asked to indicate the house in which they would like the child in the photograph to live. The number of houses from ‘my house’ to the house chosen for each of the three children was counted. Boys were presented with male images and girls with female images.

2.6.4. Readiness for social contact

To assess readiness for social contact, we used an instrument developed and implemented in previous studies (Bar-Tal & Labin, 2001; Berger et al., 2015; Teichman et al., 2007). Participants were instructed to indicate their willingness to perform five activities (i.e., meet with, play, study, invite to one’s house, be a guest in the other’s home) with members of the other ethnic group. The rating was performed on 5-point Likert scale ranging from “not at all” (0) to “to a very large degree” (4). Greater readiness to have social contact with members of the other ethnic group was indicated by higher scores on this scale. Cronbach’s alpha of this scale ranged from .87 to .93 in previous studies (Berger et al., 2015; Teichman et al., 2007). In the current study, Cronbach’s alphas for this scale were .88, .91, and .93 for the pre-intervention, post-intervention, and follow-up surveys, respectively.

2.7. Analyses

First, we assessed the existence of measurement equivalence for the multi-item dependent measures (i.e., readiness for social contact, negative feelings, negative stereotyping of the other, and Negative stereotyping of Ethiopians) across ethnic groups. Second, descriptive statistics for all the dependent variables at baseline (prior to the intervention) were calculated. Independent samples t-tests were performed to determine whether any differences existed at baseline between the experimental and control groups on all dependent measures. In addition, independent samples t-tests were conducted to compare between the two ethnic groups (Israeli–Palestinians and Jews) on all measured variables at baseline. These preliminary analyses were aimed at getting a general picture of prejudice levels displayed in the current sample prior to the intervention.

Third, to examine the intervention’s effect on prejudice levels over time, a repeated-measures MANOVA was conducted with all the dependent measures in the study. This analysis included time and measure as repeated variables and group (intervention or control) as a between-subjects variable. Since the study’s participants came from four different schools and two grade levels (3rd and 4th), school and grade were entered as fixed factors in the analysis and treated as covariates. We also intended to include class as a fixed variable, but preliminary analyses showed that this is unnecessary. A significant interaction of group ×
time × type of measure was followed up with separate repeated measures ANOVAs for each measure. The Repeated measures ANOVAs included the intervention as between-subjects factor and time as within-subjects factor, students' grade and school were entered as fixed factors. However, since the students' school and grade were not variables of interest in the study they were treated as covariates; accordingly, adjusted means for time and time × group were extracted. In addition, Intra-class Correlation Coefficients (ICC) were computed to estimate the between class variance for all the dependent measures. To assess the effect size of the intervention, partial eta squares were computed. Family-wise Bonferroni correction for multiple comparisons was implemented to avoid an elevated type I error for the repeated measures ANOVAs.

Fourth, we examined whether the intervention’s effectiveness was significantly different across both ethnic and gender groups. Finally, in order to explore the effect the Gaza war had on children’s prejudice tendencies regardless of the intervention, we conducted dependent samples t-tests comparing the outcome measures at termination of the program (T2) and 15 months later (after the war; T3) for the control group only.

3. Results

To assess the existence of measurement equivalence for the multi-item dependent measures (i.e., readiness for social contact, negative feelings about the other, negative stereotyping of the other, and negative stereotyping of Ethiopians) across the two ethnic groups, a measurement model using SEM was constructed for each measure.

At the first step the measurement models’ fit was assessed for the whole sample, thereafter the model fit was examined for each group separately. Results indicated a satisfying model fit for both groups (fit indexes are presented in Table 1). In the second step, factorial invariance was examined using a multigroup modeling, whereby a model with constrained intercepts and items loadings across the two groups was compared to an unconstrained model. This analysis showed a non-significant difference between the constrained and unconstrained models indicating factorial invariance for readiness for social contact, negative stereotyping of the other, and negative stereotyping of Ethiopians. The measure of negative feelings about the other was not found to be equivalent across groups.

To conclude, the test of the cross-groups measurement equivalence of the multi-item dependent measures revealed partial factorial invariant. Specifically, readiness for social contact, negative stereotyping of the other, and negative stereotyping of Ethiopians demonstrated factorial invariance, while negative feelings about the other were not equivalent across groups.

Table 2 displays descriptive statistics for all dependent measures before the intervention (at baseline) broken out for ethnicity. When comparing the two ethnic groups, no differences were found for levels of negative stereotyping and negative feelings about the other, discriminatory tendencies towards the other, and readiness for social contact with the other. However, Israeli-Palestinians scored significantly higher than Jews on discriminatory tendencies toward Ethiopians and on negative stereotyping of Ethiopians. In addition, independent-samples t-tests were conducted to determine whether there were any significant differences between the experimental and the control group before the intervention regarding all dependent measures. No such differences were found.

In the primary analysis we computed the Intra-class Correlation Coefficients (ICC) which estimate the between class variance. Results of the null model indicated that for all dependent measures an insignificant amount of the variance (0.1%-2%) was embedded in-between-classes. Therefore class was not included in the analysis.

No significant differences were found prior to the intervention between the experimental and control groups on all the dependent measures. Therefore no corrections for baseline means were made. Moreover, the study’s design included random participants’ assignment to groups and an equal number of participants were included in each group.

In order to assess the intervention’s effect on prejudice levels, a repeated measures MANOVA analysis including all the dependent measures was performed. Group was a between-group factor and school and class were entered as fixed factors treated as covariates. Results suggested an overall significant impact of the intervention (time × type measure × group; Wilk’s Lambda = .42; F = 40.00; df = 10, 292; p < .001). Thereafter, repeated measures ANOVAs were performed for each independent measure including the intervention as between-subjects factor, time as within-subjects factor and students’ grade and school were entered as fixed factor covariates. Table 3 displays adjusted means of time × group after accounting for school and grade variance.

Overall, the results indicate that the intervention was effective in reducing negative stereotyping, negative feelings and discriminatory tendencies towards children from the other ethnic group, and increasing readiness for social contact with children from the other ethnic group. The effects sizes were medium (ranging from .26 to .48) according to Cohen’s (1992) categorization. Moreover, the intervention’s beneficial outcomes were generalized towards a third ethnic group (Ethiopians). Namely, the

Table 1

<table>
<thead>
<tr>
<th>Measure</th>
<th>Palestinians</th>
<th>Jews</th>
<th>df</th>
<th>Palestinians</th>
<th>Jews</th>
<th>CMIN/df</th>
<th>RMSEA</th>
<th>NFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readiness for social contact</td>
<td>10.02*</td>
<td>4.72</td>
<td>3</td>
<td>3.34</td>
<td>1.57</td>
<td></td>
<td>.12</td>
<td>.06</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.98</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.99</td>
</tr>
<tr>
<td>Negative feelings about the other</td>
<td>2.91</td>
<td>3.46</td>
<td>3</td>
<td>.97</td>
<td>1.15</td>
<td></td>
<td>.00</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.99</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.91</td>
</tr>
<tr>
<td>Negative stereotyping of the other</td>
<td>12.46</td>
<td>27.72</td>
<td>18</td>
<td>.69</td>
<td>1.54</td>
<td></td>
<td>.00</td>
<td>.06</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.93</td>
</tr>
<tr>
<td>Negative stereotyping of Ethiopians</td>
<td>21.26</td>
<td>44.71</td>
<td>20</td>
<td>1.06</td>
<td>2.23</td>
<td></td>
<td>.02</td>
<td>.09</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.93</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.92</td>
</tr>
</tbody>
</table>

Note. *p < .05 ** p < .01.
The experimental group showed a decrease of negative stereotyping and discriminatory tendencies towards Ethiopian children (Eta square = .36 and .17, respectively), yet the effect sizes were smaller. In short, the ECEP accounted for significant changes in all dependent measures immediately after the intervention.

Furthermore, these effects were sustainable to a varying degree 15 months later. Figs. 2 and 3 show this pattern of results for negative stereotyping of the other and negative feelings toward the other, respectively. A similar pattern of results was observed for the other dependent variables. The results indicate that the program was most effective in reducing negative feelings, negative stereotyping and increasing readiness for social contact, whereas it was least effective in reducing discriminatory tendencies. In addition, the intervention program was found to have a generalized effect by reducing prejudice levels towards additional ethnic groups (Ethiopians in the current case), although this effect was small.

Further analyses were conducted to determine whether the intervention’s effectiveness was significantly different across ethnic, gender, and grade groups. Results showed that the intervention’s effectiveness was not significantly different across both genders. However, as Table 4 indicates, girls differed from boys on several dependent measures at baseline. Specifically, compared to boys, girls showed significantly higher readiness for social contact, lower negative stereotyping as well as lower discriminatory tendencies towards the other ethnic group. These gaps between girls and boys were sustained throughout the three evaluations.

As for ethnicity, overall the intervention’s effectiveness was not significantly different across both ethnic groups. Nonetheless, a significant interaction between ethnicity and time was found for discriminatory tendencies. Specifically, compared to Israeli–Palestinians, Jewish participants that were included in the ECEP showed greater decrease of discriminatory tendencies immediately upon termination of the program (Time × Ethnicity; Pillai’s Trace = .05; F = 4.03, df = 1148; p = .02). However, this gap was annulled 15 months later at the follow-up evaluation which revealed no significant differences between the two ethnic experimental groups regarding their discriminatory tendencies. Furthermore, we examined whether the student’s grade (3rd or 4th) made a difference in the ECEP’s impact. Results showed that the intervention’s effectiveness was not significantly different across both grades.

### Table 2
Descriptive statistics for all dependent measures at baseline for each ethnic group.

<table>
<thead>
<tr>
<th>Measures</th>
<th>Palestinians (n = 160)</th>
<th>Jews (n = 162)</th>
<th>Significant differences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Readiness for social contact</td>
<td>1.37</td>
<td>.94</td>
<td>1.20</td>
</tr>
<tr>
<td>Negative feelings about the other</td>
<td>1.60</td>
<td>.83</td>
<td>1.79</td>
</tr>
<tr>
<td>Discriminatory tendencies toward the other</td>
<td>1.80</td>
<td>1.20</td>
<td>1.90</td>
</tr>
<tr>
<td>Negative stereotyping of the other</td>
<td>1.81</td>
<td>.79</td>
<td>1.93</td>
</tr>
<tr>
<td>Discriminatory tendencies toward Ethiopians</td>
<td>2.42</td>
<td>.89</td>
<td>1.86</td>
</tr>
<tr>
<td>Negative stereotyping of Ethiopians</td>
<td>2.13</td>
<td>.87</td>
<td>1.89</td>
</tr>
</tbody>
</table>

Note. *p < .05 ** p < .01 *** p < .001.

### Table 3
The results for the separate repeated measures ANOVAs.

<table>
<thead>
<tr>
<th>Measures</th>
<th>T1 – Before</th>
<th>T2 – After</th>
<th>T3 Follow-up</th>
<th>Main effect for time</th>
<th>Interaction time × group</th>
<th>ES</th>
<th>Partial ( \eta^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>F(2309)</td>
<td>F(2309)</td>
<td></td>
</tr>
<tr>
<td>Readiness for social contact (0–4)</td>
<td>1.28 a</td>
<td>.91</td>
<td>1.95 a</td>
<td>.90</td>
<td>1.91 a</td>
<td>.84</td>
<td>90.11***</td>
</tr>
<tr>
<td>Control</td>
<td>1.28 a</td>
<td>.92</td>
<td>1.29 a</td>
<td>.90</td>
<td>.77 a</td>
<td>.62</td>
<td></td>
</tr>
<tr>
<td>Negative feelings about the other (0–4)</td>
<td>1.70 a</td>
<td>.93</td>
<td>1.03 a</td>
<td>.72</td>
<td>1.20 a</td>
<td>.74</td>
<td>179.55***</td>
</tr>
<tr>
<td>Control</td>
<td>1.70 a</td>
<td>.89</td>
<td>1.66 a</td>
<td>.89</td>
<td>2.71 a</td>
<td>.74</td>
<td></td>
</tr>
<tr>
<td>Discriminatory tendencies toward the other (0–4)</td>
<td>1.78 a</td>
<td>1.10</td>
<td>1.04 a</td>
<td>.92</td>
<td>2.17 a</td>
<td>.94</td>
<td>502.36***</td>
</tr>
<tr>
<td>Control</td>
<td>1.94 a</td>
<td>1.08</td>
<td>1.88 a</td>
<td>1.09</td>
<td>3.55 a</td>
<td>.76</td>
<td></td>
</tr>
<tr>
<td>Negative stereotyping of the other (0–4)</td>
<td>1.82 a</td>
<td>.80</td>
<td>1.19 a</td>
<td>.65</td>
<td>1.27 a</td>
<td>.49</td>
<td>124.30***</td>
</tr>
<tr>
<td>Control</td>
<td>1.93 a</td>
<td>.74</td>
<td>1.86 a</td>
<td>.72</td>
<td>2.33 a</td>
<td>.50</td>
<td></td>
</tr>
<tr>
<td>Discriminatory tendencies toward Ethiopians (0–4)</td>
<td>2.14 a</td>
<td>1.08</td>
<td>1.74 a</td>
<td>1.03</td>
<td>2.54 a</td>
<td>1.05</td>
<td>366.97***</td>
</tr>
<tr>
<td>Control</td>
<td>2.16 a</td>
<td>1.00</td>
<td>2.15 a</td>
<td>1.00</td>
<td>3.21 a</td>
<td>1.03</td>
<td></td>
</tr>
<tr>
<td>Negative stereotyping of Ethiopians (0–4)</td>
<td>1.98 a</td>
<td>.79</td>
<td>1.61 a</td>
<td>.65</td>
<td>1.47 a</td>
<td>.63</td>
<td>62.38***</td>
</tr>
<tr>
<td>Control</td>
<td>2.05 a</td>
<td>.70</td>
<td>2.07 a</td>
<td>.68</td>
<td>2.08 a</td>
<td>.65</td>
<td></td>
</tr>
</tbody>
</table>

Note. *p < .05 ** p < .01 *** p < .001.

Note. a Adjusted means are presented, after being modified for school and grade effects.
To explore the effect the Gaza war had on children’s prejudice tendencies, a comparison of prejudice levels at termination of the program (T2) and after the war (T3) among members of the control group showed a major increase in discriminatory tendencies (t160 = −21.19, p < .001), negative stereotyping (t160 = −11.32, p < .001), negative feelings about the other (t160 = −15, p < .001) and discriminatory tendencies towards Ethiopians (t160 = −22.24, p < .001), in addition to a decrease in readiness for social contact (t160 = 9.78, p < .001). No changes occurred in the levels of negative stereotyping of Ethiopians. These overall results provide a strong indication of significant increase of prejudice levels among children following the Gaza war.

4. Discussion

Four main findings emerged from the current investigation. First, and most fundamentally, children who were exposed to the ECEP intervention reduced their stereotypic views, negative feelings and discriminatory tendencies towards members of the other ethnic group, as well as increased their willingness to have social contact with these members. In this regard, the intervention’s effectiveness was not significantly different across gender, ethnic (Israeli Jews and Israeli Palestinians), and grade (3rd and 4th) groups. These beneficial effects of the ECEP are similar to those found by Berger et al. (2015), who used a more restricted version of the program.

The finding that the ECEP was able to make significant changes in all facets of prejudice (i.e., emotional, cognitive, behavioral tendencies) is notable given that the bulk of previous programs (especially those based on the contact model) was relatively effective on changing emotional indicators of prejudice but less effective in changing the other aspects (Tropp & Pettigrew, 2005). We believe that this is the result of the multi-theoretical, multi-component nature of the ECEP.

Second, the intervention’s effects on all dependent measures were medium in size, yet larger than the average effect sizes found in other contact studies (Pettigrew & Tropp, 2008). This finding is particularly significant given that the study was conducted during a violent protracted conflict (Al-Ramiah & Hewstone, 2013). Further, the effect sizes found in this investigation are also significantly larger than those obtained in our previous study (Berger et al., 2015). Hence, it seems that the decision to apply the intervention for an extended period of time as well as to add the element of empathy-promoting and perspective-taking training to the intervention has led to the intensification of intervention’s overall positive impact. Interestingly, although we are unable to ascertain in this study the relative contribution of each of the three components to the intervention, informal interviews of the experimental homeroom teachers conducted a month after the intervention suggested that the experimental students from both ethnic groups developed more frequent contact following the intervention (i.e., via electronic mail and social media) relative to those who participated in our previous study. Therefore, it is likely that the extended time allowed the students to form more intimate contacts, which may have led to prejudice reduction (Davies, Tropp, Aron, Pettigrew, & Wright, 2011; Pettigrew, 1998).

Third, children who participated in the ECEP reduced their general negative attitudes towards members of a third ethnic group (Ethiopians) that none of its members participated in the study. Thus, the intervention seems to have a generalized effect toward
group and individual approach may improve relationships between youth whose ethnic groups have been involved in an intractable long-term violent conflict. More practically, given that evidence for its effectiveness was replicated and maintained over time, the ECEP could be a relevant intervention for reducing stereotypes, prejudices, and discriminatory tendencies among youth who live in areas affected by war, conflict and ethnic tension. Our findings also suggest that it is particularly important to apply such a program with relatively young children (i.e., elementary school students) as it may have a significant impact on the development of their intergroup attitudes (Beelmann & Heinemann, 2014; Paluck & Green, 2009; Raabe & Beelmann, 2011). Because children who live in a conflict zone usually have no contact with children who belong to their adversaries, they may be exclusively exposed to stereotype-consistent information and their attitudes toward them may be ossified (Bar-Tal & Teichman, 2005; Bigler & Liben, 2006).

However, since direct contact is often impossible in areas where there is violent conflict between ethnic groups or where members of the out-group are physically not present, extended contact, para-contact or virtual contact may be the only viable alternative (Andrighetto et al., 2012; Beelmann et al., 2010; Eller et al., 2011). Research examining the efficacy of a program...
combining one of these indirect contact modalities with our curriculum of promoting tolerance and acceptance of the “other” and with empathy and perspective-taking training is needed.

Based on our findings, we believe that a multi-component intervention incorporating ongoing contact under optimal conditions with curriculum of promoting tolerance and acceptance of the “other” and training in empathy and perspective taking would be beneficial for educators who are attempting to reduce stereotyping, prejudices and discriminatory attitudes toward outgroup members on the basis of race, gender, sexual orientation as well as other circumstances. Thus, school desegregation that focuses exclusively on contact and cooperation between students would not be as effective as a school program that also provides students with the opportunity to improve their empathy and tolerance toward the other. Indeed, analysis of school desegregation suggested that contact alone is not a sufficient condition for positive effects (Schofield & Haussmann, 2004).

Furthermore, because an active trainer who can constitute a role model for the students is an important factor in promoting intergroup attitudes, it is recommended that homeroom teachers, with whom the students have close relationships, administer the program within the school setting. Finally, given the fact that there are strong relationships between parent and child intergroup attitudes (Degner & Dalege, 2013), eliciting parental support and involvement, like we did in our program, can be beneficial.

4.2. Limitations of the study

Though very promising, the study’s findings should be considered with caution and interpreted in light of the following limitations. First, as aforementioned, the design of the current study is unable to pinpoint which of the ECEP’s three major components account for the attitudinal changes found among children. Second, the current study utilized a relatively small sample, which was chosen in a non-random manner, and the intervention was conducted at four schools and one city. Hence, the findings may not be generalizable to other settings. Third, to assess the intervention’s outcomes, the study utilized a survey format and its findings were based on self-report data. Although the instruments used have good psychometric properties, self-report measures can be subject to bias. It is therefore necessary to supplement the self-administered questionnaires with behavioral observations, which may be more accurate and less susceptible to bias. Fourth, though we attempted to create equal status for both groups within the contact scenario, there was no assessment as to whether or not participants perceived their status to be equal. It could be that the inequality experienced by Israeli–Palestinians outside of the contact setting was carried out with them to this setting. Fifth, no data were collected from teachers in terms of their feelings of comfort and self-efficacy in delivering the program. Sixth, we assumed, based on our knowledge, comparability for SES across schools and lack of contact outside schools, but no data was formally collected to support these assumptions. Finally, based on the study’s findings, it cannot be determined whether the attitudinal changes manifested by participants led to changes in actual behavior. Future research should fill this gap.

In sum, the study’s longitudinal findings provide strong support for the efficacy of the ECEP in causing long lasting attitudinal changes among Israeli Jewish and Israeli Palestinian elementary-school students. Its multi-theoretical basis, and the war-context in which it proved its utility, makes the ECEP potentially applicable to other areas in the world, especially those that are characterized by ethnic tension and violent conflicts.

Acknowledgment

The authors would like to express their gratitude to the director of the Arab-Jewish community center at Tel Aviv–Jaffa, Mr. Ibrahim Abu Shindi, the program’s facilitators and the participating schools.

References
