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Evaluating the Impact of a Cross-Group Friendship Intervention on Early Adolescents

By

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Abstract

Evaluating the Impact of a Cross-Group Friendship Intervention on Early Adolescents

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The rapidly changing ethnic composition of the United States has resulted in a heightened need to create inclusive environments within schools. Research suggests that intergroup contact, specifically cross-group friendships, can positively impact students in diverse school contexts. Cross-group friendships have been associated with less peer victimization, better leadership skills, and heightened levels of psychosocial safety among youth. In this study, an existing adult friendship intervention (the Fast Friends Task) was adapted for adolescents and implemented in the school context. The effects of participation in the intervention on interpersonal closeness, ethnocultural empathy, and outgroup attitudes were examined. Middle school participants (N = 139) were paired with same-sex partners from different ethnic backgrounds and assigned to the control group or intervention group. Data were collected through pre- and post-surveys. Research questions were (a) does the adapted version of the Fast Friends Task generate interpersonal closeness, (b) does participation in the adapted Fast Friends Task increase empathy, and is empathy a mediator of the relationship between interpersonal closeness and outgroup attitudes, and (c) does participation in the adapted Fast Friends Task improve outgroup attitudes and increase early adolescents' desire to interact with outgroup members? Results of a series of two-way mixed level analyses of variance indicated interactions between intervention and time on interpersonal closeness and desire to interact with outgroup members. The intervention did not result in changes in ethnocultural empathy, thoughts or warmth towards the outgroup. Implications and limitations of the study are discussed.

Keywords: adolescence, cross-group friendship, intergroup contact, prejudice reduction

Evaluating the Impact of a Cross-Group Friendship Intervention on Early Adolescents

The United States is currently undergoing drastic demographic shifts. The United States Census Bureau (2015) predicts that by 2060, the population of the United States will be majority non-White. As the population changes, schools will become more and more diverse and will need to adapt to serve their students. Currently, in California 53.25% of students are Hispanic or Latino. Only a quarter of California's students are White (California Department of Education, 2015). Because of the changing demographics of the country, educators are becoming more aware of the impact of race-based discrimination, bullying, and prejudice within the school context. In fact, race is one of the reasons that is most often reported for bullying in children. In a survey of 2,614 students who were victimized regularly (2 times a month or more), 16% of students reported that the cause of their mistreatment was their race. Of students who cited race as the primary cause of their mistreatment, 46% were African American, 40% were Asian-American, and 7% were European American (Davis & Nixon, 2010).

Harassment based on race has serious implications. Race-based bullying is more strongly associated with negative health outcomes, including substance abuse and risky behavior, than general bullying. Additionally, victimization based on race is linked with higher levels of truancy and lower grades in the short-term (Russell, Sinclair, Poteat, & Koenig, 2012) and higher blood pressure, hypertension, and more pregnancy complications in the long-term (Paradies, 2006). It is likely that prejudice is the underlying cause of much of the race-based bullying and harassment experienced by minority students. Considering the fact that schools are likely to become increasingly diverse over the coming years (U.S. Census Bureau, 2015), the development of interventions to reduce prejudice is imperative to ensuring the well-being of students.

Intergroup contact is one way to reduce prejudice and to positively transform social interactions between diverse youth. Intergroup contact refers to face-to-face interactions between members of different groups (Allport, 1954). Intergroup contact has been linked to significant prejudice reduction in many studies (Pettigrew & Tropp, 2006). Additionally, intergroup contact may be linked with lower levels of peer victimization. In a study conducted by the United States Department of Education (2015), the percentage of students who reported being bullied was lower in schools that had more diverse ethnic compositions. Specifically, in schools with less than 5% non-White students, 25% of students reported being bullied. However, in schools with 50% or more non-White students, 20% of students reported being bullied.

One sequitur of intergroup contact, cross-group friendship, is especially effective in reducing prejudice among participants (Davies, Tropp, Aron, Pettigrew, & Wright, 2011). Cross-group friendships are defined as meaningful relationships with people from other backgrounds (Turner & Cameron, 2016). Cross-group friendships have been linked to several positive outcomes, including less peer victimization and better leadership skills (Kawabata & Crick, 2005). Students with more cross-group friendships feel less vulnerable at school and report higher levels of psychosocial safety in diverse contexts (Graham, Munniksma, & Juvonen, 2014). In addition, students with cross-group friendships are more inclusive and have more positive intergroup attitudes than students with only same-group friendships (Turner & Cameron, 2016).

Given the benefits of cross-group friendship, researchers have designed and tested three different types of interventions to facilitate such relationships. *Imagined* contact interventions are those in which participants imagine positive interactions with outgroup members. *Extended*

contact interventions consist of students being reminded of ingroup members who have outgroup friends. *Direct* contact interventions are face-to-face interactions between outgroup members. Despite evidence suggesting positive effects of imagined, extended, and direct contact interventions in elementary school-aged children (Turner & Cameron, 2016), very few studies have explored their impact on early adolescents.

Adolescence is a time of heightened social sensitivity and attention to peer relationships. Without intervention, research suggests that students prefer relationships with individuals of their own ethnic background (Graham, Taylor, & Ho, 2009). In fact, in a study that calculated odds ratios of same- and cross-ethnic friendships, same-ethnic friendships were twice as likely to be endorsed by students than cross-ethnic friendships (Moody, 2001). In addition, adolescents' intergroup attitudes are likely dependent on their experiences and relationships (Turner & Cameron, 2016). Thus, an intervention in early adolescence will likely shape friendship choices throughout middle and high school.

In the current research, a cross-group friendship intervention for early adolescents is presented, as well as an empirical study examining the effectiveness of the intervention in a middle-school population. The intervention is a version of the Fast Friends Task, a protocol that was originally developed by Art Aron and colleagues (1997) to generate interpersonal closeness in adults. The task has been adapted to be developmentally appropriate for this age group.

Three research questions are addressed in this study. First, does the adapted version of the Fast Friends task generate interpersonal closeness? Second, does participation in the adapted Fast Friends Task increase empathy, and is empathy a mediator of the relationship between interpersonal closeness and outgroup attitudes? And third, does participation in the adapted Fast Friends Task improve outgroup attitudes and increase early adolescents' desire to interact with outgroup members? In the first section of the paper, I present the theoretical foundations of intergroup contact. I then review the current literature on cross-group friendships, discuss existing intergroup contact interventions, and present the case for early adolescence as a timely developmental period for intervention. I conclude the paper by discussing the results of the study that evaluated the impact of the intervention on early adolescents.

Theories of Intergroup Contact

Intergroup contact refers to interactions between members of distinct groups. The first, and most popular, theory of intergroup contact was Gordon Allport's (1954) contact hypothesis, presented in his seminal text, *The Nature of Prejudice*. Allport stated that prejudice reduction occurs when members of different social groups have positive social interactions with one another. He proposed four distinct conditions that optimize the interactions and make prejudice reduction more likely. The conditions necessary for optimal intergroup contact were as follows: (a) equal group status; (b) common goals; (c) intergroup cooperation; and (d) the support of law, institutions, or customs. Allport theorized that in the presence of these four conditions, people participating in intergroup contact would improve their attitudes towards members of the outgroup.

Alternative intergroup contact models. Several decades later, Allport's (1954) contact hypothesis is still the most pervasive theory of intergroup contact. However, others have used Allport's theory as a foundation, expanding upon it to further explore the relationship between intergroup contact and prejudice reduction. Other proposed theories of intergroup contact include a model of decategorization (Brewer & Miller, 1984), a dual-identity model (Gaertner, Mann, Murrell, & Dovidio, 1989), and an integrative theory (Brown & Hewstone, 2005;

Hewstone & Brown, 1986;). The following sections detail these alternative theories of intergroup contact.

The de-categorization model. In 1984, Brewer and Miller proposed a new contact model that argued for de-emphasizing group membership. They argued that contact situations should be structured in such a way that individuals do not think about social categories. Instead, people should focus on personalization, or getting to the know the specific individual with whom they are interacting. The goal was to differentiate among members of the outgroup through personal relationships, to the point where pre-existing stereotypes and prejudices no longer were meaningful for categorization. They believed that personal relationships with individual outgroup members weaken beliefs of outgroup homogeneity. Brewer and Miller integrated Allport's (1954) conditions into their model by stating that the four optimal conditions help reduce bias because they help to de-categorize individuals and emphasize personal interaction.

Evidence in favor of the de-categorization model includes findings suggesting that cross-group friendship is particularly effective in reducing prejudice (Davies et al., 2011) because of the personalization aspect of developing close relationships. In addition, Miller, Brewer, and Edwards (1985) evaluated their model by conducting a study in which participants worked on a cooperative task with an outgroup member. Participants in the person-focused condition, in which members were asked to concentrate on developing impressions of one another, demonstrated more positive attitudes towards their teammates than those in the task-focused condition, in which members were asked to concentrate on the task. In this experimental paradigm, the researchers argued that personalization facilitated the improved outgroup attitudes. However, critics of the Brewer-Miller model argue that it strips individuals of group identities that may be important to self-concept and self-esteem (Brown & Hewstone, 2005). The question of generalizability also remains; with the emphasis on the individual instead of on group salience, are people able to generalize positive beliefs and attitudes to other members of the group? As a result of these critiques and questions, few people have adopted the Brewer and Miller (1984) de-categorization model of intergroup contact.

The common ingroup identity model. A few years after Brewer and Miller (1984) proposed their theory, Gaertner, Mann, Murrell, and Dovidio (1989) proposed a different model of intergroup contact. In contrast to Brewer and Miller's desire for de-categorization, Gaertner et al. wanted to re-categorize group boundaries. They argued that intergroup contact situations should be designed in such a way that members of different groups develop a shared identity, so that previous biases and stereotypes were eliminated. By creating a common ingroup identity, participants generate positive associations for outgroup members and reduce prejudice. The authors of this model asserted that Allport's (1954) conditions facilitate prejudice reduction because participants create a superordinate cognitive representation during contact that replaces the separate cognitive representations that they previously held.

There is a large body of evidence in support of the common ingroup identity model. In these studies, artificial groups were often formed in order to create a superordinate identity for participants (Gaertner & Dovidio, 2000). The creation of a common ingroup identity facilitated prejudice reduction in many studies; however, evidence for generalization beyond the experimental situation is not conclusive (Gaertner & Dovidio, 2000). Although this model allows people to retain their group identity on an internal level, it also forces them to take on a different primary identity during the course of intergroup contact. Thus, although the common ingroup identity model was a step forward from the decategorization model, problems persisted and widespread adoption did not ensue.

Intergroup contact model. A third model of intergroup contact was proposed by Hewstone and Brown in 1986. This model was posed as a solution to the problem of generalizability that was encountered by authors of the other theories. The intergroup contact model focuses on the *typicality* of the ingroup and outgroup members participating in the interaction (Hewstone & Brown, 1986). Hewstone and Brown proposed the idea that if the people participating in intergroup contact were adequately representative of their group, the positive implications of contact would generalize to other situations. In order for Hewstone and Brown's hypothesis to hold, however, group membership must be made salient, either through psychological or structural methods. Essentially, participants function as group representatives, with the hope that outgroup members will later associate the positive effects of the interaction with other group members. In a later work, Brown and Hewstone (2005) cautioned against the notion that typicality *always* leads to prejudice reduction. Instead, the characteristics of the individuals, the context of the contact situation, and the current nature of intergroup contact must be taken into consideration.

Several studies produced evidence for the intergroup contact model. In the first study of this type, participants cooperated on a specific task with a member of the outgroup (Wilder, 1984). The typicality of the individual representing the outgroup and the behavior of that individual varied between the two conditions. Outgroup members either acted pleasant and supportive or harsh and critical. Results indicated that intergroup bias was reduced only in the pleasant condition in which the outgroup member was typical of the outgroup.

A more recent study (Van Oudenhoven, Groenewoud, & Hewstone, 1996) examined the effect of group salience on generalizability. In this study, Dutch students engaged in a cooperative task with a confederate who posed as a Turkish peer. In the first condition, introductions were made in which each participant's ethnicity was clearly referenced at the beginning of the interaction. In the second condition, these introductions were made half-way through the interaction. In the third condition, the control condition, no references to ethnicity were made at all. Although the Turkish peer was favorably rated by the Dutch participants in all three conditions, these positive feelings only generalized to all Turkish people in the salience conditions. Whereas the intergroup contact model has empirical evidence to support it, the authors themselves point out that many other factors (individual characteristics, social context, and current racial climate) must align for positive effects to occur.

Evidence for Intergroup Contact

As detailed in the previous section, Allport's (1954) contact hypothesis has undergone several different iterations over the years. Despite the alternative theories of intergroup contact, most researchers still use Allport's contact hypothesis as a foundation for intergroup contact research. In fact, a large body of empirical evidence exists in support of Allport's contact hypothesis. Pettigrew and Tropp (2006) conducted a large-scale meta-analysis that examined the relationship between intergroup contact and prejudice. They also explored the necessity of Allport's four optimal conditions for prejudice reduction. The meta-analysis included 515 individual studies, 713 independent samples, 1,383 non-independent tests, and 250,089 individuals from 38 countries. Pettigrew and Tropp's findings suggest that intergroup contact reduces prejudice. In fact, 94% of the samples in their analysis demonstrated an inverse relationship between intergroup contact and prejudice (mean r = -21). Additionally, results suggested that although Allport's four optimal conditions are not necessary for prejudice

reduction, they facilitate even greater prejudice reduction; the relationship was slightly stronger (r = -.28) in studies with conditions that met Allport's requirements.

Although Pettigrew and Tropp's (2006) meta-analysis points to the positive implications of intergroup contact, it is important to note that contact experiences and the ensuing effects can be different for majority and minority group members. The same authors conducted a meta-analysis to further explore these differences between members of minority and majority groups (Tropp & Pettigrew, 2005). In another large-scale study of 250,000 participants from 515 studies and 38 countries, Tropp and Pettigrew found the same relationship between intergroup contact and prejudice reduction. However, effect sizes were meaningfully larger (p < .01) for members of majority status group members (r = -.23*)* than for minority status group members (r = -.18*)*. Additionally, Allport's four optimal conditions predicted stronger contact-prejudice effects for majority status group members than for minority status group members. These results point to idea that minority and majority group members experience and process intergroup contact differently.

Although children, adolescents, and adults all benefit from intergroup contact experiences, the extent to which they do so varies. Tropp and Prenevost (2008) conducted a meta-analysis to better understand intergroup contact at different life stages. In order to conduct this study, they first categorized the participants of Pettigrew and Tropp's original (2006) meta-analysis by age (children, adolescents, college students, and adults), and then examined the difference in effect sizes. Findings suggest that intergroup contact among children, adolescents, and college students had similar prejudice reduction effects (r > .2 for all groups); however, effect sizes for the 46,553 college participants (r = .23*)* were significantly albeit modestly higher (p < .05) than effect sizes for the 97,468 adult participants (r = .20), suggesting that college students are a little more open to changing their views as a result of intergroup contact.

A recent meta-analysis specifically examined the results of interventions targeting outgroup attitudes. Results showed that such interventions are more effective in older children and adolescents (d = .52) than in younger children (d = .30; Ülger, Dette-Hagenmeyer, Reichle, & Gaertner, 2018). Additionally, in line with the findings of Pettigrew and Tropp (2006), studies that were conducted within the school setting and structured to meet Allport's (1954) four conditions had significantly stronger contact-prejudice effects (r = -.34*)* than studies that were not structured to meet the four conditions (r = -.19*)*. In sum, emphasizing Allport's conditions within the school setting enables positive contact experiences that result in prejudice reduction (Tropp & Prenevost, 2008).

Mediators of the Effects of Intergroup Contact

Given the strong evidence in support of intergroup contact as a means of prejudice reduction, the focus of the field recently has shifted to study the mediators of this relationship. Now, researchers are interested in why prejudice reduction results from intergroup contact. Researchers have identified cognitive and affective mediators of the effects of contact. Cognitive mediators are those that shift previous beliefs, modify social categorization, or change stereotypes. Affective mediators are emotional in nature and include modifications in feelings, perspectives, and relationships.

Cognitive mediators. In his seminal text, Allport (1954) proposed the first cognitive mediator. He stated that intergroup contact worked in reducing bias because it increased *knowledge* about the outgroup, thus demystifying members of the outgroup. More recent work in this area has suggested that mere knowledge of the existence of the outgroup does not produce

significant prejudice reduction effects (Pettigrew & Tropp, 2006). Instead, research has demonstrated that knowledge about the outgroup operates specifically by highlighting differences between groups (Wolsko, Park, Judd, & Wittenbrink, 2000), which is in line with Brown and Hewstone's (2005) theory that salience of group differences is important for generalization of contact effects.

Another cognitive mediator is *individuation*, or learning about the individual characteristics of unique outgroup members. Individuation was a major component of Brewer and Miller's (1984) model; the goal of this process is to encourage multi-dimensional, complex views of individual members of the outgroup in the hope that these views might generalize to the outgroup as a whole (Brown & Hewstone, 2005). The primary mechanism for individuation is a self-other comparison process, in which the other person is assessed in terms of her similarity or closeness to the self (Miller, 2002).

A third cognitive mediator is the modification of stereotypes. Previous research suggests that stereotypes can be changed in many ways, including *bookkeeping, conversion,* and *subtyping*. Bookkeeping consists of gradual change and relies on the additive influence of several pieces of information that disconfirm a particular stereotype (Rothbart, 1981). Conversion occurs when a person encounters dramatic disconfirming information that results in a radical change in beliefs (Rothbart, 1981). In subtyping, an individual creates a separate category for people who disconfirm preexisting stereotypes (Richards & Hewstone, 2001). The literature in this field suggests that stereotype change occurs most often in contact situations in which outgroup members display *perceived typicality*, only mildly disconfirming stereotypes (Richards & Hewstone, 2001). Thus, outgroup members who are more typical of the outgroup are more likely to affect cognitive change.

Affective mediators. More recent work on intergroup contact points to the idea that affective mediators produce stronger prejudice reduction effects than cognitive mediators (Pettigrew & Tropp, 2008). Additionally, affective processes are more predictive of intergroup behavior than are cognitive processes (Stangor, Sullivan, & Ford, 1991). Affective mediators include intergroup anxiety, empathy, and perspective-taking.

Intergroup anxiety. Intergroup anxiety is perhaps one of the most studied affective mediators of intergroup contact. Intergroup anxiety refers to negative, apprehensive emotions felt in anticipation of or engagement in intergroup contact. Stephan and Stephan (1985) posited that people experience anxiety in intergroup situations because of fear of acting inappropriately. They theorized that people who were threatened by interactions with the outgroup were also more likely to avoid such interactions. Yet, many studies demonstrate that individuals who experience intergroup anxiety benefit from intergroup contact. Evidence suggests that intergroup contact reduces intergroup anxiety and perceived threat. One study of 440 16- to 18-year-old Catholic and Protestant students in Northern Ireland showed that intergroup contact was negatively associated with anxiety (r = -.40*)* and positively associated with evaluation of outgroup friends (r = .43*)* and evaluation of outgroup members in general. In another study, conducted by Page-Gould, Mendoza-Denton, and Tropp (2008), 144 participants engaged in activities designed to create friendships with members of the outgroup once a week for three weeks. Results showed that participants who were high in prejudice before the study experienced significant decreases in anxiety over the course of the study. These participants also actively looked for and engaged in more intergroup interactions after the initial intergroup contact. Thus, studies show that intergroup contact has the potential to reduce intergroup anxiety, which in turn reduces prejudice and bias.

Empathy and perspective-taking. Aside from intergroup anxiety, other affective mediators include empathy and perspective-taking. Empathy can be defined as an emotional state that involves imagining how another person perceives a specific situation and how that person feels (Brown & Hewstone, 2005). Perspective-taking refers to the action of viewing a situation from another's point of view. It has been proposed that empathy and perspective-taking facilitate the relationship between intergroup contact and prejudice reduction because they help individuals include an outgroup member in the self (Aron et al., 2004). The inclusion of an outgroup member in the self is important because the positive, altruistic feelings that follow could generalize to the group as a whole (Galinsky & Moskowitz, 2000). In a study of 37 college students, Galinksy and Moskowitz found that perspective-taking led to decreased bias and stereotyping. They determined that the mechanism for the decrease in bias and stereotyping was increasing the overlap between the self and the outgroup target. Perspective-taking also led to a decrease in differential treatment of outgroup members, demonstrating the generalizability of the feelings that were produced. In addition, a meta-analysis conducted by Pettigrew and Tropp (2008) found that empathy and perspective-taking produced larger prejudice reduction effects than both knowledge about the outgroup and a reduction of intergroup anxiety. Empathy and perspective-taking are practices that are characteristic of close relationships and friendships.

In recent years, researchers have begun discussing the concept of empathy in cross-cultural settings. As this is a relatively new concept, a specific term has not yet been decided upon. Authors refer to empathy towards outgroup members as cultural empathy (Ivey, Ivey, & Simek-Downing, 1987; Ridley & Lingle, 1996), ethnic perspective-taking (Quintana, Ybarra, Gonzalez-Doupe, & Baessa, 2000), or empathic multicultural awareness (Junn, Morton, & Yee, 1995), and have developed different models to represent the ability to experience the world of an individual of a different cultural or ethnic background. Perhaps the most solidified model of cultural empathy was developed by Ridley and Lingle (1996). In their model, they posited that cultural empathy can be learned. They suggested that cultural empathy consists of three facets: cognition, affect, and communication. The cognitive part of cultural empathy involves cultural perspective-taking and differentiation between the self and the outgroup member. The affective processes refer to feelings that are experienced vicariously. Lastly, the communicative portion of cultural empathy involves the ability to demonstrate understanding.

Wang and colleagues (2003) used the existing models of cultural empathy to develop the construct of ethnocultural empathy and create a scale to measure the construct. Because parts of this scale were used in this study, this construct will be referred to as ethnocultural empathy in this paper. Wang and colleagues (2003) suggested that ethnocultural empathy is a trait that can be learned and practiced. Ethnocultural empathy has three components: intellectual empathy, empathic emotions, and communication. Intellectual empathy refers to the ability to understand an outgroup member's thinking and feelings and see the world through the perspective of that person. Empathic emotions refer to the ability to feel an outgroup member's feelings through the lens of his or her race or culture. The communication aspect involves being able to convey understanding of thoughts and feelings to the outgroup member. Ethnocultural empathy is important in cross-group relationships because it allows participants to connect on a deeper level and understand each other's experiences. Research suggests that ethnocultural empathy is correlated with general empathy (Wang et al., 2003). Additionally, people who have experiences with more diverse populations have higher levels of ethnocultural empathy (Wang et al., 2003), suggesting that intergroup contact is beneficial in the development of this construct. The

following section will delve into the concept of cross-group friendship and review current literature on cross-group friendships.

Cross-Group Friendship

One specific type of intergroup contact is cross-group friendship. Cross-group friendship refers to meaningful relationships with people from other backgrounds that result from intergroup contact. Cross-group friendship relies on many affective elements, including self-disclosure, interpersonal closeness, shared interests, and perceived similarity. Generally, people who have adequate socio-cognitive abilities, utilize empathy and perspective-taking, have high self-efficacy, and demonstrate low or no intergroup anxiety are more likely to engage in cross-group friendships (Turner & Cameron, 2016).

A recent, yet large, body of evidence supports the relationship between cross-group friendship and prejudice reduction. In their large-scale meta-analysis, Pettigrew and Tropp (2006) conducted a small sub-analysis of studies that focused specifically on intergroup contact between friends. They found that cross-group friendships produced slightly larger effect sizes (r = -.25) than other forms of intergroup contact (r = -.21). In order to further explore the effects of cross-group friendships on intergroup attitudes, Davies et al. (2011) examined 135 individual studies with 208 individual samples. Their results demonstrated that cross-group friendships predicted positive intergroup attitudes, and that studies that used multiple item measures with high reliability produced significantly stronger effects than measures with low reliability. Davies et al. did not find any age or gender differences.

Another study of cross-group friendships in college students used a longitudinal design to examine whether cross-group friendships during college predicted ethnic attitudes at the end of college (Levin, van Laar, & Sidanius, 2003). Participants included over 200 ethnically diverse students. The results of the study suggested that students who were more biased at the beginning of college and higher in intergroup anxiety had fewer outgroup friends later in college. In line with this finding, students who had more outgroup friends during college reported less anxiety and less bias at the end of college. The authors highlighted that the causal pathways between bias and number of friends were similar in size in both directions.

In the previously mentioned study, Page-Gould and colleagues (2008) also examined intergroup anxiety in the context of college friendships. However, in this study, friendships were induced using an extended version of the Fast Friends task (Aron, Mellinat, Aron, Vallone, & Bator, 1997) in which students conducted a task focused on generating interpersonal closeness over three separate sessions. Researchers explored the effects of cross-group friendship on students' rejection sensitivity, intergroup anxiety, and tendency to seek out intergroup interactions. The results of the study showed that participants who were high in rejection sensitivity and implicit bias at the beginning of the study demonstrated significant decreases in intergroup anxiety and tended to seek out more intergroup interactions at the end of the study.

Aside from improved outgroup attitudes, reduced bias, and reduced anxiety, research suggests that cross-group friendship has other positive implications in children and adolescents. For example, in Kawabata and Crick's (2005) study of 509 fourth-grade students, teachers rated students with more cross-group friendships as better leaders and more relationally inclusive. Students with more cross-group friendships also demonstrated greater academic engagement and fewer internalizing symptoms. The benefits of cross-group friendships also occur in middle-school. In a study of 227 seventh graders, Munniksma and Juvonen (2012) found that cross-ethnic friendships were associated with a sense of social emotional safety for minority students,

but not for majority students. Thus, these types of relationships may be especially transformational in alleviating potential perceptions of discrimination for ethnic minorities. Additionally, a later study suggested that cross-group friendships were associated with less perceived vulnerability among 538 sixth graders in a diverse setting (Graham, Munniksma, & Juvonen, 2014). Together, these studies point to the benefits of cross-group friendships for students of all ethnicities and ages.

Existing Intergroup Contact Interventions

Despite the benefits of cross-group friendships, research suggests that students have a strong preference for same-group friendships over cross-group friendships at all developmental periods (Graham et al., 2009). Thus, in order to help students reap the benefits of cross-group friendship, interventions that increase intergroup contact and the possibility of the development of these relationships are necessary. Currently, three types of cross-group friendship interventions exist: extended contact, imagined contact, and direct contact interventions.

The first type of intervention, extended contact, consists of students knowing an ingroup member who has outgroup friends. Face-to-face interaction between group members does not actually occur. Most extended contact interventions have been implemented in elementary school-age children. In one such intervention conducted by Cameron and Rutland (2006), students were read stories about members of the ingroup who were friends with members of the outgroup. After reading the stories each week, teachers engaged the children in discussions about the characters and stories. The researchers found that children who were part of the intervention had more positive outgroup attitudes and a stronger desire to engage with members of the outgroup than students who were not part of the intervention.

The second type of intervention is imagined contact. In imagined contact interventions, participants mentally simulate a social interaction with an outgroup member. Stathi and colleagues (2014) implemented an imagined contact intervention in which European children imagined a day spent with an Asian child once a week for three weeks. Compared to the control group, children who participated in the imagined contact intervention showed more positive attitudes, greater perceived similarity, and more desire for intergroup contact. Although both extended and imagined contact interventions have been found to be effective in improving intergroup attitudes and desire for intergroup friendships, neither involves face-to-face contact. Additionally, imagined contact interventions may not be generalizable to real world situations (Lee & Jussim, 2010).

The third type of intervention is direct contact, or face-to-face interactions with members of the outgroup. One such intervention is the Fast Friends Task, a direct contact intervention that was developed by Aron and colleagues (1997). It is a practical method for developing interpersonal closeness in an experimental context. The core element of the task is structured self-disclosure. It was created by Aron and colleagues on the premise that close relationships involve repeated, personal, escalating self-disclosure. The original task involved one 45-minute period in which participants alternated answering personal questions. In some studies, the question portion of the task is followed by a cooperative task, such as a game. An extended version was used by Page-Gould and colleagues (2008) to address intergroup anxiety and outgroup attitudes in adults. They found that the intervention was effective in generating interpersonal closeness, reducing intergroup anxiety, and improving outgroup attitudes in a sample of college students. Although the Fast Friends Task has been demonstrated to be an

effective direct contact intervention for adults, direct contact interventions do not currently exist for children or adolescents.

The Current Study

This study was conducted to fill the existing gap in intergroup contact interventions by adapting the Fast Friends Task direct contact intervention for early adolescents. The goal of the study was to examine the efficacy of the direct contact intervention in generating interpersonal closeness and empathy and improving outgroup attitudes. Current research points to the need for a cross-group friendship intervention during adolescence. Adolescence is a time of heightened social sensitivity when students prefer relationships with individuals of their own ethnic background (Graham et al., 2009). Together, the importance of peer relationships and the formative nature of the experiences and relationships of adolescence make early adolescence a prime period for intervention. If adolescents have a positive experience at the beginning of this important social stage, they are more likely to have more positive intergroup attitudes and seek cross-group friendships as they get older.

Given the increasing ethnic diversity in schools, the school context is the ideal place to foster intergroup contact and encourage cross-group friendships. Prenevost and Tropp's (2008) meta-analysis demonstrated that samples within school settings that had structured optimal intergroup contact had significantly stronger contact-prejudice effects than those without structured conditions. Schools are small microsystems that can be structured to meet Allport's (1954) four optimal conditions: (a) equal group status; (b) common goals; (c) intergroup cooperation; and (d) the support of law, institutions, or customs. Students in the same grade share equal status with one another. Students who are working on tasks or activities together share common goals and must cooperate to reach those goals. Lastly, institutional support comes in the form of administrations that encourage students to develop cross-group friendships. Additionally, in the school setting, participants have multiple exposures to one another; they can continue to foster their relationship in classes, on sports teams, and during free periods. As a result, the school setting is the ideal location for a cross-group friendships intervention for early adolescents.

In this study, I asked three questions. First, did the adapted Fast Friends Task generate interpersonal closeness in early adolescents? The task was originally created as a practical method for forming interpersonal closeness in an experimental context (Aron et al., 1997). In the original study, the task was effective in generating interpersonal closeness in a population of female college students (d = .88). In the current study, the task was adapted to be developmentally appropriate for early adolescents. Questions referring to death of family members or traumatic events were removed. I hypothesized that the adapted Fast Friends Task would generate interpersonal closeness in early adolescents.

Second, I asked whether the adapted Fast Friends Task increased ethnocultural empathy, and whether ethnocultural empathy mediated the relationship between cross-group friendship and prejudice reduction. Evidence suggests that empathy and perspective-taking are mediators of the relationship between intergroup contact and prejudice reduction, and produce stronger effects than cognitive mediators (Pettigrew & Tropp, 2008). In addition, previous research demonstrates a positive correlation between intergroup contact and ethnocultural empathy (Wang et al., 2003). I hypothesized that participation in the adapted Fast Friends task would increase ethnocultural empathy, and that ethnocultural empathy would mediate the relationship between intergroup contact and outgroup attitudes.

Third, I asked whether the adapted Fast Friends Task would improve outgroup attitudes, as measured by adolescents' desire to interact with outgroup members, thoughts about outgroup members, and warmth towards the outgroup. In their study, Page-Gould et al (2008) found that participation in an extended Fast Friends Task was associated with decreased intergroup anxiety and increased initiation of interactions with outgroup members for college students. In line with these findings, I hypothesized that the adapted Fast Friends Task would improve outgroup attitudes and increase adolescents' desire to interact with outgroup members.

Method

Study Site

This study was conducted at a small middle school in the Bay Area. The middle school is in a town less than 10 miles outside of a major city and currently has 161 enrolled students. It is a Title 1 targeted assistance school. According to data collected from the Education Data Partnership (2017), of the students who attend the middle school, 32.5% are European American, 28.1% are Asian American or Filipino, 26.9% are Hispanic or Latino, 8.1% are Multiethnic, 2.5% are African American, and 1.9% are Native Hawaiian or Pacific Islander.

Participants

The participants of this study were 139 sixth, seventh, and eighth grade students. Of the participants of this study, 48% identified as male (n = 67), 50% identified as female (n = 69), and 1% (n = 2) identified as transgender. Participants came from a variety of ethnic backgrounds (38% Asian, Filipino, or Pacific Islander, 29% European American, 7% Latino, 4% African American, and 21% Other or Multiethnic).

Procedure

Data were collected before and after the intervention was implemented. Parent consent and student assent were obtained for all participants. In addition to the survey measures, students completed demographic information (e.g., gender, grade, ethnicity) and some distractor items about their life at school (e.g., favorite subject, least favorite subject). Students were provided with an identification number in order to keep data confidential. During both survey sessions, students completed the survey using the online platform Qualtrics on their classroom Google Chromebooks. Students were instructed that they did not have to complete any questions that made them feel uncomfortable, and that they could stop participating at any time without penalty. Alternate activities were provided for students who declined study participation.

Before the intervention was implemented, the researcher presented at a staff meeting at the participating middle school and explained the intervention and control group activities to teachers. During the staff meeting, teachers were asked to pair participating students in their homerooms with a same-sex, outgroup member who they either did not know, or with whom they interacted very rarely. After the staff meeting, homerooms were randomly selected to be in the intervention or control group.

Students in the intervention group participated in the intervention over the course of six 15-minute sessions facilitated by the researcher. During each of the first five sessions, students in the intervention group completed the Fast Friends Task, a series of questions designed to facilitate self-disclosure and build interpersonal closeness (see Appendix). Questions were printed on colored cards and students were instructed to alternate reading the questions with their partners. Both partners were instructed to answer each question. Students were instructed that

they did not have to answer any questions that made them feel uncomfortable. During the last session, students in the intervention group played the cooperative version of the game of Jenga together.

Students in the control group read a current event together and answered simple comprehension questions during all six sessions. After the sixth session, all students completed the post-intervention survey measures. The school student council received a donation of $10 for each student who participated. Teachers received $75 Amazon gift cards for the time they spent on study-related activities (e.g., pairing students, collecting consent and assent forms, and helping to facilitate surveys).

Measures

To measure interpersonal closeness, participants completed a version of the Inclusion of Others in the Self (IOS) Scale (Aron et al., 1992). They were presented with seven pairs of circles (Venn-like diagrams) labeled *Self* and *Partner*. Each pair of circles overlaps to a different degree; the participant chose the pair of circles that best represented their relationship with their partner. This measure is a single 7-point interval item. In a study of the score's reliability, Aron and colleagues found that participants scores showed high test-retest (α = .86) and alternate-form reliability (α = .92) when rating friendships.

To measure ethnocultural empathy and perspective-taking, participants completed an adapted version of the Scale of Ethnocultural Empathy (SEE; Wang et al., 2003) before and after the intervention. The scale was adapted for language and brevity. The original scale has 31 items and four factors: Empathic Feeling and Expression (EFE), Empathic Perspective Taking (EPT), Acceptance of Cultural Differences (AC), and Empathic Awareness (EA). Participants in this study completed four items from the EFE factor, four items from the EPT factor, two items from the ACD factor, and one item from the EA factor.

EFE includes items that evaluate communication about discrimination and the ability to respond affectively to the emotions of people from different races through thoughts, feelings, words, or actions. EPT includes items that demonstrate an attempt to see the world from the perspective of a person from a different background. The items that make up the AC scale consist of items that evaluate acceptance of cultural practices and customs of other groups. Lastly, the EA scale is composed of items that probe about awareness of experiences of people from different backgrounds. Cronbach's alpha estimates of internal consistency for the total SEE scale score and scores on each of the four factors were as follows: SEE (.91), EFE (.90), EPT (.79), AC (.74), and EA (.71; Wang et al., 2003). Test-retest reliability was established in a study of 51 undergraduate students for the SEE total score as well as the four subscales. Test-retest reliability estimates were as follows: SEE (.76), EFE (.75), EP (.75), AC (.86), and EA (.64).

To measure outgroup attitudes, students completed items about their desired behaviors, thoughts, and warmth towards students from specific ethnic groups from a survey that was previously used in large-scale longitudinal study. Students completed four items (α = .95) about their desired behaviors with members of each of four groups (e.g., Asian American, African American, Latino, European American). An example of a question that uses behavior as a measure of outgroup attitudes includes, "Would you want to eat lunch with kids who are Latino?" Participants responded on a 5-point scale that ranged from 1 (*For sure yes!*) to 5 (*No way*). Participants completed six items (α = .94) indicating their thoughts about students from each ethnic group. An example of a question that examines participants' thoughts about the

outgroup is, "Think about kids who are African American. In your opinion, how many African American kids are kind?" Students selected an option on a 5-point scale that ranged from 1 (*Almost All*) to 5 (*Hardly Any*). Items that asked about a negative quality (e.g., selfish, mean, lazy) were reverse coded. In line with previous research (Knifsend & Juvonen, 2014; Lam & Seaton, 2016), I created an ingroup composite for each student that was the average of her answers about her own ethnic group. I also created an outgroup composite for each student that was the average of her answers for every ethnic group other than her own. Outgroup attitudes were operationalized as the difference between ingroup and outgroup scores.

Students also filled out a pictorial thermometer ranging from 0 to 10 to measure warmth towards each ethnic group present in the school. The thermometer read, for example, "How warmly do you feel about kids who are White?" Participants could drag the thermometer from 0 to 10. Higher temperature ratings indicated warmer feelings toward members of that particular group. Outgroup warmth was operationalized as the difference between the average of ratings of outgroups and ratings of the ingroup. For the purposes of answering this research question, students who self-identified as "Other" were not included because it was not possible to determine specific ingroup and outgroup attitudes.

Results

Differences in Interpersonal Closeness by Group

Analyses were conducted using SPSS (IBM, Version 25, 2017). Table 1 presents means and standard deviations by group for the IOS, the measure of interpersonal closeness, during the pre-survey and the post-survey. There were no outliers for the Pre-IOS data or the Post-IOS data, as assessed by boxplots. Pre-IOS was normally distributed, with a skewness of .21 and kurtosis of -1.33. Post-IOS was also normally distributed, with a skewness of -.13 and kurtosis of -1.21. A two-way mixed analysis of variance (ANOVA) was conducted to examine group differences and interaction effects of the intervention on interpersonal closeness. Results are presented in Table 2. As demonstrated in Figure 1, there was a statistically significant interaction between the intervention and time on interpersonal closeness, such that participants in the intervention group had a significantly higher mean IOS score on the post-test (M = 4.43) than participants in the control group (M = 3.79). The effect size (d = 0.34) was in line with effect sizes in the literature (Ülger et al., 2018).

Differences in Ethnocultural Empathy by Group

Before examining differences in ethnocultural empathy by group, reliability analyses were conducted for the items that were adapted from the SEE (Wang et al., 2003). The last item that addressed empathic awareness was not correlated enough to the other 10 items (r = .16), so it was dropped. Scores on the remaining 10-item scale had a moderate level of internal consistency, as determined by a Cronbach's alpha of .75.

Table 1 presents means and standard deviations by group for the SEE for the pre-survey and post-survey. There were no outliers for Pre-Ethnocultural Empathy, as determined by inspection of a boxplot. There were two outliers for Post-Ethnocultural Empathy. Both outliers had very low scores, suggesting that the participants had low levels of empathy towards outgroup members. The outliers were kept in the dataset. Pre-Ethnocultural Empathy was normally distributed, as determined by a skewness of -.40 and kurtosis of -.02. Post-Ethnocultural Empathy was also normally distributed, with skewness of -.63 and kurtosis of 1.56. A two-way mixed ANOVA was conducted to examine group differences and interaction effects of the

intervention on ethnocultural empathy. As demonstrated in Table 3, there was no statistically significant interaction between the intervention and time on ethnocultural empathy. Additionally, there was no main effect of group or time on the ethnocultural empathy of participants. The results of the analyses on ethnocultural empathy are displayed in Figure 2. Because there was neither a statistical nor a practical difference in ethnocultural empathy between groups, a mediation analysis of interpersonal closeness, empathy, and outgroup attitudes was not conducted.

Differences in Outgroup Attitudes by Group

Outgroup attitudes were measured through questions about behaviors, thoughts, and warmth. Results presented in this section are for the two largest groups at the school (Asian Americans and European Americans), as the sample sizes for other ethnic groups were very small. However, means and standard deviations for all ethnic groups are presented in Table 4. In line with previous literature, outgroup attitudes were calculated by subtracting outgroup scores from ingroup scores.

Reliability analyses were completed for scores on scales of behaviors and thoughts. Students' scores on the scale of outgroup attitudes as measured by behavior had a high level of internal consistency, as determined by a Cronbach's alpha of .93 for Asian American students and a Cronbach's alpha of .95 for European American students. Scores on the scale of ingroup attitudes as measured by behavior also had an acceptable level of internal consistency, as demonstrated by Cronbach's alphas of .74 for Asian American students and .83 for European American students. For outgroup attitudes as measured by thoughts, Asian American students' scores had high internal consistency as demonstrated by a Cronbach's alpha of .91, as did European American students' scores as demonstrated by a Cronbach's alpha of .95. The scale of ingroup attitudes as measured by thoughts also had high internal consistency for Asian Americans (.83) and for European Americans (.88).

Tables 5 and 6 present descriptive statistics by group for Asian American and European American students by group. Two-way mixed analyses of variance (ANOVA) were conducted to examine group differences and interaction effects. Before conducting the analyses, assumptions were tested. For both Asian American students and European American students, there were three outliers in each ethnic group for Pre-Outgroup Behaviors and Post-Outgroup Behaviors. For Pre-Outgroup Thoughts, there were eight Asian American outliers and seven European American outliers. For Post-Outgroup Thoughts, there were 11 Asian American outliers and four European American outliers. For Pre-Outgroup Warmth, there were four Asian American outliers and 11 European American outliers. For Post-Outgroup Warmth, there were eight Asian American outliers and seven European American outliers. The outliers were kept in the dataset for all variables. Normality for all distributions was assessed using skewness and kurtosis, which are presented in Tables 5 and 6. Although some of the distributions had elevated kurtosis, the data were not transformed because ANOVA is considered to be fairly robust to deviations from normality.

As presented in Table 7, there was a statistically significant interaction between the intervention and time on Asian American's outgroup attitudes as measured by intended behaviors. Participants in the intervention group wanted to engage more with outgroup members after the intervention than participants in the control group, as demonstrated in Figure 3. The effect size (d = .20) was in the small range. Results differed for European American students. As presented in Table 8, there was a main effect of group for European American students such

that students in the intervention group had a significantly higher desire to interact with outgroup members than students in the control group. However, there was not a statistically significant interaction between the intervention and time on outgroup attitudes as measured by behavior for European American students, as demonstrated in Figure 4.

As Tables 9 and 11 demonstrate, there were no statistically significant main effects for outgroup attitudes as measured by thoughts or by warmth for Asian American students. Additionally, there was not a statistically significant interaction between the intervention and time on outgroup attitudes as measured by thoughts or by warmth for Asian American students, as shown in Figures 5 and 7. For European American students, there was a main effect of time on outgroup attitudes as measured by thoughts such that thoughts changed significantly in both groups over time. These results are presented in Figure 6. However, as Figure 8 demonstrates, there were no significant main effects for outgroup attitudes as measured by warmth for European American students, and there were no statistically significant interactions between intervention and time on outgroup attitudes as measured by thoughts or warmth for European American students.

Discussion

In this study, an existing friendship intervention was adapted for an early adolescent population, and the effect of this intervention on interpersonal closeness, empathy, and outgroup attitudes was examined. Participants were paired with outgroup peers and assigned to either the control group or the intervention group. Across six 15-minute sessions, adolescents in the control group read current event articles and answered discussion questions with their partners. Adolescents in the intervention group participated in the adapted friendship intervention with their outgroup partners. Results indicated that the intervention facilitated interpersonal closeness between partner pairs to a greater extent than did mere contact. Results also suggest that the intervention affected participants' desire to interact with outgroup members across both ethnic groups (Asian Americans and European American). Participants in the intervention group endorsed a desire to engage in behaviors with outgroup members after the intervention more than their peers in the control group did. Additionally, for European American students, both the control and intervention activities affected thoughts about the outgroup. However, participation in the intervention did not affect levels of ethnocultural empathy or warmth towards outgroup members.

Previous literature suggested that participation in the Fast Friends Task led to increased levels of interpersonal closeness in adults (Aron et al., 1997). The results of this study extend these findings to an early adolescent population, demonstrating that participation in the adapted Fast Friends task resulted in increased levels of interpersonal closeness. Given the ease of implementation, the adapted Fast Friends task can be utilized in schools or other organizations to improve relationships and build community among youth. Additionally, because participation in the adapted version of the Fast Friends task with an outgroup peer resulted in an increased desire to interact with outgroup members in comparison to participation in the control activity, the adapted Fast Friends Task fills the existing gap in direct-contact interventions for adolescents. As a result, it may be especially useful in diverse school contexts.

In this study, the relationship between ethnocultural empathy and prejudice reduction was also explored. Previous literature suggested that affective mediators produce stronger prejudice reduction effects than cognitive mediators (Pettigrew & Tropp, 2008). Additionally, affective processes have been found to be more predictive of intergroup behavior than cognitive processes

(Stangor, Sullivan, & Ford, 1991). However, the results of this study did not support the idea that ethnocultural empathy predicts changes in intergroup behavior. One potential reason that participants' empathy scores did not change as a result of the intervention could be that the questions assessed ethnocultural empathy as opposed to general empathy. Although Wang and colleagues (2003) showed a correlation between ethnocultural empathy and general empathy, it is possible that had the questions been more general, results would have differed. Another possible reason that participants' scores did not change is because the measure of ethnocultural empathy asked about the outgroup as a whole (i.e., anybody of another ethnicity). Given the brief and non-invasive nature of the intervention, it would be difficult to expect improved outgroup attitudes of participants to generalize towards all outgroup members. It is possible that a longer, more intense intervention that specifically addresses ethnicity would produce effects that would more easily generalize to the outgroup as a whole. However, this intervention generated positive attitudes and feelings towards individuals, as demonstrated by increased interpersonal closeness with participants' partners and increased desire to interact with outgroup members. It is likely that the current intervention laid the foundation for longer-term friendships among some of the pairs. In line with the literature on cross-group friendships, these relationships may improve feelings of school-belonging and psychosocial safety, decrease peer victimization, and lead to improved outgroup attitudes in the future (Graham et al., 2014; Kawabata & Crick, 2005; Turner & Cameron, 2016).

Lastly, the results of the current study suggested that the intervention increased participants' desire to spend time with outgroup members, but that it did not produce a change in participants' outgroup thoughts or warmth. The change that European American students experienced in their thoughts cannot be attributed to the intervention, as students in the control group experienced change as well. The adapted intervention cumulatively lasted only 90 minutes, so it is possible that a longer and more intensive intervention is required to change outgroup thoughts and increase feelings of warmth towards the outgroup. Additionally, given the age and developmental stage of the participants in this study, engaging in activities with outgroup members may be a prerequisite to changing thoughts and feelings towards them. Spending time with outgroup members allows for cognitive and affective mediators, such as knowledge about the outgroup, perspective-taking, and empathy, to develop, and in turn to reduce prejudice. Thus, the fact that this short intervention increased desire to engage in activities with outgroup members is a solid foundation for prejudice reduction in early adolescents.

Results of this study were slightly more pronounced for Asian American students than European American students, as evidenced by the interaction effect for outgroup attitudes as measured by behavior. Although the demographics of the country are changing rapidly, European Americans are still the majority in the United States and in California (US Census Bureau, 2015). Previous research suggests that interventions targeting outgroup attitudes are often more effective for majority group members (Tropp & Pettigrew, 2005); however, the current study points to the intervention being slightly more effective for Asian American students. Given the relatively equal Asian American and European American student populations at the middle school, minority group effects may have been erased for Asian American students thus leading to the results of the current study.

Considering the results of this study, schools with diverse student bodies may benefit from implementing similar interventions in an effort to build a cohesive and inclusive community. In this study, a simple 90-minute intervention increased feelings of interpersonal

closeness and improved outgroup attitudes as measured by behavior. The implementation of the adapted Fast Friends task, or a similar intervention, may help students in diverse schools build more cross-ethnic friendships and lead to more inviting educational environments for all children.

Limitations and Future Directions

This study has several limitations. One limitation is the small sample size and uneven samples from each ethnic group. The study would have been more robust had there been more African American students. Additionally, the school was originally chosen because the administration reported relatively equal numbers of Asian American, Latino, and European American students. However, when students were allowed to self-identify, many more identified as Asian American, European American, Multiethnic, or Other than Latino, so groups were unequal. Students who identified as "Other or Multi-ethnic" were left out of the outgroup attitudes analyses as is it was not possible to determine their ingroup and outgroup attitude scores. Future research would benefit from having a more robust system for students to identify their ingroup and outgroup that allows participation from students from a wider range of ethnic groups.

In addition, utilizing the school context was both an asset and a limitation. Implementation of the intervention within a school demonstrated its practical significance and showed that a short, easy-to-facilitate intervention can generate interpersonal closeness and affect intended behavior. However, conducting this study within the school context also meant that interaction with partners outside of the intervention could not be controlled. Therefore, it is possible that social interactions with partners in classes and at break times may have also impacted results. Future researchers should consider this when designing studies to examine the impacts of an intervention in schools.

Another limitation of this study was that the questions used to measure empathy specifically targeted ethnocultural empathy. During study design, a general empathy measure was also included in the survey materials, but it had to be omitted because of the length of the survey. Future studies would benefit from asking questions about general empathy to examine whether a more general measure would yield different results.

A final limitation is that all of the data for this study were collected in California, specifically in the Bay Area. Considering the fact that California is the most ethnically diverse state in the United States (United States Census Bureau, 2015), participants' outgroup attitudes and feelings may not be reflective of the attitudes and feelings of middle school students in other parts of the country.

Future research studies could implement this intervention in a larger sample of students, with more equal numbers of students from each ethnic group. Having a larger, more equal sample size may yield different results. Additionally, future researchers could include students who identify as "Other" in their analyses by rethinking how to present the outgroup attitude questions. Researchers should also consider whether implementation within the school context is in line with their research goals. Lastly, future researchers could gather data from across the United States so that their results are more generalizable to the greater population.

Conclusion

In this study, the Fast Friends task that was developed by Aron and colleagues (1997) was adapted for use with early adolescents. This study examined the effects of participation in

the adapted task with an outgroup peer on interpersonal closeness, ethnocultural empathy, and outgroup attitudes. Middle school participants were paired with same-sex, outgroup peers. Pairs were then divided into a control group and an intervention group. Over the course of six 15-minute sessions, students in the intervention group participated in the adapted Fast Friends task; students in the control group read current event articles and discussed them. Data were collected before the start of the intervention and after the intervention in an online survey. Results indicated that participation in the adapted Fast Friends task generated greater feelings of interpersonal closeness between partners than did participation in the control activity. Additionally, students who participated in the Fast Friends task felt a stronger desire to interact with outgroup members after the intervention than students who did not participate in the task. Participation in the task did not affect levels of ethnocultural empathy or improve thoughts about outgroup members or feelings of warmth towards the outgroup. However, considering the heightened attention to peer relationships in middle school, an increased intention to engage with outgroup members may be a precursor to changes in thoughts and feelings towards the outgroup. Future studies should consider a study design with a larger sample size that includes more equal numbers of students from different ethnic groups, as well as from various locations across the country. Additionally, given the changing demographics of the country, future researchers should consider how to include multi-ethnic students in studies of this nature.

The findings of this study suggest that short, easily implementable interventions can be an effective method for structuring intergroup contact and developing relationships between students from different backgrounds within the school context. The adapted Fast Friends Task fills an existing gap in the literature for a direct-contact intervention for adolescents. Although the intervention did not generate all of the desired outcomes, it did lead to increased levels of closeness between partners and changed intentions for outgroup behavior. Thus, the adapted Fast Friends task can be viewed as a foundation for future, more intensive interventions. As the population in the country continues to change, it is important to consider interventions such as this one that facilitate cross-group friendships between early adolescents and contribute to the creation of inclusive learning environments.

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Table 1

Means and Standard Deviations by Group and Total for Questions 1 and 2

	Control Group (n = 62)		Intervention Group (*n* = 70)		Total (*n* = 132)	
Variables	*M*	*SD*	*M*	*SD*	*M*	*SD*
Pre Inclusion of Others in Self	3.87	2.03	3.37	2.13	3.61	2.09
Post Inclusion of Others in Self	3.79	1.92	4.43	1.85	4.13	1.9
Pre Scale of Ethnocultural Empathy	4.61	0.73	4.6	0.62	4.61	0.67
Post Scale of Ethnocultural Empathy	4.61	0.81	4.53	0.73	4.57	0.77

Table 2

Means and Standard Deviations by Ethnic Group and Total for Outgroup Attitudes

	Asian American (n = 47)		White (n = 37)		Latino (n = 9)		African American (n = 3)		Total (n = 95)	
Variables	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Pre Outgroup Behavior	0.29	0.58	0.16	0.62	0.50	0.76	0.17	0.29	0.25	0.61
Post Outgroup Behavior	0.23	0.57	0.16	0.55	0.41	0.76	0.33	0.58	0.23	0.57
Pre Outgroup Thoughts	-0.14	0.07	0.04	0.56	-0.18	0.41	0.07	0.07	-0.07	0.51
Post Outgroup Thoughts	-0.15	0.48	-0.07	0.51	0.00	0.58	-0.48	0.62	-0.12	0.50
Pre Outgroup Warmth	1.04	2.08	0.55	2.38	1.41	1.98	0.83	1.44	0.88	0.22
Post Outgroup Warmth	1.27	2.31	0.31	2.92	0.52	3.12	1.16	2.02	0.82	2.67

Table 3

Analysis of Variance Results for Group and Time Variables for Ethnocultural Empathy

Source	*df*	*SS*	*MS*	*F*	*p*	η^2
Between subjects						
Group	1.00	0.10	0.10	0.11	0.74	0.00
Error 1	123.00	108.80	0.89			
Within subjects						
Time	1.00	0.07	0.07	0.45	0.50	0.00
Group x Time	1.00	0.08	0.08	0.50	0.48	0.00
Error 2	123.00	19.72	0.16			

Table 4

Means and Standard Deviations by Ethnic Group and Total for Outgroup Attitudes

	Asian American (n = 47)		White (n = 37)		Latino (n = 9)		African American (n = 3)		Total (n = 95)	
Variables	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Pre Outgroup Behavior	0.29	0.58	0.16	0.62	0.50	0.76	0.17	0.29	0.25	0.61
Post Outgroup Behavior	0.23	0.57	0.16	0.55	0.41	0.76	0.33	0.58	0.23	0.57
Pre Outgroup Thoughts	-0.14	0.07	0.04	0.56	-0.18	0.41	0.07	0.07	-0.07	0.51
Post Outgroup Thoughts	-0.15	0.48	-0.07	0.51	0.00	0.58	-0.48	0.62	-0.12	0.50
Pre Outgroup Warmth	1.04	2.08	0.55	2.38	1.41	1.98	0.83	1.44	0.88	0.22
Post Outgroup Warmth	1.27	2.31	0.31	2.92	0.52	3.12	1.16	2.02	0.82	2.67

Table 5

Means and Standard Deviations by Group for Outgroup Attitudes of Asian Americans

	Control (n = 18)				Intervention (n = 29)			
Variables	*M*	*SD*	*Skewness*	*Kurtosis*	*M*	*SD*	*Skewness*	*Kurtosis*
Pre Outgroup Behavior	0.18	0.50	3.06	11.29	0.35	0.63	2.34	6.50
Post Outgroup Behavior	0.23	0.45	3.35	12.55	0.23	0.62	2.02	8.61
Pre Outgroup Thoughts	-0.08	0.56	0.68	2.16	-0.18	0.47	-1.20	2.66
Post Outgroup Thoughts	-0.06	0.33	0.13	2.21	-0.21	0.54	-3.11	12.68
Pre Outgroup Warmth	0.91	1.73	1.58	3.51	1.13	2.30	0.89	1.80
Post Outgroup Warmth	1.90	2.31	1.26	1.27	0.87	2.26	1.06	2.48

Table 6

Means and Standard Deviations by Group for Outgroup Attitudes of European Americans

	Control (n = 20)				Intervention (n = 17)			
Variables	*M*	*SD*	*Skewness*	*Kurtosis*	*M*	*SD*	*Skewness*	*Kurtosis*
Pre Outgroup Behavior	0.23	0.60	2.57	5.68	0.07	0.65	2.89	11.86
Post Outgroup Behavior	0.26	0.57	2.20	4.50	0.09	0.52	2.76	10.81
Pre Outgroup Thoughts	-0.10	0.65	-2.30	5.20	0.21	0.39	1.15	-0.14
Post Outgroup Thoughts	-0.19	0.66	-2.22	4.96	0.08	0.14	1.46	1.61
Pre Outgroup Warmth	0.99	3.08	1.54	4.00	0.03	1.01	0.83	5.98
Post Outgroup Warmth	0.99	2.96	1.20	4.44	-0.49	2.76	-2.76	9.68

Table 7

Analysis of Variance Results for Group and Time Variables for Outgroup Attitudes for Asian American Students (Behavior)

Source	*df*	*SS*	*MS*	*F*	*p*	η^2
		Between subjects				
Group	1.00	0.00	0.00	0.00	0.93	0.00
Error 1	48.00	29.05	0.61			
		Within subjects				
Time	1.00	0.00	0.00	0.00	0.95	0.00
Group x Time	1.00	0.29	0.29	4.09	0.05	0.08
Error 2	48.00	3.43.	0.07			

Table 8

Analysis of Variance Results for Group and Time Variables for Outgroup Attitudes for European American Students (Behavior)

Source	*df*	*SS*	*MS*	*F*	*p*	η^2
		Between subjects				
Group	1.00	1.59	1.59	4.02	0.05	0.11
Error 1	34.00	13.39	0.39			
		Within subjects				
Time	1.00	0.03	0.03	0.63	0.43	0.02
Group x Time	1.00	0.03	0.03	0.06	0.81	0.00
Error 2	34.00	1.53	0.05			

Table 9

Analysis of Variance Results for Group and Time Variables for Outgroup Attitudes for Asian American Students(Thoughts)

Source	*df*	*SS*	*MS*	*F*	*p*	η^2
		Between subjects				
Group	1.00	0.36	0.36	0.97	0.33	0.02
Error 1	45.00	16.69	0.37			
		Within subjects				
Time	1.00	0.00	0.00	0.00	0.94	0.00
Group x Time	1.00	0.02	0.02	0.17	0.68	0.00
Error 2	45.00	4.81	0.12			

Table 10

Analysis of Variance Results for Group and Time Variables for Outgroup Attitudes for European American Students (Thoughts)

Source	*df*	*SS*	*MS*	*F*	*p*	η^2
		Between subjects				
Group	1.00	1.56	1.56	3.17	0.09	0.00
Error 1	35.00	17.12	0.49			
		Within subjects				
Time	1.00	0.24	0.24	4.78	0.04	0.12
Group x Time	1.00	0.01	0.01	0.16	0.69	0.01
Error 2	35.00	1.77	0.05			

Table 11

Analysis of Variance Results for Group and Time Variables for Outgroup Attitudes for Asian American Students (Warmth)

Source	*df*	*SS*	*MS*	*F*	*p*	η^2
		Between subjects				
Group	1.00	2.82	2.82	0.39	0.54	0.01
Error 1	51.00	368.05	7.22			
		Within subjects				
Time	1.00	7.29	7.29	2.17	0.15	0.04
Group x Time	1.00	4.76	4.76	1.42	0.24	0.03
Error 2	51.00	171.23	3.34			

Table 12

Analysis of Variance Results for Group and Time Variables for Outgroup Attitudes for European American Students (Warmth)

Source	*df*	*SS*	*MS*	*F*	*p*	η^2
Between subjects						
Group	1.00	31.97	31.97	3.36	0.08	0.08
Error 1	38.00	361.88	9.52			
Within subjects						
Time	1.00	1.51	1.51	0.43	0.52	0.01
Group x Time	1.00	0.92	0.92	0.26	0.61	0.01
Error 2	38.00	132.33	3.48			

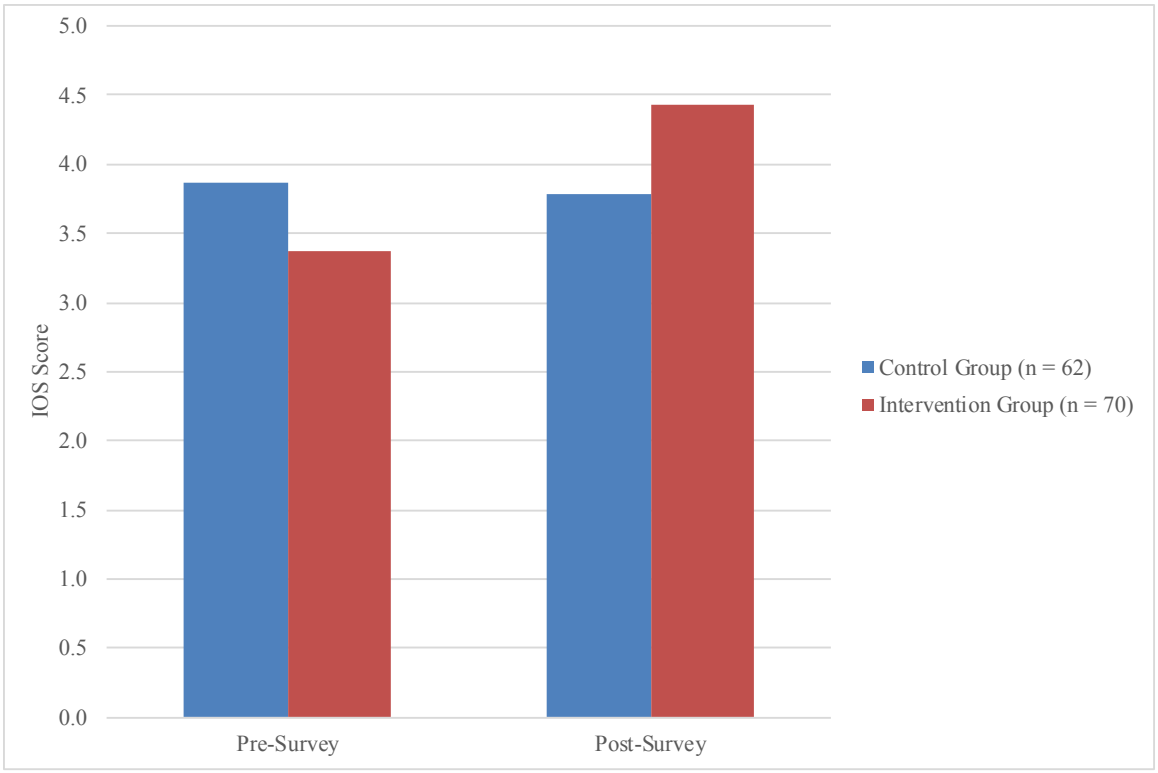


Figure 1. Interpersonal closeness across time and group.

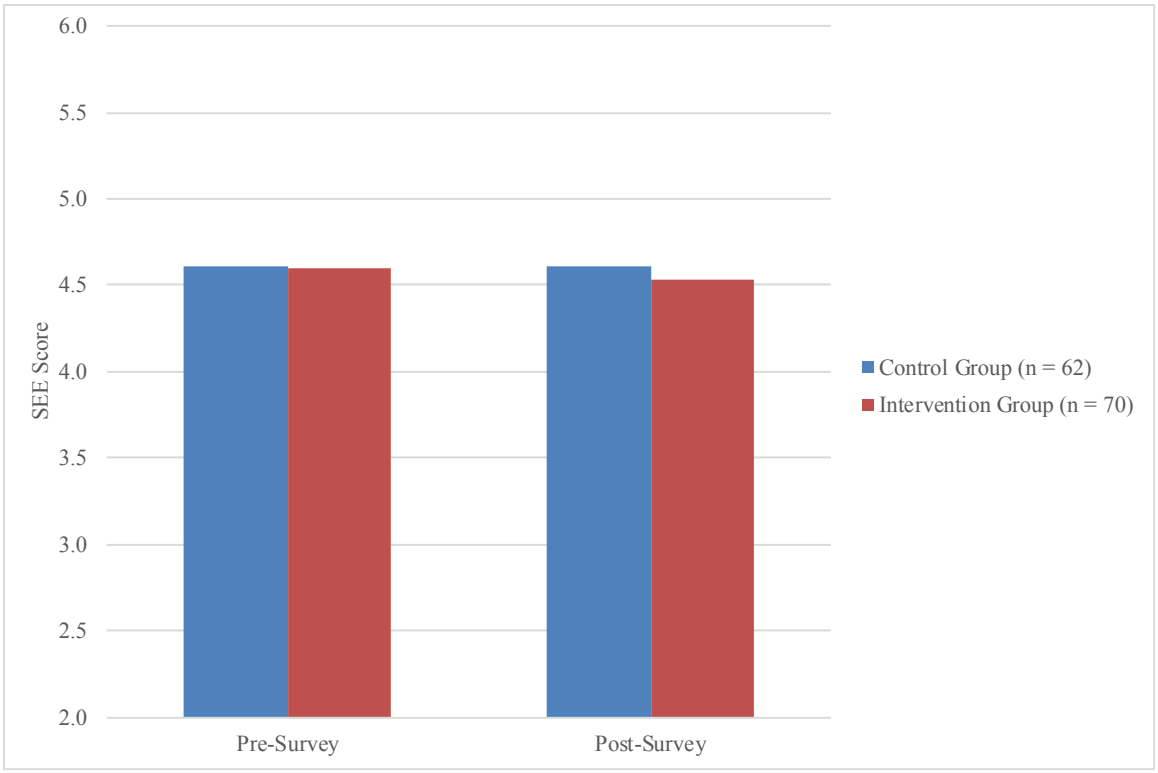


Figure 2. Ethnocultural empathy across time and group.

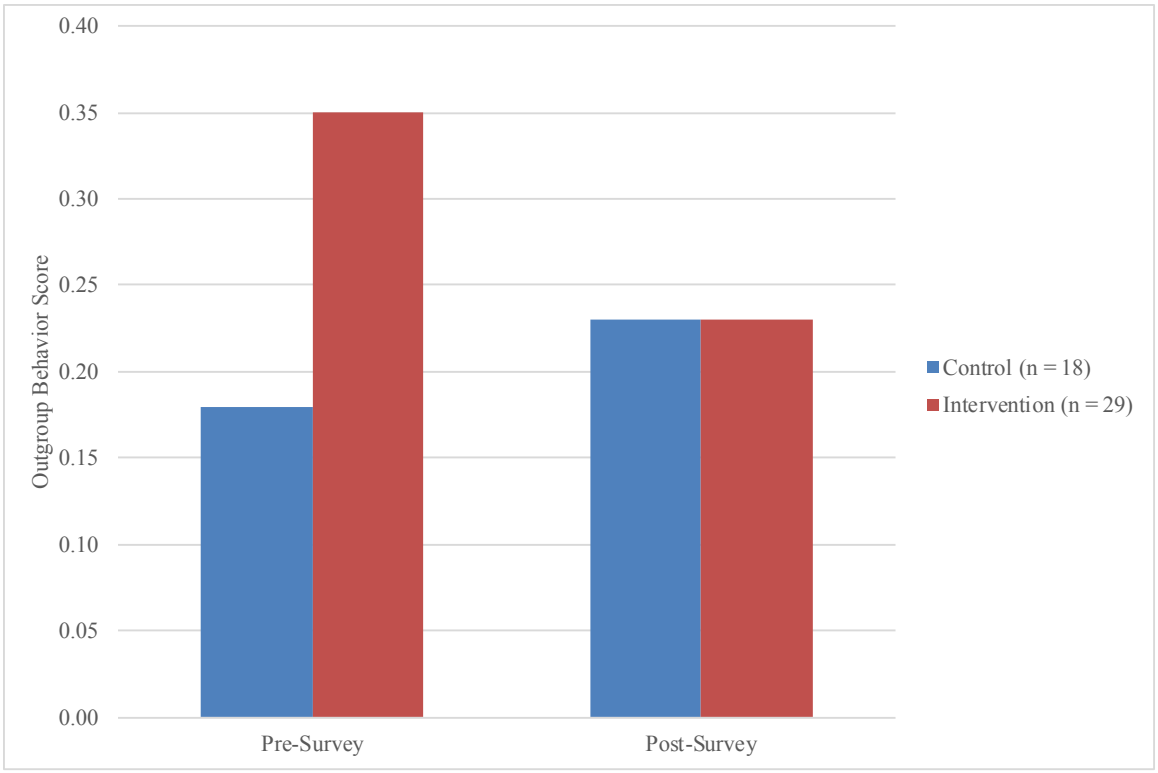


Figure 3. Outgroup behavior across time and group for Asian Americans. Outgroup behavior scores were calculated by subtracting the average of scores on questions about behavior towards outgroup members from the average of scores on questions about behavior towards ingroup members. Therefore, higher scores indicate a preference for the ingroup.

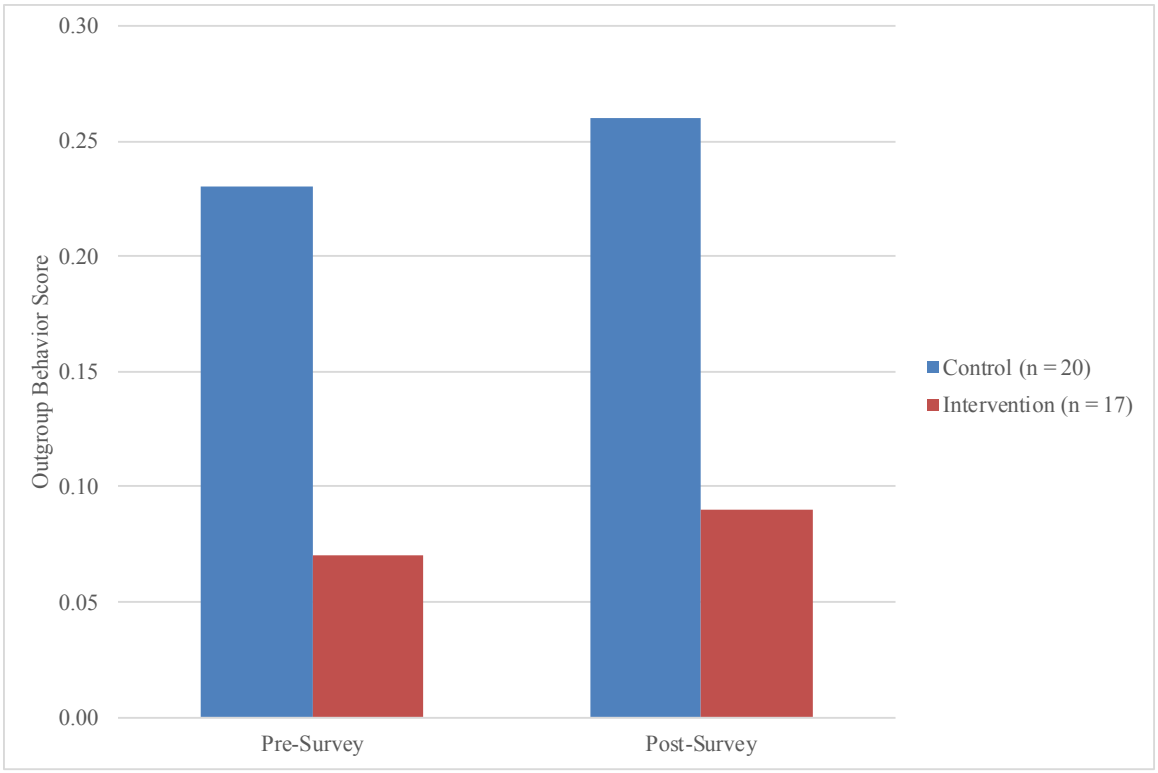


Figure 4. Outgroup behavior across time and group for European Americans. Outgroup behavior scores were calculated by subtracting the average of scores on questions about behavior towards outgroup members from the average of scores on questions about behavior towards ingroup members. Therefore, higher scores indicate a preference for the ingroup.

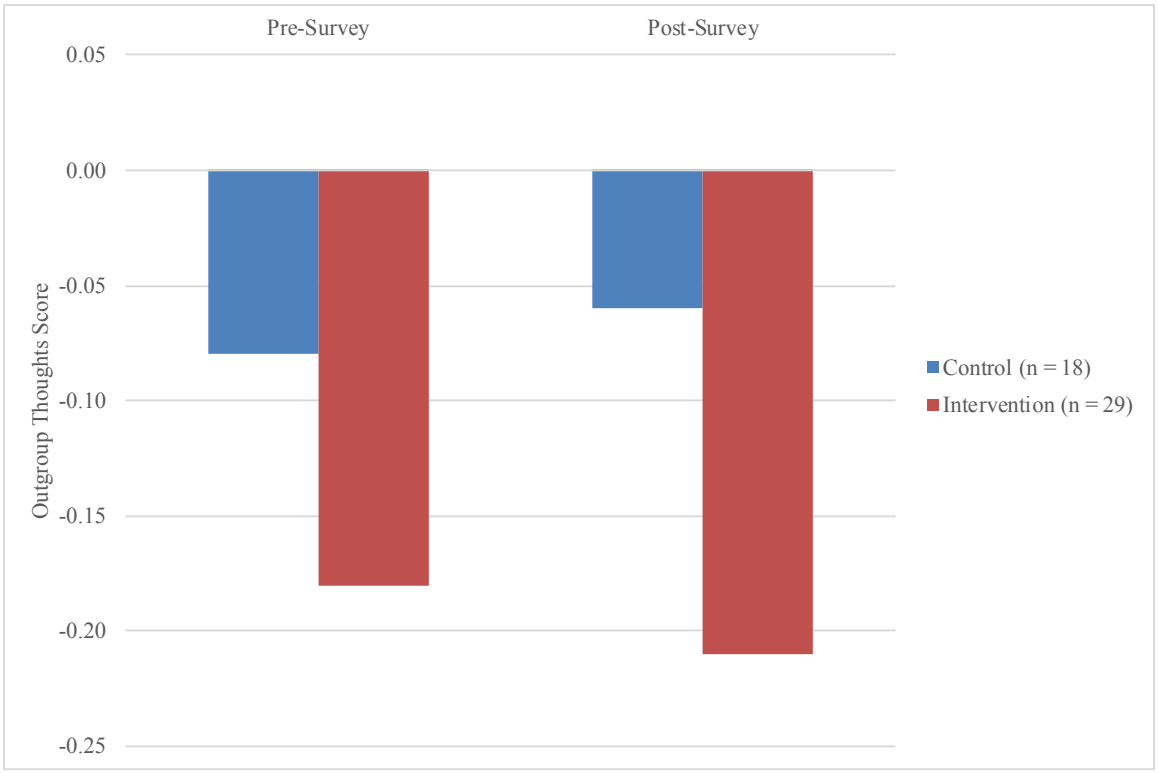


Figure 5. Outgroup thoughts across time and group for Asian Americans. Outgroup thoughts scores were calculated by subtracting the average of scores on questions about thoughts towards outgroup members from the average of scores on questions about thoughts towards ingroup members. Therefore, more positive scores indicate a preference for the ingroup. Negative scores indicate a preference for the outgroup.

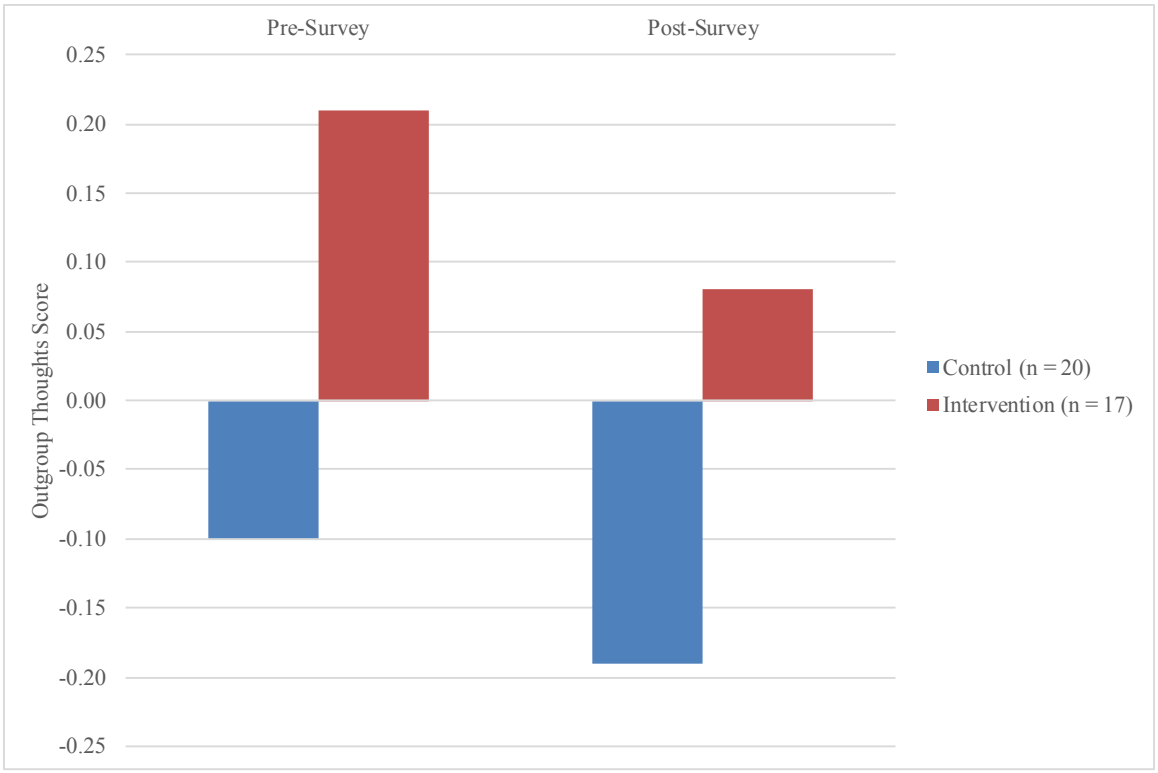


Figure 6. Outgroup thoughts across time and group for European Americans. Outgroup thoughts scores were calculated by subtracting the average of scores on questions about thoughts towards outgroup members from the average of scores on questions about thoughts towards ingroup members. Therefore, more positive scores indicate a preference for the ingroup. Negative scores indicate a preference for the outgroup.

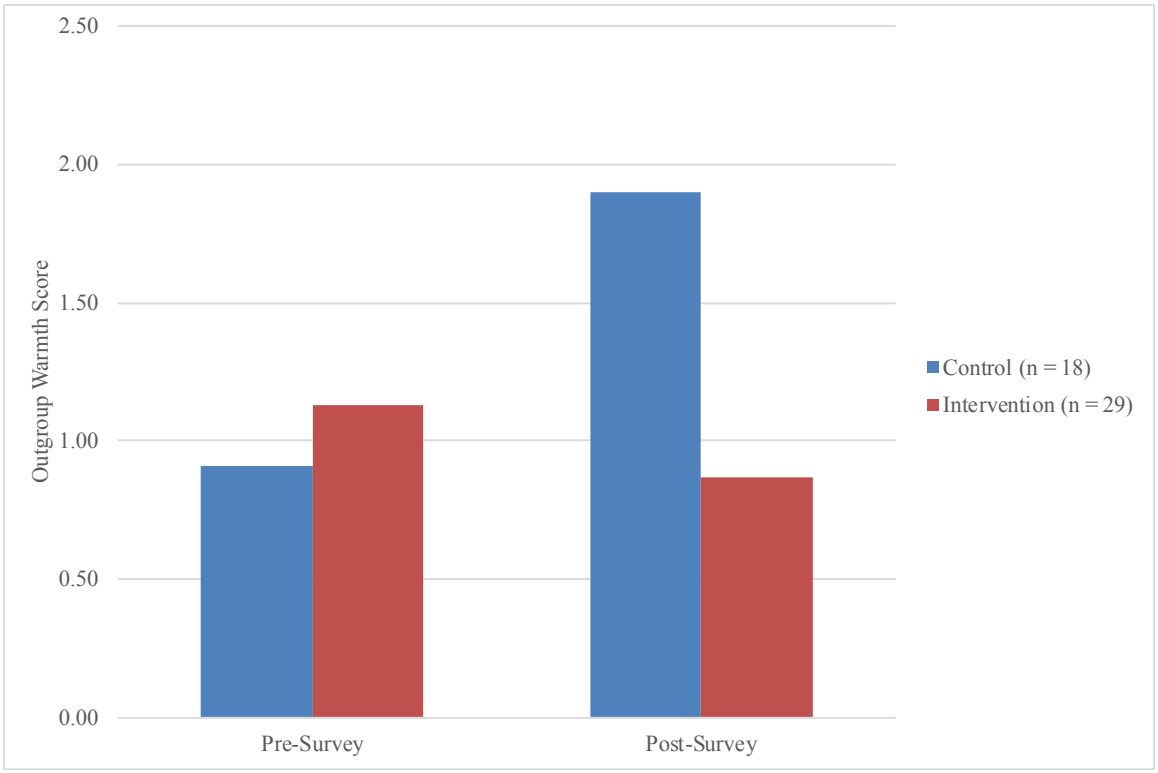


Figure 7. Outgroup warmth across time and group for Asian Americans. Outgroup warmth scores were calculated by subtracting the average of scores on questions about warmth towards outgroup members from the participant's score on the question about warmth towards ingroup members. Therefore, more positive scores indicate a preference for the ingroup. Negative scores indicate a preference for the outgroup.

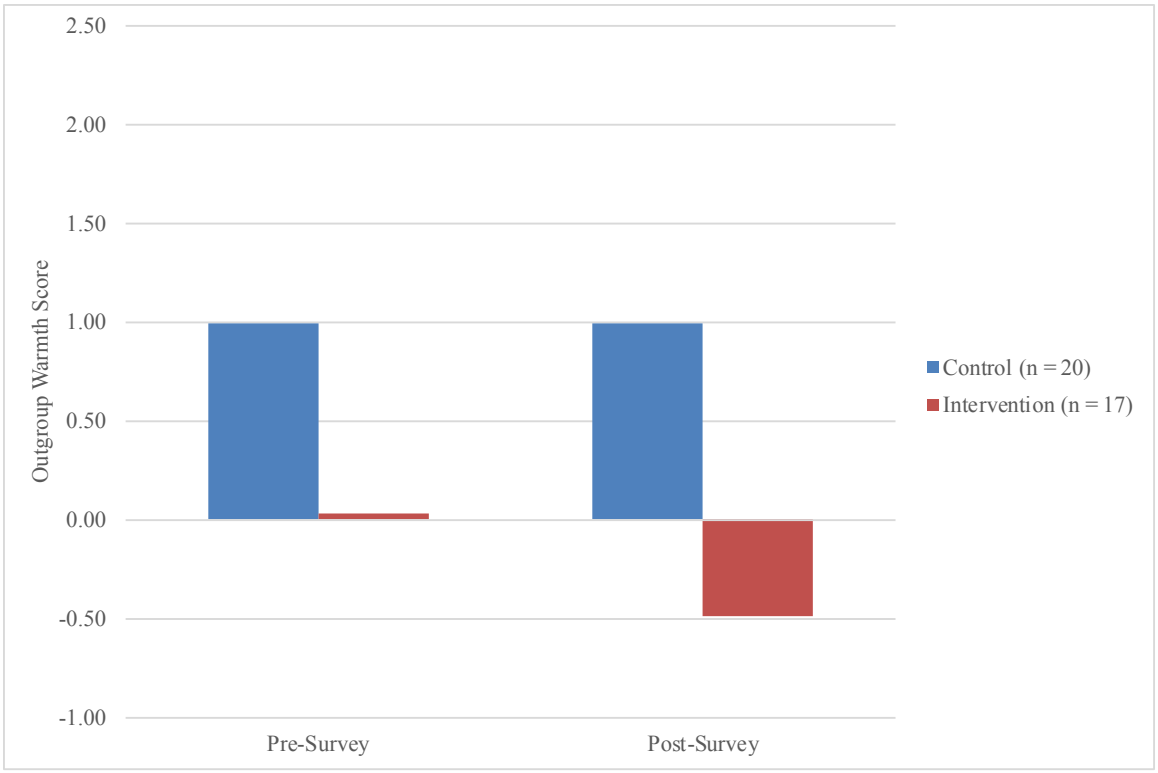


Figure 8. Outgroup warmth across time and group for European Americans. Outgroup warmth scores were calculated by subtracting the average of scores on questions about warmth towards outgroup members from the participant's score on the question about warmth towards ingroup members. Therefore, more positive scores indicate a preference for the ingroup. Negative scores indicate a preference for the outgroup.

Appendix

Fast Friends Task (adapted)

Set I.

1. If you could choose anyone in the world, who would you want as a friend? Why?
2. Would you like to be famous? For what? How would your life change?
3. Would you rather play a game with someone more or less skilled than you? Would your answer be different if others were watching?
4. What would be a "perfect" day for you?
5. Do you do more listening or talking? What would it be like if you did the opposite?
6. If you were able to live to the age of 90 and have either the mind or the body of a 30- year old for the last 60 years of your life, which would you want? Why?
7. If you could take a one-month trip anywhere in the world, where would it be and why?
8. Would you accept $1,000 to shave your head and continue your normal activities (without a hat or wig) until your hair grew back? Why or why not?

Set II.

1. If you were locked in a time machine set for a single, one-way trip to the past or the future, when and where would you go? Why?
2. Name three things you and your partner appear to have in common.
3. For what in your life do you feel most grateful? Why?
4. When you tell about something that has happened to you, do you typically exaggerate? If so, why?
5. Take 2 minutes to tell your partner your life story in as much detail as possible. Include details about where you were born, your family, and some interesting facts about you.
6. If you could wake up tomorrow having gained any one quality or ability, what would it be and why?
7. If you had to spend the next 2 years in Antarctica with just one other person, who would you pick and why?
8. Which would you rather have—your picture on a postage stamp, your statue in a park, a college named after you, or a Nobel Prize? Why?

Set III.

1. What is your most treasured memory?
2. If a crystal ball could tell you the truth about yourself, your life, the future, or anything else, what would you want to know?
3. Is there something you've dreamed of doing for a long time? Why haven't you done it?
4. What could someone figure out about you by the friends you've chosen?
5. What do you value most in a friendship?
6. What is your most terrible memory?
7. Share with your partner an embarrassing moment in your life.

8. If you were going to become a close friend with your partner, please share what would be important for him or her to know about you.

Set IV.

1. What do you like best about your life? Least?
2. If you had to communicate with your friends using ONLY one of the following--phone, text, e-mail, or social media—which would you choose, and why? How do you think it would change your relationships?
3. Is it hard for you to ask for help? If so, what about it bothers you the most?
4. Alternate sharing something you consider a positive characteristic of your partner. Share a total of 4 items (2 each)
5. What, if anything, is too serious to be joked about? Why?
6. Your house catches fire. After saving your loved ones and pets, you have time to safely make a final dash to save any one item. What would it be? Why?
7. When is the last time you laughed really, really hard? What was so funny?
8. If you could wake up tomorrow in the body of someone else and start living their life, would you do it? Who would you pick and why?

Set V.

1. Would you be willing to eat a bowl of live crickets for $5,000? What is the least amount of money you would take to do this?
2. Make 3 true "we" statements each. For instance, "We both dislike…"
3. If your friends were willing to honestly tell you what they thought of you, would you want them to? What do you think they might say?
4. Can you be counted on to do what you say you will do? What does it take for you to trust somebody?
5. Tell your partner something that you like about yourself.
6. Who are you closest to in your family? Is there anybody in your family with whom you wish you had a closer relationship?
7. What do you hope your life will look like in 10 years? 20 years? Be specific. Where would you like to live? What would you like to be doing?
8. Tell your partner something that you like about them. Be very honest this time, saying things that you might not say to someone you've just met.