Efficacy of the Fast Track Friendship Group Program for Peer-rejected Children: A Randomized-controlled Trial

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Abstract:

Objective: To evaluate the benefits of the Fast Track Friendship Group program implemented as a stand-alone school-based intervention on the social cognitions, social behavior, peer and teacher relationships of peer-rejected students.

Method: Over four successive years, 224 peer-rejected elementary students (57% White, 17% Black, 20% Latinx, 5% multiracial; 68% male; grades 1 – 4; M_{age} = 8.1 years old) were identified using peer sociometric nominations and randomly assigned to the intervention (n = 110) or a treatment-as-usual control group (n = 114). Four school districts serving economically-disadvantaged urban and rural communities participated. Intervention involved weekly small group social skills training with classmate partners, with sessions tailored to address individual child needs. Consultation meetings held at the start and mid-point of intervention were designed to help teachers and parents support the generalization of targeted skills.

Results: Multi-level linear models, with children nested within schools (controlling for demographics and baseline scores) documented improvements in social-cognitive skills (direct assessments of emotion recognition and competent social problem-solving), social behavior (teacher ratings of social skills and externalizing behavior), and interpersonal relationships (peer sociometric nominations of peer acceptance and friendships, teacher-rated student-teacher closeness). Significant effects were generally small (*d*s = .19 to .36) but consistent across child sex, grade level, and behavioral characteristics.

Conclusions: The intervention proved feasible for high-fidelity implementation in school settings and produced significant improvements in the social adjustment of peer-rejected children, validating the approach as a school-based Tier 2 intervention.

Key words: Social skill training, peer rejection, school-based intervention, emotional and behavioral disorders, sociometric methods

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Most children develop foundational social-emotional skills during the preschool years and enter elementary school ready to form friendships, regulate their classroom and social behavior, manage conflicts peacefully, and establish positive peer relationships (Parker et al., 2006; Pepler & Bierman, 2018). Approximately 15% of children, however, struggle to get along with peers in elementary school, setting into motion a negative developmental cascade involving peer rejection and social skills deficits that become entrenched over time (Ettekal & Ladd, 2015; Gresham et al., 2004). In the context of multi-tiered systems of support in schools, these students qualify for Tier 2 (selective) interventions, designed to promote the school success of students at heightened risk of maladjustment for whom Tier 1 (universal) classroom interventions provide insufficient support (Farmer et al., 2021; Lane et al., 2003).

Small group social skills training (SST) has proven effective as an intervention that can help children acquire social skills (Gresham, 2016). Correspondingly, schools often report using SST as a targeted Tier 2 intervention, with teachers or other school personnel creating individualized training programs based upon their observations of a student's behavioral deficits (Bruhn et al., 2014; Majeika et al., 2020). Research suggests that a major limitation of SST, however, is that most programs show limited generalization with weak to null effects on classroom behavior and peer relations (Gresham, 2016). The most common complaint raised about SST by school personnel is that "students don't use the social skills outside of the group" (Rodriguez et al., 2016). Evidence-based Tier 2 programs are needed, designed for school-based implementation and effective at improving classroom behavior and interpersonal relationships (Majeika et al., 2020; Rodriguez et al., 2016). This study addressed this need by testing the Fast

Track Friendship Group SST program (hereafter "Friendship Group"; Bierman et al., 2017) which was adapted for use in school settings to improve the social behavior and interpersonal relationships of peer-rejected children. Its impact as a stand-alone intervention was evaluated for the first time using a rigorous randomized controlled design with multi-method measures of children's social cognitions, behavioral adjustment, and relationships with peers and teachers.

Peer Rejection and Social-emotional Skill Deficits

Peer relationships play a unique role in social-emotional development, providing an egalitarian context that supplies companionship and supports the acquisition of key social-emotional skills, including social engagement, cooperation, self-regulation, and social problem-solving skills (Ettekal & Ladd, 2015). Approximately 15% of elementary school children experience serious difficulties in establishing positive peer relationships, missing out on these positive developmental experiences and facing exposure to rejection, social exclusion, and victimization (Pepler & Bierman, 2018). Children who are chronically rejected (named by many classmates as "liked least" and few classmates as "liked most") demonstrate heightened behavior problems and emotional distress (Ettekal & Ladd, 2015). Children can be rejected for various reasons, including their physical appearance, but most often their social skills deficits and problematic social behaviors elicit peer dislike. Subsequently, rejection processes and negative peer reputations evoke counter-aggression or avoidance, precipitating increases in externalizing and internalizing problems (He et al., 2018). School becomes stressful, and peer-rejected children transition into adolescence with heightened feelings of loneliness, anxiety, and/or angry resentment that contribute to chronic absenteeism, low graduation rates, and elevated risk for psychopathology (Ve´ronneau et al., 2010). The stability of peer rejection and its negative developmental sequelae highlight the need for prevention in elementary school (He et al., 2018).

Rejected children are heterogeneous in terms of the problem behaviors they display, with over half characterized by externalizing behaviors, including aggressive and impulsive-hyperactive behaviors (Cillessen et al., 1992; Waas, 2006) and others presenting with social withdrawal or atypical social behaviors (Schwartz et al., 2001). Children with more severe and mixed behavior problems are especially likely to experience peer rejection (Farmer et al., 2002). Despite this behavioral heterogeneity, most peer-rejected children show common difficulties reflecting a failure to acquire or effectively perform the prosocial behaviors, communication skills, and social problem-solving skills that sustain positive peer relationships and prevent peer censure (Ettekal & Ladd, 2015). Many peer-rejected children experience family adversities (Wagner et al., 2005) and have difficulties regulating emotions and inhibiting reactive behaviors (Parker et al., 2006), creating a need for interventions that promote self-regulation and stress management skills along with positive behaviors (Bierman & Sanders, 2021).

Evidence-Based SST Programs

SST programs were developed and tested initially in the 1980s and 1990s, producing a strong body of research (Gresham et al., 2004). Effective programs use cognitive-behavioral strategies including instructions, discussions, and modeling to build skill concepts, followed by opportunities for role-play or in-situ behavioral practice with performance feedback and positive reinforcement to support skill performance (Gresham, 2016). Commonly targeted skills include social behaviors that are correlated with peer acceptance, including prosocial behaviors, communication skills, and rule-governed play (Bierman & Sanders, 2021). Informed by developmental research, many SST programs also focus on the thinking skills underlying effective social functioning (e.g., accurate social perceptions, non-hostile attributions, flexible

social problem-solving), and more recently, on emotional understanding and emotion regulation skills to enhance empathy and self-control (Bierman & Sanders, 2021; Ratcliffe et al., 2014).

Extensive research supports the effectiveness of the SST approach at promoting the *acquisition* of targeted social skills. For example, Gresham (2016) described 12 narrative reviews and 9 meta-analyses conducted since 1985 that validated the positive impact of SST on skill acquisition. Average effect sizes were in the small to medium range, reflecting improvement for approximately 65% of the children who receive intervention relative to 35% of the controls (Gresham et al., 2004). At the same time, SST programs have proven less effective at promoting generalized increases in social skill *performance*, reflected limited impact on classroom behavior and peer relationships (Gresham, 2016; Mikami et al., 2010). For example, in their meta-analysis of SST interventions, Beelman et al. (1994) documented medium to large average effects on skill acquisition measured with tests of social-cognitive skills (d = .83) and observations of targeted behaviors (d = .49). However, effects were typically small and often non-significant for measures of generalized social and behavioral improvements including teacher ratings of social adjustment (d = .10) and peer sociometric nominations (d = .13).

The Friendship Group program was developed initially for children exhibiting high rates of aggression at school entry, designed to promote their social-emotional skills, reduce externalizing problems, and improve their peer relationships (Bierman, 2020). It was first evaluated in the context of the multi-component Fast Track prevention program in the 1990s, with SST conducted during group sessions held outside of the school day. The program was subsequently revised for more flexible use in elementary school settings with heterogeneous groups of peer-rejected children (Bierman et al., 2017). This study represents the first

randomized-controlled trial of Friendship Group used as a "stand-alone" intervention implemented as an in-school program.

Friendship Group Features Designed to Enhance Generalization

Friendship Group used the SST strategies that have proven effective at building social skills in past research (Gresham, 2016) with several additional features designed to enhance the generalization of program effects. First, normative classmates served as peer partners in the SST sessions, to better align the training context with naturalistic classroom and playground peer interaction contexts (Pelham & Fabiano, 2008). Past research has demonstrated that including aggressive, socially-impaired peer partners in SST sessions can inadvertently model and reinforce problematic social behaviors and undermine therapeutic impact (Ang & Hughes, 2002), whereas the inclusion of normative classmates can foster positive interactions that enhance the peer reputations of rejected children and help them build new friendships with classmates (Bierman, 1986; Bierman et al., 1987).

Informed by prior SST research, Friendship Group provided manualized sessions to guide high-fidelity implementation (Sanders & Bierman, 2021). In addition, based on case studies illustrating the benefits of individualized SST (Lane et al., 2003), Friendship Group also included opportunities to tailor activities within sessions to increase support in areas of student-specific skill deficits (Kern et al., 2020; Lane et al., 2003). Session guidelines and activities targeted six modules: 1) prosocial engagement and friendship skills, 2) communication skills, 3) emotion regulation and behavioral self-control, 4) responsible social behavior (fair play, good sportsmanship), 5) social problem-solving skills, and 6) stress management. Within modules, content was adjusted developmentally, with sessions for younger elementary children (grades 1-2) focused on more behavioral skills and sessions for older elementary children (grades 3-4)

including more complex meta-cognitive skills such as stress management and coping skills. Group leaders proceeded through the program in a standardized manner that followed a developmental sequence, individualizing program emphasis by limiting or expanding the number of practice activities utilized in the different modules. Group leaders also repeated activities within sessions when children needed more practice to fully master the target skills.

Efforts were also made to increase parent and teacher involvement in SST to enhance generalized program impact. Research on Tier 2 interventions suggests greater impact when teachers support the programming and include generalization supports in the classroom (Lochman et al., 2009). Improving teacher attitudes toward and support for rejected children may be an especially important way to foster positive behavior change in the classroom (Mikami et al., 2021). Longitudinal research has linked supportive, non-conflictual student-teacher relationships with growth over time in both cooperative classroom behavior (Roorda et al., 2011) and positive sociometric nominations (DeLaet et al., 2014; Hughes & Im, 2016). Teachers model positive (and negative) interactions with rejected children and can use grouping strategies and management strategies that facilitate (or impede) their opportunities for positive peer interaction opportunities (Farmer et al., 2011; Mikami et al., 2010). Coaching teachers in supportive interaction strategies has significantly improved the classroom behavior of disliked children with externalizing problems (Mikami et al., 2021). Friendship Group sought to involve teachers as collaborating intervention supports for SST, in order to fostering positive changes in teacher attitudes and student-teacher relationships.

Less research is available regarding the value of parent collaboration in SST, but researchers have postulated that parent support and reinforcement for targeted skills fosters skill performance and generalization (DeRosier et al., 2011). The families of rejected children often

face multiple stressors, including socioeconomic disadvantage, single-parenthood, and unemployment (Wagner et al., 2005), creating a need to customize home-based strategies for supporting child social skills in ways that fit individual family contexts and preferences.

The Present Study

There is a pressing need to identify evidence-based SST programs that can be implemented effectively in schools and improve the social behavior and peer relations of rejected children (Bruhn et al., 2014). Friendship Group used evidence-based SST methods and included normative classmate partners, manualized presentations with individual tailoring, and teacher and parent collaboration to enhance program impact. This study evaluated the benefits of the Friendship Group program implemented in school settings using a rigorous randomized-controlled design. To retain external validity as a Tier 2 intervention, groups were led by individuals with experience working in schools but without specialized degrees (e.g., a para-educator, preschool teacher, and classroom teacher).

Peer-rejected students were identified with sociometric surveys and randomized to the intervention condition or to a “usual practice” comparison condition. It was hypothesized that Friendship Group would promote: 1) enhanced social-cognitive skills, 2) increases in positive social behaviors and reductions in externalizing and internalizing problems in classroom settings, and 3) improved interpersonal relations (improved student-teacher relationships; increased peer acceptance and friendships; reduced peer rejection).

This study also evaluated the extent to which child characteristics affected intervention impact. Prior research has suggested that SST impact may be affected by child age, sex, and concurrent behavior problems (Gates et al., 2017). For example, younger children may show more behavior change (McMahon et al., 2013), whereas older children more easily learn

complex, metacognitive skills (Herbrecht et al., 2009). Some prior studies suggest that girls improve more than boys (McMahon et al., 2013), anxious-withdrawn children improve more than aggressive children (Lösel & Beelman 2003; Quinn et al., 1999; Schneider, 1992), and children with attention deficit hyperactivity disorder are generally less responsive to SST (Antshel & Remer, 2003) whereas children on the autism spectrum are generally more positively responsive (Gates et al., 2017). Hence, the present study also explored potential moderation of intervention effects by child sex, grade level, and rates of pretreatment aggression, hyperactivity-inattention, and autism spectrum features.

Method

All study procedures followed the American Psychological Association standards for the ethical conduct of research and had the approval of the university IRB (00002756).

Sample Selection

Study participants were selected based on sociometric nominations. Each year for four consecutive years, all students in participating classrooms (grades 1 – 4) in 16 elementary schools in 4 school districts were invited to take a sociometric survey, although parents or children could opt out. Participation rates were generally high (M = 87%, range = 65% to 100%), well above the 50% minimum recommended by McKown et al. (2011). The survey was administered via computer; children listened to questions via headphones and responded individually. They were presented with a list of the students in their classroom and could make unlimited selections. Nominations for “liked most” (LM) and “liked least” (LL) peers were standardized within class. Sample selection was based on social preference scores reflecting levels of both peer liking and disliking (LM – LL, restandardized within class), generally

considered the "gold standard" for identifying peer-rejected children (McKown et al., 2011; van den Berg et al., 2015).[1]

The study goal was to recruit the most peer-rejected child in each classroom, creating a sample of children experiencing significant peer difficulties. To do so, recruitment efforts started with the child who had the lowest social preference score in each class and proceeded until parent consent for study participation was obtained for one child from each classroom. In 19 classrooms two children had equivalent social preference scores (e.g., within .25 standard deviations) and a 3-item teacher screen (reflecting concerns about child social skills, peer relations, behavior problems) was used to determine rank order. Students were excluded from the study if they were not rejected by their peers or were less rejected than a recruited classmate (n = 4264), or they had a full-time special education classroom placement, limited English language skills, or a family move planned during the year (n = 25). Most participants in the final sample had the lowest (75%) or second lowest (22%) social preference score in their classroom. All participants met criteria for peer-rejected status (i.e., social preference standard score of less than -1.0, LL score greater than 0, and LM score less than 0) except for one child whose social preference score was -0.96 (see Figure 1 for participant flow diagram).

Participants

Participants included 224 peer-rejected elementary school students (57% White, 17% Black, 20% Latinx, 5% multiracial; 68% male). Children in the sample had a mean social preference score of -1.79 (SD = 0.44, range = -3.07 to -0.96). They were distributed across the grade levels (23% in first grade, 39% in second grade, 21% in third grade, 17% in fourth grade)

[1] Social preference scores were used to identify the sample because they provided a single score that encompasses both positive and negative aspects of peer evaluations. Subsequent analyses examined LM and LL scores separately to better understand intervention effects on positive vs. negative dimensions of peer relations.

and were, on average, 8.1 years old (SD = 1.1, range = 6.2 to 10.9). Teacher ratings showed high levels of behavior problems including significantly elevated externalizing problems (62%) or internalizing problems (43%) based on the Social Skills Improvement System (SSIS, Gresham & Elliott, 2008). One-third of the children in the sample had Individualized Education Programs (IEPs) reflecting special education needs. Parent education levels reflected low socio-economic status for many of the families (high school education or less, 81% fathers, 64% mothers; some post-high school training, 13% fathers, 25% mothers; 4-year college degrees, 6% fathers; 11% mothers). Slightly more than half of the parents (58%) were married or living with a stable partner; 42% were single parents.

Procedures

Children were formally enrolled in the study after parents provided informed consent; children were then stratified by school district and randomized to condition at the individual level within district using a random numbers table. Teachers were sent rating forms through Qualtrics to describe the social behavior of these students and their relationships with them (measures described below). Children were assessed individually using the SEL Web social-cognitive assessment program (McKown et al., 2016). Parental consent allowed the linking of sociometric data to individual assessments.

Sociometric screening and pretreatment assessments took place at the start of the academic year (October-November). Intervention began in November and continued through April. Posttest assessments took place near the end of the school year (April – May) and included a re-administration of the sociometric survey, social-cognitive assessments, and teacher ratings administered at pretest.

Measures

Social-cognitive Skills

Three aspects of children's social-cognitive skills (emotion recognition, self control, and competent problem solving) were measured using the computer-administered SELWeb program (McKown et al., 2016) with prompts and pictures that were independent of any used during the intervention. In the *emotion recognition* module, participants viewed photographs of children displaying happy, sad, angry, and scared feelings. Each emotion was depicted in 5 photographs that ranged in intensity of expression. In the *self-control* module, children could earn more points in a video game by selecting slower rockets (rather than faster rockets) and they also completed a frustration-tolerance task that assessed their willingness to keep trying when computer keys stopped working. Analyses used SELWeb age-normed scores, equivalent to z-scores based on national samples. In the *social problem-solving* module, children watched 10 vignettes depicting social problems (ambiguous provocation and peer entry), and their score was the percent of competent solutions selected as the best choice. Prior research has documented good internal consistency for these modules (α ranged from .78 to .85) and evidence of concurrent and discriminant validity (McKown et al., 2016).

Social Behavior

Teachers rated student social skills, externalizing problems, and internalizing problems on the SSIS (Gresham & Elliott, 2008), using a 4-point scale (never = 0 to almost always = 3). In each case, the summed score was analyses. Social skill scales tapped communication skills, empathy, social engagement, cooperation, responsibility, self-control skills, and assertion (46 items; α_{pre} = .91; α_{post} = .94). The externalizing problem scale reflected bullying and hyperactivity-inattention (e.g., bullies others, fights with others, acts without thinking, has temper tantrums; 12 items, α_{pre} = .91, α_{post} = .91). The internalizing problem scale described

social withdrawal and sad/anxious affect (e.g., withdraws from others, acts sad or depressed; 7 items; α_{pre} = .79, α_{post} = .82).

Peer nominations describing social behavior were collected in the sociometric survey described above (van den Berg et al., 2015). Nominations for "is friendly and nice to everyone" and "cooperates, helps, shares, and takes turns" were averaged to reflect prosocial behavior. Nominations for "starts fights, does mean things, or teases others" and "says mean things about others" were averaged to reflect aggressive behavior. Analyses used a proportion score, reflecting the number of classmates who nominated a child for each item divided by the total number of raters in that child's classrooms.

Interpersonal Relationships

Teachers completed the brief version of the Student-Teacher Relationship Scale (STRS; Pianta, 2001), describing the closeness they felt in their relationship with study participants (e.g., I share an affectionate, warm relationship with this child; 8 items; α_{pre} = .83, α_{post} = .87), and the conflict they experienced (e.g., this child and I always seem to be struggling with each other; 7 items; α_{pre} = .89, α_{post} = .91). All items were rated on a 5-point scale (from 1 = definitely does not apply to 5 = definitely applies) and summed scale scores were used in analyses.

Teachers also rated the quality of peer relations using the *Child Behavior Scale* (Ladd & Profilet, 1996). Using a 6-point scale (1 = almost never to 6 = almost always), they rated 6 items describing positive peer relations (e.g, had friends, frequently chosen as a playmate) and negative peer relations (were disliked, left out, or teased). Positive items were reverse-coded, so that the summed total represented problematic peer relations (α_{pre} = .87, α_{post} = .82).

Peer nominations were included to assess levels of peer liking (like most) and disliking (like least). In addition, classmates identified children in the class who were their friends.

Moderators

In addition to child grade level (reported by teachers) and child sex (reported by parents), pretreatment scores on the SSIS scales reflecting three behavioral characteristics (aggression, hyperactivity-inattention, and autism spectrum features) were tested as potential moderators of intervention effects.

Intervention

Group Sessions

The Friendship Group manual includes a total of 36 scripted lessons (22 lessons for children in grades 1-2; 14 lessons for children in grades 3-4). Each session starts with activities designed to promote skill acquisition by presenting models (e.g., discussions, examples, role plays) that define, explain, and illustrate the target skill. These activities are followed by opportunities to practice the skills in cooperative activities and collaborative challenges, with positive reinforcement and corrective performance feedback designed to refine skill performance. The program includes session handouts for teachers and parents that describe the target skill and provide suggestions for generalization support at school and at home. Within each grade level, lessons are arranged along a progression, with initial sessions emphasizing foundational interaction skills (i.e., prosocial engagement, communication skills, emotion regulation, and behavioral self-control). Later sessions take on skills needed to manage peer difficulties, including problem-solving, conflict resolution, stress management, and coping skills. More information about the intervention modules and logic model are available in the on-line supplementary materials (Table S1, Figure S1.)

In this study, group leaders followed the progression of the written Friendship Group program but tailored the pace by using more or fewer of the practice activities in different

modules to provide individualized levels of practice and support to children based upon their needs. They also extended sessions in skill domains representing areas of child need, repeating activities that proved difficult for individual children or creating activities that were like those that proved challenging in order to provide more practice opportunities. Tailoring decisions were made by group leaders in consultation with the program supervisor, based upon pre-intervention assessments, mid-point teacher input, and group leader observations of child skill performance during intervention sessions. More information about the intervention is included in the on-line supplementary materials.

Normative classmates (identified by the teacher as potential friends for the targeted rejected children) participated as rotating partners in SST sessions. This created opportunities for positive interactions with multiple classmates, designed to promote positive changes in peer reputations, foster new friendships, and enhance generalization of the trained social interaction skills to other school settings. SST sessions were held during the school day in a space separate from the classroom (e.g., counselor's office, cafeteria, library).

Teacher and Parent Collaboration

Group leaders held individual meetings with parents and teachers at the start of the program and at the mid-point. At the initial meeting, group leaders presented and discussed a summary report of child social strengths and needs based on the pre-intervention assessments. Following the model of the Family Check-Up (Dishion & Stormshak, 2007) and Classroom Check-Up (Reinke et al., 2009) approach, data were presented on a "Friendship Check-up" form aligned with the intervention domains. After discussing the data, group leaders worked with teachers and parents to identify individualized goals and strategies to enhance cross-setting reinforcement and support. These meetings were repeated at the mid-point of the year.

Group leader Training and Implementation Support

Two of the group leaders had prior experience leading the Friendship Group intervention; one as a para-educator and one as a prekindergarten teacher. The third group leader was an elementary classroom teacher who had prior experience with social-emotional learning programs. They participated in three days of training during the first year of the project, and a one-day booster training in each of the subsequent years. Initial training also included co-leading pilot Friendship Group sessions at a summer program to provide hands-on experience with the program while receiving supervisor feedback. The program supervisor was a certified Friendship Group trainer with extensive experience implementing the intervention and supervising others. She held bi-weekly supervision calls and visited groups in schools during the study trial to rate implementation quality and provide feedback to group leaders.

Plan of Analyses

Preliminary analyses included a description of implementation quality and an assessment of the success of randomization in producing intervention and control groups that were equivalent on demographic characteristics and pre-assessment measures. Then generalized linear multilevel models were conducted (SAS Proc Mixed) to evaluate intervention impact on outcomes. Models included child characteristics (sex, teacher screen score) and study design features (cohort, grade level) as level 1 covariates along with the pre-treatment score on the outcome measure. Schools were represented at level 2 to reflect the nesting of children in schools. Because there was only one rejected target child selected from each classroom, it was not necessary to nest participants within classroom. After evaluating the main effects of intervention, potential moderators were evaluated by adding interaction terms to these regressions. In separate analyses, effects of child sex, grade level (1-2 versus 3-4), rates of

pretreatment aggression, hyperactivity-inattention, and autism spectrum characteristics were each evaluated as potential moderators of intervention impact on each outcome.

Results

Intervention Implementation

Most children received a full set of social skill training sessions (M = 24.60, SD = 2.49 for children in grades 1-2; M = 21.60, SD = 3.27 for children in grades 3-4). Ratings of SST implementation fidelity were made by the supervisor during field observations (5-6 observations of each group leader each year of the program). Mean ratings were "excellent" for preparedness and session adherence (3 items, M = 3.97, SD = 0.59), between "excellent" and "very good" for the use of positive behavioral support strategies during group sessions (6 items, M = 3.49, SD = 0.62), and "very good" for use of therapeutic processes such as emotion coaching and problem-solving dialogue (3 items, M = 3.03, SD = 0.71). Overall, 95% of the parents and 91% of the teachers attended at least one planning meeting with group leaders; 57% of the parents and 58% of the teachers attended both meetings.

We also examined teacher reports of additional social-behavioral interventions the study participants received. Across conditions, two-thirds of the teachers reported using a Tier-1 social-emotional learning or character development program in the classroom. In the control group "treatment as usual" involved SST or anger management training for 33% of the children and behavioral management programming (Daily Report Card, Check in-Check out, sticker/point system) for 55%. Teachers also reported using a behavior management program for 50% of the intervention group children.

Preliminary Analyses

T-tests comparing the intervention and control groups on demographic characteristics and pre-intervention assessments revealed no statistically significant differences and only one (of 14) approached significance (see Table 1), reflecting successful randomization. Correlations among outcomes were generally small or moderate in value (see Table 2). Strong correlations ($r > .50$) were most often within rater, including teacher-rated externalizing behavior with student-teacher conflict ($r = .83$), and peer-nominated "friends" with "like most" ($r = .59$) and prosocial ($r = .59$). Teacher-peer correlations were moderate for externalizing problems ($r = .58$) and lower for prosocial behavior ($r = .25$) and peer relations ($r = .18$ to $.31$).

Intervention Outcomes

Social-cognitive Skills

Multilevel regressions evaluated intervention effects on three measures of child social-cognitive skills: emotion recognition, competent problem-solving, and self-control. Effect sizes for each outcome were calculated by dividing the difference in adjusted means for children in the intervention and control conditions by the pooled standard deviation of the outcome across condition, comparable to a Cohen's *d*. As shown in Table 3, the intervention produced significant increases in emotion recognition scores (ES = .21, $p = .04$) reflecting an average level of improvement of one-fifth a standard deviation for children in the intervention group relative to one-tenth of a standard deviation for those in the control group. A marginally significant increases was evident for competent problem solving (ES = .21, $p = .06$) reflecting an average increase of 10% in competent solutions offered by intervention group children relative to 5% offered by control group children. Cognitive self-control skills were not significantly affected by the intervention.

Social Behaviors

In the domain of social behavior, the intervention produced statistically significant increases in teacher-rated social skills on the SSIS (ES = .24, p = .03; see Table 4.) Mean ratings increased an average of 2.54 for the control group (reflecting usual practice interventions) and three times that amount (8.08) for the intervention group, reflecting an additional boost of a quarter standard deviation. Intervention also produced significant reductions in teacher-rated externalizing problems (ES = -.19, p = .05). Mean externalizing ratings dropped by 0.22 for the control group with no change in the number of children scoring above the clinical risk threshhold (n = 71). In contrast, mean externalizing ratings dropped by 0.98 for the intervention group, with the number of children scoring above the clinical risk threshhold dropping from n = 66 to n = 51, a reduction of 23%. There were no significant effects on teacher-rated internalizing problems, nor were peer nominations of prosocial or aggressive behavior significantly affected by the intervention.

Interpersonal Relationships

In the domain of relationship quality shown in Table 5, teachers reported significant increases in student-teacher closeness associated with the intervention (ES = .25, p = .03). Teacher ratings revealed an average increase of 2.29 points on this scale for children in the intervention group relative to stable ratings for children in the control group who received usual practice treatment, an effect about one fourth of a standard deviation. Effects on student-teacher conflict were not significant. Teachers also reported marginally significant reductions in peer difficulties including social isolation and victimization (ES = -.20, p = .08). Peer nominations of "like most" and "friends with" both showed significant increases in the intervention compared to the control condition (ES = .36 and .26, p = .01 and .04, respectively); however, no significant intervention effects were documented on "like least" nominations. On average, the proportion of

classmates naming children as someone they "like most" and "friends" increased 5-7% reflecting gains of 1-2 new friends for children receiving intervention, compared to relatively stable scores in the control group.

Exploring Moderation

Exploratory analyses were conducted to determine the extent to which outcome findings generalized across subgroups within the sample. Separate analyses evaluated five potential moderators (child sex, grade level, and pre-intervention levels of aggression, hyperactivity-inattention, and autism spectrum characteristics) on each of the 14 outcomes. In no case did a statistically significant interaction effect emerge between potential moderators and intervention.

Discussion

Peer rejection undermines school engagement and derails social-emotional development (Ettekal & Ladd, 2015), making it a common target for Tier 2 intervention in schools (Bruhn et al., 2014; Kern et al., 2020; Majeika et al., 2020). Despite strong evidence that SST helps children acquire social skills, behavioral improvements often fail to generalize to the classroom and improve peer relations (Beelman et al., 1994; Gresham, 2016). This study tested the efficacy of the Friendship Group program (Bierman et al., 2017) with features designed to strengthen the generalized impact of SST in school settings. The program produced significant improvements in targeted emotion recognition skills and near-significant increases in competent problem-solving. Teacher ratings revealed significant improvements in social skills and student-teacher closeness, as well as significant decreases in teacher-rated externalizing problems and near-significant reductions in teacher-reported peer problems. Peer sociometric nominations documented significant increases in "like most" and "friends with" nominations. However, no significant effects emerged on "like least" peer nominations or peer-nominated prosocial or aggressive

behaviors. Significant effects were generally small (*ds* ranging from .20 on teacher-rated peer problems to .36 on "like most" peer nominations) but were consistent across sample subgroups (child sex, grade level, and pre-intervention levels of aggression, hyperactivity-inattention, and autism spectrum characteristics). These findings support the use of this program as a school-based Tier 2 intervention.

The generalized improvements on teacher-rated behavior and peer sociometric nominations that were observed in this study represent important outcomes that often elude SST programs (Gresham, 2016). Poor peer relations tend to be highly stable and resistant to change (Mikami et al., 2010) due to the significant behavioral and emotional difficulties experienced by rejected children (Schwartz et al., 2001; Waas, 2006) and the negative peer reputations they develop (Farmer et al., 2002). In the following sections, we consider several features of the Friendship Group intervention design that were informed by prior research studies and likely contributed to the positive impact of the program.

SST Program Design Features That May Strengthen Impact

Design features that may have strengthened the impact of the Friendship Group program include the program focus on emotion regulation and stress management skills (along with positive social behaviors), the inclusion of classmates as peer partners, the length of the program and use of individualized tailoring, and the collaboration meetings with teachers and parents.

Focusing on Emotion Regulation and Stress Management Skills

SST programs have often shown efficacy in promoting skill acquisition with the use of instructions, discussions, modeling, and supported behavioral practice (Gates et al., 2017; Gresham, 2016). The ongoing challenge has been to effectively address skill performance deficits (Gates et al., 2017) which are far more prevalent than acquisition deficits and reflect

failures to display learned social skills consistently across the appropriate contexts (Gresham et al., 2010). Limited skill performance can occur when contextual supports (e.g., situational cues and reinforcement contingencies) are insufficient to evoke and reinforce skill performance, making reinforcement-based strategies appropriate for addressing performance deficits (Gresham et al., 2010). In addition, internal factors including social-cognitive biases (threat appraisal, outcome expectations) and emotional arousal can fuel pre-emptive and unskilled responding, essentially over-riding or by-passing thoughtful decision-making about appropriate or expected behaviors (Derella et al., 2019; Dodge et al., 2013). Peer-rejected children often show biased social cognitions and difficulties effectively regulating emotions and inhibiting impulses, contributing to self-centered behaviors in social situations that call for delayed gratification in the service of reciprocity and equity (Parker et al., 2006). In addition, heightened exposure to negative peer treatment increases physiological reactivity, rejection sensitivity, and hostile attributional biases, making it more difficult for rejected children to manage their anger and distress over time (Derella et al., 2019; Will et al., 2016).

Several facets of the Friendship Group program were designed to strengthen children's capacities to effectively regulate their emotions, manage the stressors associated with negative peer treatment, and support thoughtful decision-making in dynamic peer interactions. First, several sessions focus explicitly on skills that facilitate emotion regulation, such as identifying feelings, calming down when upset, expressing feelings, and managing strong feelings. Emotion-focused sessions are embedded within each of the skill modules in the program, illustrating application in the context of communicating with friends, resolving conflicts, handling competition, and managing social stressors such as teasing, exclusion, and bullying. Second, in addition to practice activities that were structured to elicit and support these skills, each session

also included more naturalistic games. The goal was to foster the practice of impulse control and emotion regulation during dynamic and emotionally arousing activities that mirror conditions of naturally-occurring playground peer interactions (Haring, 1992). Third, group leaders were trained to use emotion coaching and problem-solving dialogue during sessions to support children's emotion regulation skill development. Emotion coaching involves encouraging children to share their feelings during sessions, reflecting child feelings, and reframing feelings to support emotional de-escalation and re-orient threat appraisals. Social problem-solving dialogue in conflict situations involves the use of deep breathing to calm down, active listening to help children share their feelings and explain their perspective on the problem, eliciting solutions, and supporting thoughtful decision-making.

The Inclusion of Classmates as Peer Partners

The ways that peers act toward rejected children affects their behavior and often contributes to their social skill performance deficits. Peers actively avoid or exclude rejected children from social interactions and make hostile overtures and responses that fuel emotional distress and counter-aggression (DeRosier & Mercer, 2009). Prior studies have shown that classmates who serve as peer partners during SST sessions develop more positive views of the rejected children they are paired with, including greater liking and more positive responding (Bierman, 1986; Bierman et al., 1987). Classmate partners who develop more positive relationships toward rejected children during SST sessions may, in turn, provide those children with more opportunities and reinforcement for positive social interaction in other school settings. In this study, the use of classmates as peer partners in SST sessions likely facilitated the observed increases in friendships with classmates, gains in like most nominations, and generalization of positive peer interactions outside the group setting.

The Program Length and Individualized Tailoring

Prior reviews have suggested that many SST programs are too short to adequately address the skill performance deficits and associated behavioral difficulties of peer-rejected children. For example, Gresham et al. (2004) concluded that the typical SST program of 10-12 sessions provided only about half of the intervention needed by students with severe skill deficits and social adjustment problems. Following the recommendations of these researchers, the Friendship Group program ran for one academic year, providing children with average of 22 – 24 sessions.

Research also suggests that SST can be strengthened by focusing training sessions on child-specific social skill deficits (Kern et al., 2020; Lane et al., 2003). For example, in a small pilot study Lane and colleagues (2003) focused SST on areas of child skill deficits identified by the teacher, promoting positive behavior changes evident in the classroom. A risk associated with a fully individualized approach, however, is that it equates effective social interaction with the display of discrete social behaviors, essentially returning to a molecular conceptualization of social competence that has not proven fruitful in the past (Dirks et al., 2007). One of the likely reasons that teacher-rated social skills are only moderately correlated with peer social preference is that being socially competent with peers requires the capacity to adjust behavior in flexible and dynamic ways in different contexts and in response to different social cues and norms (Dirks et al., 2007). SST programs that focus solely on shaping specific social behaviors are not likely to provide the support needed to build this kind of dynamic, cross-situational social competence.

For this reason, the Friendship Group program takes a broader approach that situates individualization within a more comprehensive and manualized SST approach. All groups utilized the scripted program sessions that arranged targeted skill domains progressively, moving

from basic friendship skills (joining in, listening, sharing, cooperating) to more complex, emotionally laden interaction skills (competitive play, conflict resolution) to the management of stressful peer interactions (teasing, exclusion, bullying). The goal was to help children consolidate the generalized (flexible, dynamic) performance of friendship skills. Group leaders were able to individualize the program by repeating activities that were challenging for individual children or using extraactivities to extend practice opportunities. These opportunities may have helped children consolidate skills that they found difficult to use (Lane et al., 2003).

Collaboration Meetings with Teachers and Parents

The Friendship Group program provided handouts to teachers and parents after each session that outlined the session focus and provided suggestions for supporting skill practice in classroom and home settings. In addition, collaboration meetings were planned with parents and teachers at the start and mid-point of the program, focused on reviewing the child's social adjustment and planning collaborative supports. These contacts with teachers and parents may have contributed to the program's impact. The intervention improved student-teacher closeness, reflecting more positive teacher attitudes and behavior toward the rejected children which should enhance support for positive student behavior in the classroom and provide a positive model for peers (Hughes & Im, 2016; Mikami et al. 2020).

At the same time, it is unclear how much parents and teachers did to support children's skill development and peer relations. Most parents and teachers participated in the first planned meeting, but participation rates slipped to just over half of the parents and teachers by the second planned meeting. It is possible that more concerted efforts to engage parents and teachers effectively in supporting child social skill development and peer relations would have further strengthened program impact. Other researchers have documented improvements in children's

social adjustment by coaching parents in setting up effective play dates and social supports (Frankel et al., 1997) and by coaching teachers in social inclusion practices (Braun et al., 2020; Farmer et al., 2011; Mikami et al., 2021). We did not include that kind of specific guidance to teachers or parents in this study but doing so may have increased their useful involvement.

Study Strengths, Limitations, and Future Directions

One important strength of this study was the use of peer sociometric nominations to identify peer-rejected children and evaluate intervention effects. Most participating children had the lowest or second lowest social preference scores in their classrooms and were significantly disliked by their peers, demonstrated by a mean pretest "like least" standard score in the top 3% (mean standard score of 1.85). The inclusion of additional multi-informant measures (child assessments, teacher ratings) provided a broad assessment of the pattern of intervention effects across the targeted domains (e.g., social-cognitive skills, social behavior, peer relations). Most children were effectively engaged in the full year-long program, which was characterized by high levels of implementation fidelity, providing a good test of program impact.

This study also had several limitations that warrant discussion. First, the study included four school districts that varied considerably in student demographics and geographic locations (small town, rural, and urban). However, all districts were in the same state. Additional study is needed to determine whether program implementation feasibility or fidelity might vary in different kinds of school districts in other states. Prior research suggests that the correlates of peer rejection vary as function of peer group characteristics (Stormshak et al., 1999), making it possible that intervention effects could vary as a function of the student characteristics in different schools or classrooms.

Second, this study could have been strengthened by extending the size and scope of the

design. For example, the study was not sufficiently powered to adjust p-values to more conservative levels to guard against chance effects associated with testing multiple outcomes. In addition, this study reports on post-intervention outcomes. Follow-up studies are needed to determine whether the gains documented for rejected children at the end of the year of intervention are sustained in later years as children move to new classrooms and new schools.

Third, there are unanswered questions about the feasibility of sustained Friendship Group program implementation when study supports are no longer available. Supporting its sustainability, school personnel were highly positive about the Friendship Group program during this trial and willing to work through the considerable challenges of arranging space and scheduling time for group sessions. Group leaders represented a range of school personnel without specialized degrees who might be available to run Tier 2 groups (e.g., a para-educator, preschool teacher, classroom teacher). At the same time, group leaders were hired, trained, and supervised by a research team member. So, questions about the degree to which the schools can sustain the program with their own staff (i.e., counselors, student teachers, paraprofessionals) remain. Tier 2 programs are under-resourced in most schools leading to brief and fragmented delivery that reduces benefits (Bruhn et al., 2014; Rodriguez et al., 2016). The challenges involved in helping schools use and sustain evidence-based Tier 2 programming are not unique to SST and require ongoing attention by researchers to better understand school needs and to design effective supports (Stormont & Reinke, 2013).

In addition, the willingness and capacity of schools to use sociometric nominations to identify peer-rejected children for intervention is unknown. Computerized technology like SELWeb make it possible to conduct sociometric screening quickly with private student responding. Research suggests no negative impact of sociometric assessments on children's

social relationships, behavior, or feelings (Mayeux et al., 2007) and peer nominations consistently out-perform teacher ratings in identifying children who will experience future social maladjustment (Clemens et al., 2014). Yet, teacher input is most often used to identify children for SST in school settings. Teacher ratings and peer nominations are significantly correlated, but researchers estimate that teachers and peers agree on the children with low social preference only about 62% of the time (van den Berg et al., 2015). It is unlikely that the use of teacher ratings to identify peer-rejected children would reduce the efficacy of the intervention, but it might reduce the accuracy of the screening process.

Fourth, this study cannot determine the degree to which specific features of program design contributed to the positive findings. In addition, the study does not provide clarity on why peer nominations of prosocial, aggressive, and like least did not improve, despite positive changes in teacher ratings in the same behavioral domains (social skills, externalizing problems) and significant improvement in like most and friendship ratings. Future research is needed to address these questions. Researchers have suggested several additional interventions that may improve peer acceptance in the classroom context, such as training teachers in classroom management strategies that support peer inclusion, providing disliked children with positive interaction opportunities, and strategically organizing seating charts (Braun et al., 2020; Farmer et al., 2011; Mikami, 2021). Research is needed to evaluate the extent to which these strategies might further increase the generalized impact of SST on negative peer reputations.

In addition, the optimal balance between standard (manualized) intervention supports for Tier 2 SST interventions and individualized components requires further study, as does the optimal assessment approach to guide tailoring efforts. In the current study, group leaders decided on areas for intensive practice after reviewing pre-intervention assessments, consulting

with teachers and parents, and observing child behavior during intervention sessions. They used this information to extend practice in areas where they judged that the child needed more support. The use of more specific and standardized measures and decision rules might have strengthened the tailoring processes (Bierman et al., 2006). Future research is needed to better understand and evaluate the impact of different strategies for integrating individualized components into social skill training programs.

Conclusion

SST research has produced systematic and effective strategies for remediating social skill deficits, but existing programs typically fail to promote generalized improvements in classroom social behavior and peer relationships. Strengthening the impact of Tier 2 SST programming in schools is a critical goal, given the negative developmental cascade associated with chronic peer rejection and the escalating effects it has on student problem behaviors, emotional distress, and school disengagement (Ve´ronneau et al., 2010). This study showed the promise of the Friendship Group program to meet this need and identified a number of issues that require further study and innovation.

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Table 1.

Baseline Comparison of Intervention and Control Groups

Measure	Control group		Intervention Group		T-test	P-value
	Mean	(S.D.)	Mean	(S.D.)		
Child Assessments of Social-Cognitive Skills						
Emotion Recognition	90.82	(17.25)	93.37	(17.76)	-1.20	0.24
Competent Problem Solving	38.45	(31.05)	41.21	(31.98)	-0.66	0.51
Self-Control	90.62	(18.23)	93.07	(14.88)	-1.38	0.18
Teacher-rated Social Behaviors						
Social Skills	67.17	(18.28)	65.02	(15.70)	0.71	0.48
Externalizing Problems	14.56	(7.96)	14.33	(6.90)	0.66	0.51
Internalizing Problems	6.15	(3.77)	6.94	(3.83)	-1.55	0.13
Peer-nominated Social Behaviors						
Prosocial	0.25	(0.14)	0.27	(0.14)	-2.05	0.06
Aggressive	0.39	(0.22)	0.36	(0.21)	1.66	0.11
Teacher-rated relationships						
Student-teacher closeness	29.44	(5.71)	28.88	(6.31)	0.48	0.63
Student-teacher conflict	20.54	(8.70)	20.09	(8.08)	0.68	0.50
Peer problems	3.52	(0.92)	3.55	(0.86)	-0.05	0.96
Peer-nominated relationships						
Like most	0.24	(0.12)	0.24	(0.14)	-0.60	0.55
Friends with	0.25	(0.13)	0.26	(0.14)	-0.90	0.37
Like least	0.60	(0.14)	0.58	(0.13)	1.52	0.14

Note: S.D. = standard deviation. Peer nominations represent the proportion of nominations received relative to the number of peer raters. Teacher ratings represent summed scale scores.

Table 2

Pre-Intervention Correlations Among Outcomes

	1	2	3	4	5	6	7	8	9	10	11	12	13
Social-Cognitive Skills													
1. Emotion Recognition-C													
2. Problem Solving	0.11												
3. Self Control	0.24	0.25											
Social Behaviors													
4. Social Skills-T	0.06	0.17	0.21										
5. Externalizing-T	-0.12	-0.12	-0.10	-0.63									
6. Internalizing-T	-0.05	-0.14	-0.15	-0.38	0.21								
7. Prosocial-P	0.02	-0.01	-0.04	0.25	-0.40	0.04							
8. Aggressive-P	-0.09	-0.09	-0.06	-0.30	0.58	-0.08	-0.53						
Relationships													
9. STRS Closeness-T	-0.06	0.14	0.05	0.53	-0.20	-0.29	0.14	-0.07					
10. STRS Conflict-T	-0.09	-0.11	-0.08	-0.64	0.83	0.27	-0.37	0.50	-0.37				
11. Peer Problems-T	-0.11	-0.01	-0.17	-0.53	0.37	0.44	-0.29	0.17	-0.34	0.38			
12. Like Most=P	-0.03	-0.14	-0.05	0.11	-0.12	-0.07	0.46	-0.05	0.03	-0.05	-0.31		
13. Friends With-P	0.01	-0.08	-0.02	0.10	-0.12	-0.01	0.52	-0.11	0.09	-0.08	-0.29	0.59	
14. Like Least-P	-0.10	-0.01	-0.06	-0.13	0.21	0.04	-0.33	0.44	-0.12	0.21	0.18	-0.17	-0.28

Note. Correlations greater than 0.14 are $p < 0.05$; correlations greater than 0.20 are $p < 0.01$; correlations greater than 0.27 are $p < 0.001$. C = child assessment; T = teacher-rated; P = peer-nominated. STRS = Student-teacher Relationship Scale

Table 3.

Intervention Effects on Child Assessments of Social Cognitive Skills

Measure	Control group		Intervention Group		Intervention Effect	
	Pre-tx Mean (S.D.)	Post-tx Mean (S.D.)	Pre-tx Mean (S.D.)	Post-tx Mean (S.D.)	Effect (S.E.)	P-value
Emotion Recognition	90.82	92.71	93.37	96.94	**0.21***	**0.04**
	(17.25)	(15.74)	(17.76)	(13.18)	(0.10)	
Competent Problem Solving	38.45	43.27	41.21	50.95	**0.21+**	**0.06**
	(31.05)	(31.57)	(31.98)	(31.51)	(0.11)	
Self-Control	90.62	90.54	93.07	94.00	0.16	0.18
	(18.22)	(16.91)	(14.88)	(14.75)	(0.11)	

Note: S.D. = standard deviation, in parentheses under the mean; S.E. = standard error in parentheses under the effect. Emotion recognition and self-control scores generated by SEL Web represent z-scores based on national norms; competent problem solving is the average proportion of competent solutions provided. * $p < .05$. + $p < .10$.

Table 4.

Intervention Effects on Social Behaviors

Measure	Control group		Intervention Group		Intervention Effect	
	Pre-tx Mean (S.D.)	Post-tx Mean (S.D.)	Pre-tx Mean (S.D.)	Post-tx Mean (S.D.)	Effect (S.E)	P-value
Teacher-rated behaviors						
Social Skills	67.17	69.71	65.02	73.10	**0.24***	**0.03**
	(18.28)	(19.50)	(15.70)	(18.59)	(0.11)	
Externalizing Problems	14.56	14.78	14.33	13.36	**-0.19***	**0.05**
	(7.96)	(7.43)	(6.90)	(7.10)	(0.09)	
Internalizing Problems	6.15	6.44	6.94	6.40	-0.12	0.30
	(3.77)	(3.63)	(3.83)	(3.71)	(0.12)	
Peer-nominated behaviors						
Prosocial	0.25	0.23	0.27	0.25	0.12	0.31
	(0.14)	(0.13)	(0.14)	(0.14)	(0.11)	
Aggressive	0.39	0.40	0.36	0.38	-.04	0.75
	(0.22)	(0.24)	(0.21)	(0.22)	(0.11)	

Note: Peer nominations represent the proportion of nominations received relative to the number of peer raters. Teacher ratings represent sum scores (possible range range 0-138 Social Skills; 0-36 Externalizing). S.D. = standard deviation, in parentheses under the mean; S.E. = standard error in parentheses under the effect.
* $p < .05$.

Table 5.

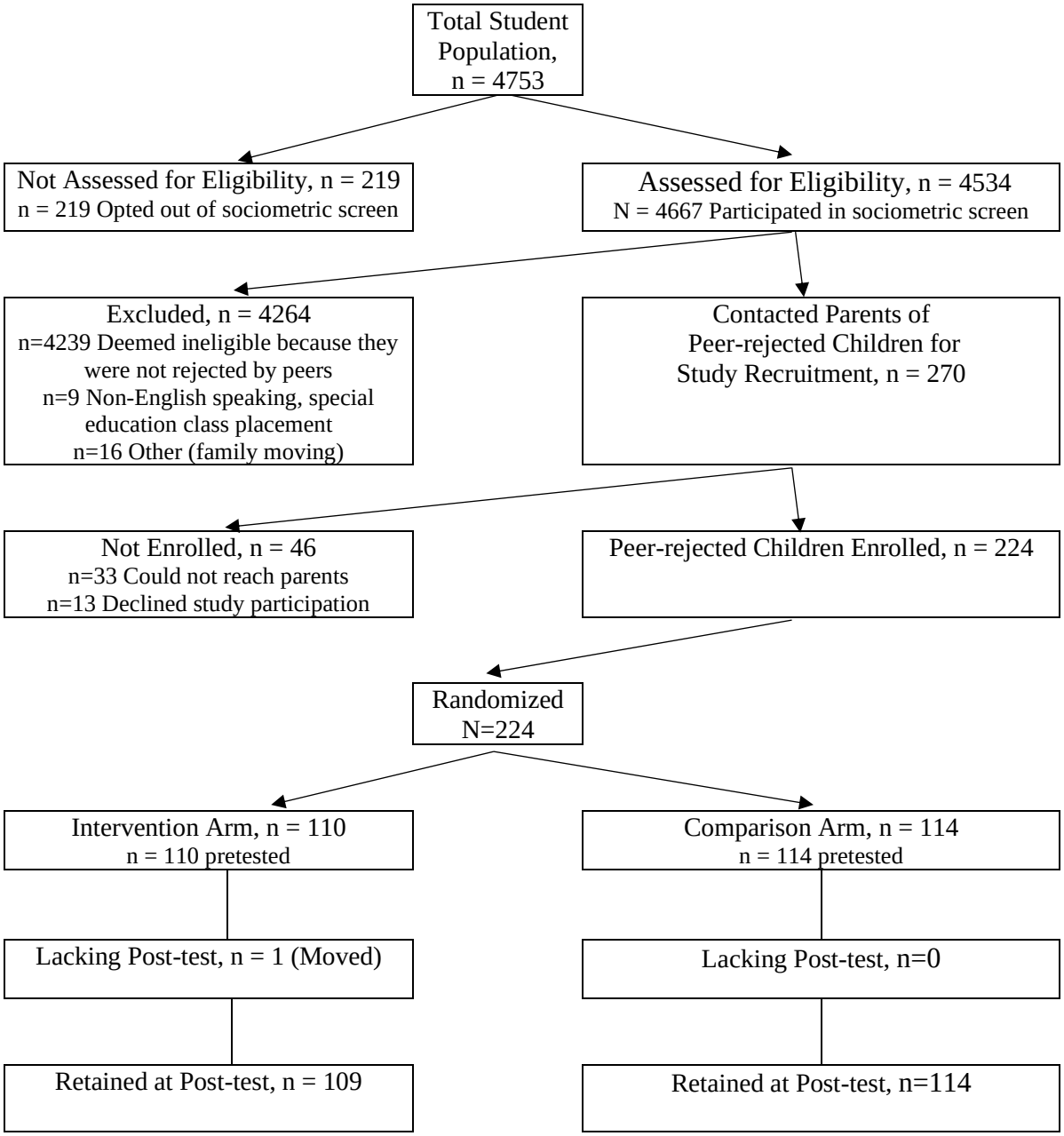
Intervention Effects on Quality of Relationships

Measure	Control group		Intervention Group		Intervention Effect	
	Pre-tx Mean (S.D.)	Post-tx Mean (S.D.)	Pre-tx Mean (S.D.)	Post-tx Mean (S.D.)	Effect (S.E)	P-value
Teacher-rated relationships						
Student-teacher closeness	29.44	29.84	28.88	31.17	**0.25***	**0.03**
	(5.71)	(6.23)	(6.31)	(6.06)	(0.11)	
Student-teacher conflict	20.54	20.40	20.09	19.98	-0.06	0.53
	(8.70)	(8.35)	(8.06)	(8.74)	(0.10)	
Peer problems	3.52	3.47	3.55	3.30	**-0.20+**	**0.08**
	(0.92)	(0.90)	(0.86)	(0.85)	(0.11)	
Peer-nominated relationships						
Like most	0.24	0.23	0.24	0.29	**0.36****	**0.01**
	(0.12)	(0.15)	(0.14)	(0.15)	(0.13)	
Friends with	0.25	0.28	0.26	0.33	**0.26***	**0.04**
	(0.13)	(0.16)	(0.14)	(0.16)	(0.12)	
Like least	0.60	0.56	0.58	0.52	-0.19	0.14
	(0.14)	(0.19)	(0.13)	(0.20)	(0.13)	

Note: Peer nominations represent the proportion of nominations received relative to the number of peer raters. Teacher ratings represent summed scale scores for closeness and conflict (range 8-40) and mean items scores for peer problems (range 1-6). S.D. = standard deviation, in parentheses under the mean; S.E. = standard error in parentheses under the effect.
** $p < .001$. * $p < .05$. + $p < .10$.

Figure 1.

Consort Diagram of Participant Flow Through Study



Note: Only one child was missing all sources of data at the post-test assessment. Other children were missing single sources of post-test data: 4 missing teacher ratings, 10 missing peer sociometric nominations, 3 missing social-cognitive assessments.