J Primary Prevent (2014) 35:371–387
DOI 10.1007/s10935-014-0357-0

ORIGINAL PAPER

Preventing Risk for Significant Behavior Problems Through a Cognitive-Behavioral Intervention: Effects of the *Tools for Getting Along* Curriculum at One-Year Follow-Up

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Published online: 26 July 2014

Abstract Efficient and effective social-emotional learning programs increase the likelihood of success in school for all students, and particularly for those who may develop emotional or behavior problems. In this study, we followed a sub-sample of students 1 year after their participation in a randomized controlled trial of the effects of the Tools for Getting Along (TFGA) curriculum. TFGA is a universally delivered, preventive cognitive-behavioral curricular intervention designed to improve upper elementary school students' emotional and behavioral self-regulation. To determine effects at 1-year follow-up, we assessed 720 out of the 1,296 original students across TFGA and control conditions on measures of curricular knowledge, teacher-rated executive function and behavior, and student-reported anger and social problem solving. Findings indicated a continued positive effect on curricular knowledge for students taught TFGA relative to controls. We also found significant pretest by condition interaction effects on teacher reports of skills associated with executive function, including inhibitory control and shift (cognitive flexibility), and on teacher reported internalizing and externalizing behavior. Specifically, students with poorer scores on these measures at pretest benefited from TFGA at follow-up relative to comparable students in the control condition. Finally, we found marginally significant pretest by condition interaction effects on proactive aggression, outward expressions of anger, and the executive function related skills of initiating activities and using working memory. Counter to expectations, we found negative TFGA effects on student-reported trait anger and anger control.

Keywords Cognitive-behavioral interventions · Self regulation · Executive function · At-risk · Behavior problems

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Introduction

For many years, researchers have estimated that 20 to 25 % of students may be considered at risk for developing some kind of behavioral problem during their school years (e.g., Duchnowski, Kutash, & Freidman, 2002; Rubin & Balow, 1978). According to Bierman (2004), the behavioral, academic, and social deficits associated with problematic behavior increase students' risk of maladjustment in relationships with

peers and teachers and can lead to social rejection. Researchers have found that students who are rejected by peers at an early age because of aggression are at increased risk of later externalizing antisocial behaviors (Dodge et al., 2003; Laird, Jordan, Dodge, Pettit, & Bates, 2001). Moreover, Miller-Johnson, Coie, Maumary-Gremaud, Bierman, and the Conduct Problems Prevention Research Group (CPPRG) (2002) assert that students who are aggressive and rejected by peers are more likely to be emotionally reactive, have uncontrolled aggressive styles, and have lower levels of social competence, each of which can contribute to increased conflict with others. As a result, students may turn to socially marginalized peers for friendship, thus reinforcing antisocial behavior and potentially more frequent and severe externalizing behaviors (Akers & Sellers, 2009; see also Dishion, Poulin, & Burraston, 2001). Equally troublesome is that problematic externalizing behaviors such as aggression and disruption can also weaken learning opportunities in school and have long lasting effects into adulthood (August, Realmuto, Hektner, & Bloomquist, 2001; Kam, Greenberg, & Kusché, 2004; Larkin & Thyer, 1999; Robinson, Smith, Miller, & Brownell, 1999; Wilson, Lipsey, & Derzon, 2003).

In response to student problem behavior, school professionals often counter negative student behaviors with punitive actions such as time out, reprimands, removal of privileges, office referrals, suspension, and expulsion (Alberto & Troutman, 2012; Polsgrove & Smith, 2004; Skiba & Rausch, 2006). These reactive and punitive interventions can exacerbate the difficulties of students at risk for behavior problems, because behavior reduction techniques such as time out do not engender the self-regulatory or self-control mechanisms necessary for students' autonomous and prolonged positive social functioning (Bandura, 1986). Moreover, it is unlikely that these students will be successful without explicit instruction in positive social behaviors (Hudley et al., 1998; Skiba & Peterson, 2003; Sutherland & Wehby, 2001). Thus, there is a continuing need for proactive social-emotional learning (SEL) programs that counter disruptive, anti-social, and aggressive behavior by teaching skills that promote students' self-regulation (SR) of emotions and behavior.

The ability to self-regulate behavior is critical for developing and maintaining positive social relations, and there is growing acknowledgement in neuroscience that self-regulatory processes are grounded in executive function (EF; Hofmann, Schmeichel, & Baddeley, 2012; Lyons, & Zelazo, 2011; Rueda, Acosta, & Santonja, 2007). EF is defined as the active manipulation, sequencing, and monitoring of information through a series of interrelated neurocognitive processes to produce goal-oriented action (e.g., Kochanska, Murray, & Harlan, 2000; Landry, Smith, & Swank, 2009; Lewis & Carpendale, 2009; Vohs & Ciarocco, 2004). EF skills are involved in deliberate goal-directed problem solving that incorporates successful goal-pursuit and emotion regulation. Thus, the SR skills that contribute to effective social problem solving play an important role in social-emotional functioning. Conversely, deficiencies in EF skills can contribute to social-emotional and behavioral difficulties (Hughes, 2002; Olson, Sameroff, Kerr, Lopez, & Wellman, 2005).

Researchers have shown that cognitive-behavioral interventions (CBIs) can improve self-regulatory mechanisms and enhance social problem-solving outcomes in a variety of settings (e.g., whole class/universal delivery; small group/pull-out), thereby diminishing risk for behavioral problems such as anger and aggression (Daunic, Smith, Brank, & Penfield, 2006; Daunic et al., 2012; Smith, Graber, & Daunic, 2009). CBIs consist of theoretically derived and evidenced-based approaches that combine behavioral and cognitive components to produce change in student behavior through their influence on underlying cognitive processes essential to successful interpersonal problem solving (Smith & Daunic, 2006; Smith, Taylor, Barnes, & Daunic, 2012). Within the overall context of SEL, use of CBIs to teach students effective social problem solving also enhances the probability that learned skills will generalize to novel settings and be maintained over time (Neilans & Israel, 1981; Smith & Daunic, 2006). By promoting the SR of emotions and behavior, CBIs reduce risk, increase positive social functioning, and promote durable and/or potentially latent effects (Kazdin, Siegel, & Bass, 1992; Lochman & Wells, 2002, 2004). Students learn to turn their mental abilities into task-related skills, monitor progress toward a goal or the effectiveness of a problem solution, and (if unsuccessful) correct their behavior (Zimmerman, 2001). Moreover, Zimmerman asserts that students who are self-regulated and aware of their own thought processes are more likely to be positive toward and motivated about their own

learning. Thus, teaching skills to improve SR, especially as a preventive effort, should be a salient and attendant focus of behavior change efforts.

CBIs focused on strengthening SR are especially salient when delivered at a universal level, because students who evidence developmental risk for behavior problems are better positioned to benefit from learning alongside typical peers (Daunic et al., 2012). Whole class or universal implementation allows for the modeling of positive behaviors by socially appropriate peers to provide support for the use of constructive social-emotional problem-solving strategies by students with emerging behavior problems (Walker, Colvin, & Ramsey, 1995). For example, CBI curricula can be used to stimulate whole class discussions about social situations, including those about multiple interpretations of environmental social stimuli, positive interpersonal interactions, and adaptive selections of constructive social responses in emotionally charged situations (Smith et al., 2009). Thus, the universal application of CBIs can be a fundamental preventive measure for all students and support, encourage, and assist students who exhibit inadequate social responses by increasing their self-regulatory skills and exposing them to the perceptions, goals, and choices of more socially competent peers.

The effectiveness of school-based, universally delivered CBIs for improving student selection and use of social-cognitive strategies to prevent emotional and behavioral problems has been explored in recent research reviews (e.g., Durlak, Weissberg, Dymnicki, Taylor, & Shellinger, 2011; Wilson & Lipsey, 2007). These reviews note several well-studied and evidence-based programs that have positively influenced students' SR and social-cognitive processing. For example, the *Promoting Alternative Thinking Strategies* (*PATHS*) curricular component of the Fast Track Project (see e.g., CPPRG, 2002) for elementary aged students focuses on improving emotional awareness, self control, and social problem solving. Researchers have found *PATHS* effective for reducing externalizing behavior problems and improving emotional awareness and inhibitory control across a variety of student populations (CPPRG, 2010; Kam et al., 2004). Moreover, Riggs and colleagues (2006) found reductions in externalizing behavior for students who received the *PATHS* curriculum a year following intervention implementation.

Similar to *PATHS, Second Step* (Frey, Hirschstein, & Guzzo, 2000) targets social-cognitive and emotional processes, with programs that range from pre-kindergarten through middle school that have undergone several evaluations (e.g., Cooke et al., 2007; Grossman et al., 1997; McMahon & Washburn, 2003; Ryan, Aten, Auinger, & Miller, 2004). In a randomized controlled trial, Grossman et al. reported that *Second Step* reduced violent behavior and increased students' use of prosocial behavior, with effects on physical aggression that lasted up to 6 months.

A third universally delivered, classroom-based CBI is the *Making Choices* program (Fraser, Day, Galinsky, Hodges, & Smokowski, 2004; Fraser, Nash, Galinsky, & Darwin, 2000; Fraser et al., 2005; Smokowski, Fraser, Day, Galinsky, & Bacallao, 2004). An initial evaluation focusing on emotion recognition, effortful control, and SR strategies found that students participating in *Making Choices* (in conjunction with a parent component, *Strong Families*) fared better on measures of emotion regulation, the enactment of prosocial behaviors, and increased social contact. A 6-month follow-up study of *Making Choices* and *Making Choices Plus* (with enhanced generalization features) revealed that each of these interventions was effective in preventing student aggression (Fraser, Lee, Kupper, & Day, 2011).

The evidence base for these interventions illustrates that the CBI approach has been used successfully with elementary and middle school-aged students to prevent and/or ameliorate disruptive or aggressive behavior patterns and improve student SR, both immediately following intervention and 6 months to a year later. Many prevention curricula that include CBI components and are designed to counter disruptive, antisocial, and aggressive behavior focus on multiple cognitive-behavioral processes that may include impulse control, empathy, decision-making, emotion recognition, emotional literacy, self-control, social competence, social skills, positive peer relations, and interpersonal problem-solving skills. While addressing a variety of developmental skill areas can be effective, there is also a need to examine the efficacy of interventions that target a more focused skill area.

The universally delivered CBI, *Tools for Getting Along* (TFGA), is focused specifically on social problem solving through instruction that involves a well-established, structured, multi-step, self-directed process. First examined by Daunic et al. (2006) using a small sample of students (165) identified as at risk for

behavior difficulties, TFGA was found to have positive effects on student knowledge of the curriculum and teacher-rated reactive and proactive aggression. In a subjective evaluation of social validity, teachers indicated that TFGA was appealing to students, appropriate and easy to use, and effective in addressing problem behavior. In a second randomized controlled trial with a larger sample of 4th and 5th graders, Daunic et al. (2012) investigated the effectiveness of the universally delivered TFGA using a two-level HLM and data from all students in participating classrooms, as opposed to targeted students only. Results indicated that students who were taught TFGA had, on average, a more positive approach to problem solving and a more rational problem-solving style than control students. Students with relatively poor baseline scores benefited more from TFGA on problem-solving knowledge, teacher-rated executive functioning (Behavior Regulation and Metacognition), proactive aggression, and self-reported trait anger and anger expression. That is, 4th and 5th grade students with relatively high measure-specific baseline scores (higher scores indicated poorer or more negative functioning) who received the TFGA preventive intervention had lower posttest scores on these variables than comparable students in the control condition. Thus, the curriculum served to "dampen" (i.e., improve) baseline scores.

Current Study

Although promising, previous studies did not address whether TFGA effects would be evident after a longer period of time or whether there would be delayed effects that were not evident immediately following curriculum delivery. Since TFGA is designed to be preventive in nature (see Smith et al., 2009), differences between TFGA and control groups on variables related to problematic behavior or the emergence of positive behaviors may only become apparent over time. Students with greater potential for behavioral issues may evidence increasing difficulty if they are not exposed to preventive approaches that strengthen positive social-emotional functioning, or conversely, students taught skills to strengthen the SR of emotions and behavior may exhibit a more positive behavioral trajectory over time, compared with those who are not. Consistent with Kazdin's (1997) belief that assessment of long-term prevention and intervention effects should constitute a research priority, the purpose of our study was to determine TFGA's effects a full year after students were taught TFGA in the 4th and 5th grade. Our study is a follow-up study to Daunic et al. (2012) to investigate the effects of TFGA at 1-year follow-up on measures of curricular knowledge, teacher-rated executive function and behavior, and student-reported anger and social problem solving.

Method

Initial TFGA Randomized Controlled Trial

Details about the initial sample, setting, curriculum, instruments, and study procedures can be found in Daunic et al. (2012), along with the study design and analysis. We provide a brief description here as context for the follow-up investigation. In Daunic et al., researchers matched schools on percent of students receiving free or reduced price lunch (FRL) and randomly assigned members of each matched pair to the TFGA or control condition prior to informing schools about their assignment. The sample consisted of eight schools in Year 1 and six different schools in Year 2. The 14 schools included 87 classrooms (44 TFGA, 43 control) with a final sample for data analyses of 1,296 4th and 5th grade student participants, 65–90 % of whom qualified for FRL.

Follow-Up Study

Procedures and Sample

To determine the location of all participants approximately 12 months post TFGA implementation, we contacted school district- and school-based personnel to locate current class placements for students with parental consent from the original study. We followed 4th grade students to 5th grade classrooms and 5th grade students who matriculated to 6th grade classrooms in middle schools within participating school districts. After collecting requisite information about student placements, we eliminated schools with fewer than five participants to maximize efficiency and project resources. To initiate data collection in the early spring of the follow-up year, we identified and

contacted the follow-up 5th grade students' primary teacher and a core subject area teacher for the follow-up 6th grade students. At each school, project research assistants met with these teachers and, for the middle school teachers, determined that they were adequately familiar with the follow-up students we identified. The assistants reviewed the purpose of the study and explained the measures to be completed. We also determined at these meetings that TFGA was not sustained in any of the elementary classrooms during the follow-up year, such that no student who had been taught the curriculum in 4th or 5th grade, or who participated in the control condition as a 4th or 5th grader, was taught TFGA during the follow-up year. The assistants scheduled and administered the student self-report measures, except in cases where participating teachers elected to conduct those assessments themselves.

The original efficacy study included 1,296 students, of whom we were able to follow 55.5 %. These 720 students were nested in 77 classrooms that, in turn, were nested in 14 schools during the time TFGA was taught. Of the sample we followed ($N = 720$), 80.3 % of students received FRL. There was an approximately equal number of males and females, 49.2 % and 50.8 %, respectively. African American students constituted 34.9 % of students followed, and the remainder were Caucasian, Hispanic, or from other racial or ethnic groups.

Tools for Getting Along Curriculum

As described in Daunic et al. (2012), TFGA is a classroom-based, universally delivered, 26-lesson social problem-solving preventive intervention that is theoretically aligned with Crick and Dodge's (1994) social information-processing (SIP) model. Lessons focus on six step-by-step problem-solving strategies to strengthen SR in emotionally charged social situations. Steps 1 and 2 involve recognizing a social problem situation and calming down to engage cognition, parallel to the SIP processes of encoding, interpretation, and mental representation of environmental cues. TFGA Step 3 involves defining a social problem in terms of goals and barriers, parallel to goal clarification or selection. Step 4 of TFGA consists of brainstorming possible solutions, parallel to response access or construction, and Steps 5 and 6 involve selecting, enacting, and evaluating a response choice, parallel to the response decision and behavioral enactment steps in the Crick and Dodge model. Five strategically placed role-play lessons provide students with skill practice opportunities. Following the initial 20-lesson core, 6 booster lessons add review, practice, and opportunities to generalize learned skills through small group activities, student constructed role-plays, and real-life problem-solving situations. Teachers who taught TFGA received 2 days of training and taught the curriculum at the rate of one to two lessons per week (see Daunic et al., 2012).

Daunic et al. (2012) collected curriculum implementation fidelity data through classroom observations using individual lesson checklists that indicated high adherence to essential curriculum steps (86.1 %, $SD = 9.5$ %, range 56.6–97.8 %). Teachers also returned *TFGA Curriculum Checks,* which indicated that all respondents covered "most" or "all" lesson content, and most indicated they included all associated lesson components, such as group activities and worksheets. Lessons averaged 30 min in length across teachers, including completion of activities.

Measures

The *Problem-Solving Knowledge Questionnaire (KQ)* was developed to assess student knowledge of concepts and information taught explicitly in TFGA. For the first 11 items, only one answer among several alternatives is appropriate; items 12–14 require students to "check all that apply" (e.g., Check all the ways your body may feel when you are angry). Two additional items require students to supply curriculum-specific information (e.g., What are three levels of anger, from lowest to highest?). The maximum total scale score is 24. Item analyses and pilot administration were conducted prior to use of the measure in Daunic et al. (2006). Reliability estimates from the current study sample at follow-up yielded a total scale Cronbach's alpha of .62.

The *Social Problem-Solving Inventory-Revised (SPSI-R)* is based on a two-component model of problem solving. *Problem orientation* focuses on metacognitive processes that reflect general awareness and appraisals of problems encountered in everyday life, and *Problem-solving style* focuses on four skills necessary to solve a problem successfully: (1) problem definition, (2) alternative solution generation, (3) decision making, and (4) implementing and evaluating

a solution (see D'Zurilla, Nezu, & Maydeu-Olivares, 2004). These skills closely parallel those explicitly taught in TFGA and addressed by Dodge's social information processing model (Dodge, 1986). The *SPSI-R* includes 52 Likert-type self-report items that comprise two problem orientation scales: Positive Problem Orientation (PPO; 5 items) and Negative Problem Orientation (NPO; 10 items), and three problem-solving style scales comprised of Rational/Adaptive (RPS; 20 items), Impulsive/Careless (ICS; 10 items), and Avoidance (AS; 7 items). Item responses range from 1 (*not at all true*) to 5 (*extremely true*). Among diverse populations, the *SPSI-R* has shown strong internal consistency and stability over time, and has evidenced strong structural, concurrent, predictive, convergent, and discriminant validity (D'Zurilla, Nezu, & Maydeu-Olivares, 2002). In the current study, Cronbach's alphas ranged from .72 (PPO) to .93 (RPS) at follow-up for the sample.

The *Anger Expression Scale for Children (AESC)* is modeled after the extensively used and well-validated *State-Trait Anger Expression Inventory* (Spielberger, 1988), which is a 30-item self-report measure with Likert-type responses ranging from 1 (*almost never*) to 4 (*almost always*). Four subscales were derived from prior factor analyses: (1) Anger Control, 6 items; (2) Anger-Out (outward expression of anger), 6 items; (3) Anger-In (tendency to suppress or hide angry feelings), 6 items; and (4) Trait Anger (general tendency to react to situations with anger), 12 items. Initial factor analyses (Phipps & Steele, 2002) indicated that Anger Control and Anger-In clustered together, with higher scores indicating more effort to prevent outward displays of anger and/or to minimize the experience of anger (e.g., *I feel [anger] inside but I don't show it*), and Anger-Out and Trait Anger clustered together with higher scores indicating more generalized feelings of anger and a greater tendency to display it outwardly (e.g., *I get in a bad mood when things don't go my way*). We used the 4-factor model, however, as recommended by Steele, Legerski, Nelson, and Phipps (2009) in a recent publication of results of confirmatory factor analyses. According to Steele et al., the *AESC* has a robust and theoretically grounded four-factor structure with acceptable estimates of internal consistency. Correlational analyses indicate that measure subscales demonstrate good convergent validity with other measures of anger and hostility. Cronbach's alphas at follow-up for students in the current study were .88, .79, .49, and .83 for Trait Anger, Anger-Out, Anger-In, and Anger Control, respectively.

The *Reactive-Proactive Aggression Scale (R/P)* includes 19 questions to teachers about student behavior in which six embedded items assess aggression. Three items constitute a proactive aggression subscale (e.g., *This child gets other children to gang up on a peer that he/she does not like*), and three items comprise a reactive aggression subscale (e.g., *When this child has been teased or threatened he/she gets angry easily and strikes back*). All item responses are Likert-type and range from 1 (*never true*) to 5 (*always true*), such that total scores for each subscale range from 3 to 15. The *R/P* has demonstrated moderate construct validity for the two-factor model, and high internal consistency (see Dodge & Coie, 1987) despite the fact that proactive and reactive aggressive forms are not mutually exclusive. Cronbach's alphas from the current study follow-up data yielded internal consistency reliabilities of .91 for reactive and .89 for proactive aggression.

The *Clinical Assessment of Behavior Teacher Rating Form (CAB-T)* is a standardized behavior scale consisting of 70 questions that assess three clinical scales (internalizing, critical, and externalizing behavior), three adaptive scales (social skills, competence, and adaptive behavior), and four educationally related clinical clusters. Likert-type item responses range from 1 (*always or very frequently*) to 5 (*never*). *CAB-T* subscale scores have demonstrated adequate internal consistency reliability in previous studies (.94–.97 for clinical scales and .80–.99 for adaptive scales; Bracken & Keith, 2004). The *CAB-T* also demonstrates evidence of good validity based on test content and factor analytic studies, as well as convergent, discriminant, and concurrent validity studies across clinical groups including disruptive behavioral disorders. Cronbach's alphas at follow-up for the four subscales used in our analyses were: .93 for Internalizing, .98 for Externalizing, .95 for Social Skills, and .95 for Competence.

The *Behavior Rating Inventory of Executive Function Teacher Form (BRIEF-TF)* is a standardized instrument that consists of 86 items that constitute eight clinical scales. The scales form two broad indices, the Behavioral Regulation Index (BRI) and the Metacognition Index (MI), and a Global Executive Composite score (see Gioia, Isquith, Guy, &

Kenworth, 2000). The BRI is comprised of Inhibit, Shift, and Emotional Control scales and relates to the ability to inhibit impulsive behaviors, to redirect attention or modify behavior in response to changing goals, and to manage emotions and behavior. The MI is comprised of the Initiate, Working Memory, Plan/Organize, Organization of Materials, and Monitor scales that collectively reflect ability to cognitively self-manage tasks and monitor performance. The *BRIEF* was developed to assess behavioral aspects of children's EF from the perspective of adults who have unique knowledge about behavior directly relevant to understanding self-regulation in the school environment (Gioia, Isquith, Kenworthy, & Barton, 2002a). Respondents use a Likert-type scale to indicate *never*, *sometimes*, or *often* for each item. The *BRIEF* has demonstrated adequate reliability and construct validity (Gioia, Isquith, Retzlaff, & Espy, 2002b). The current sample Cronbach's alphas for the eight individual scales at follow-up ranged from .92 to .96.

Statistical Analysis

We compared students from the original efficacy study (Daunic et al., 2012) who were included in the follow-up study cohort to those who were not included (i.e., those we were not able to follow) on socio-demographic characteristics, behavioral measures, and TFGA knowledge questionnaire outcomes using λ^2 tests for categorical data and *t* tests for numerical data. In addition, for students who were included in the follow-up cohort, we compared TFGA and control groups on socio-demographic variables and pretest scores on behavioral measures using λ^2 tests for categorical data and *t* tests for numerical data.

The data set had a nested structure with three levels, namely classrooms nested within schools and students nested within classrooms, and random assignment took place at the school level. School level variation was negligible, however, with an average intra-class correlation (ICC) of .03. In addition, the small number of level 3 units ($n = 14$) caused non-identification problems when we introduced level 3 clusters into the model. Thus, each model used to estimate treatment effects comprised two levels: students at Level 1 and classrooms at Level 2. Dependent variables consisted of follow-up scores on subscales (i.e., behavioral measures and the TFGA knowledge questionnaire); independent variables consisted of pretest scores, FRL, gender, race, grade, and FCAT scores at Level 1, and condition at Level 2. The pretest by condition cross-level interaction was also an independent variable. The interaction term was included because we hypothesized that students with higher pretest scores on behavioral measures (indicating more negative performance) would be likely to evidence different responses to TFGA at follow-up than those with lower baseline scores. We grand mean centered all continuous independent variables. Level 1 equation reads:

$$\begin{aligned} Y_{ij} = {} & \beta_{0j} + \beta_{1j}(\text{PRE SCORE})_{ij} + \beta_{2j}(\text{RACE})_{ij} \\ & + \beta_{3j}(\text{SEX})_{ij} + \beta_{4j}(\text{FRL})_{ij} \\ & + \beta_{5j}(\text{FCAT READING})_{ij} + \beta_{6j}(\text{FCAT MATH})_{ij} \\ & + \beta_{7j}(\text{GRADE})_{ij} + e_{ij} \end{aligned} \tag{1}$$

Level 2 equations read:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}\text{CONDITION}_j + u_{0j} \tag{2}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{11}\text{CONDITION}_j \tag{3}$$

$$\beta_{2j} = \gamma_{20} \tag{4}$$

$$\beta_{3j} = \gamma_{30} \tag{5}$$

$$\beta_{4j} = \gamma_{40} \tag{6}$$

$$\beta_{5j} = \gamma_{50} \tag{7}$$

$$\beta_{6j} = \gamma_{60} \tag{8}$$

$$\beta_{7j} = \gamma_{70}. \tag{9}$$

In these models, Y_{ij} represents the follow-up subscale score, β_{0j} represents the intercept, SEX is the dichotomous variable equal to 1 if the child was a girl and 0 if the child was a boy, RACE is the dichotomous variable equal to 1 if the child was AA and 0 if the child was White/Other, FRL is the dichotomous variable equal to 1 if the child received free or reduced lunch and 0 if the child paid full price for lunch, FCAT READING is the variable equal to the grand mean centered FCAT reading score, and FCAT MATH is the variable equal to the grand mean centered FCAT math score. GRADE is the dichotomous variable equal to 1 if the child was a fifth grader and moved on to middle school before the follow-up assessment and equal to 0 if the child was a 4th grader and stayed at the same school. PRE SCORE represents the pre intervention grand mean centered subscale score,

and CONDITION is the effect coded intervention variable equal to −1 for the control group and 1 for the treatment group. We assumed e_{ij} to be normally distributed with a zero mean and constant variance (σ^2) and the random effect u_{0j} to be normally distributed with constant variance (τ^2). We also assumed β_{1j} does not vary randomly; this assumption holds because for 20 out of 25 outcomes, u_{1j} was not statistically different from zero. This random intercept model is identical to the one used in the original efficacy study.

We estimated multilevel models with maximum likelihood with standard errors that are robust to non-normality and non-independence (MLR). We also utilized the full information (FIML) approach by bringing FCAT scores into the model, assuming they are normally distributed, to handle missing data in *Mplus 7* (Muthén & Muthén, 1998–2012). We used the False Discovery Rate (FDR) procedure to control the expected proportion of falsely rejected hypotheses. We adjusted *Mplus p* values according to Benjamini and Hochberg (1995). Our outcomes were measured with six different instruments; thus FDR adjustments were conducted at the instrument level.

Using R software (R Core Team, 2012), we computed ICCs to estimate the proportion of variance in outcomes due to classroom cluster effects. Following Snijders and Bosker (2012), we also computed variance reduction (R^2). Further, we investigated Level 1 and Level 2 residuals. Interaction graphs were created using the coefficients from *Mplus* outputs.

Results

Equivalence of Attrited and Nonattrited Participants

In comparing our follow-up cohort (nonattrited) with those whom we were unable to follow (attrited), we found no differences between groups on gender, race, reading, or math. A higher percentage of students in the follow-up cohort received FRL, $\lambda^2(1,223) = 7.92$, $p = .005$; and a higher percentage of students attended 5th grade, $\lambda^2(1,282) = 7.80$, $p = .005$. Additionally, we followed more students in the control than in the treatment group for the follow-up cohort, $\lambda^2(1,296) = 11.97$, $p = .0005$. We also compared attrited to the follow-up cohort on outcome measures at pretest, finding a difference only on the Positive Approach to Problem Solving subscale of the *SPSI-R*. Follow-up cohort students exhibited lower scores at pretest than attrited students, $t(1,245) = 1.91$, $p = .056$.

Equivalence of TFGA and Control Groups at Baseline

In addition to comparing attrited to nonattrited student samples, we compared students in the TFGA condition to those in the control condition for the follow-up cohort. We found no differences on gender or FCAT math test scores. We did, however, find differences between groups on race, FRL status, grade, and reading. The TFGA group, on average, had a higher percentage of African American (vs. non-AA) students, $\lambda^2(1,720) = 14.17$, $p = .0002$; a lower percentage of students receiving free or reduced price lunch, $\lambda^2(1,671) = 20.04$, $p < .0001$; a higher percentage of 4th graders, $\lambda^2(1,710) = 8.28$, $p = .004$; and a lower percentage of students with higher reading scores, $\lambda^2(1,710) = 12.145$, $p = .016$. On outcome measure baseline scores, we found TFGA versus control group differences on five subscale/index scores, with all but one indicating higher (i.e., worse) scores for students in the TFGA group of the follow-up cohort. TFGA students scored higher on the Shift subscale, $t(1,714) = -3.12$, $p = .002$, the Working Memory subscale, $t(1,713) = -2.29$, $p = .022$, and the Behavior Regulation Index, $t(1,712) = -2.16$, $p = .031$ of the *BRIEF*. TFGA students also exhibited higher baseline scores on the Internalizing subscale of the *CAB-T*, $t(1,711) = -2.21$, $p = .027$. Conversely, students in the control group of the follow-up cohort showed higher baseline scores on the Trait Anger subscale of the *AESC*, $t(1,694) = 2.25$, $p = .025$. To account for these differences, we included gender, race, lunch status, grade, reading and math scores, and baseline score in multilevel models for each outcome variable to determine treatment effects at 1-year follow-up.

Tools for Getting Along Efficacy at One-Year Follow-Up

Prior to conducting analyses, we reversed scores for study subscales and individual items where a lower score indicated more negative performance. Thus, all measures can be interpreted uniformly such that a high score indicates worse performance. Pretest and

Table 1 Means and standard deviations for full follow-up cohort

Measure	Control				Treatment			
	Pretest		Follow-up		Pretest		Follow-up	
	n	*M* (*SD*)	*n*	*M* (*SD*)	*n*	*M* (*SD*)	*n*	*M* (*SD*)
PS Knowledge	344	12.20 (3.01)	274	13.96 (3.46)	345	12.38 (3.31)	347	17.07 (4.87)
BRI	352	41.61 (15.14)	331	42.62 (14.41)	362	44.09 (15.44)	341	43.65 (14.93)
Inhibit	352	15.03 (6.06)	331	15.94 (6.58)	362	15.59 (6.13)	342	15.78 (6.12)
Shift	353	13.77 (4.82)	331	13.81 (4.44)	363	14.95 (5.29)	343	14.60 (5.00)
Emot control	352	12.81 (5.17)	331	12.88 (4.86)	362	13.55 (5.21)	342	13.29 (5.06)
MI	352	67.89 (22.88)	330	69.52 (22.47)	362	70.63 (22.81)	340	72.37 (24.07)
Organize	352	10.15 (4.08)	330	9.92 (3.76)	362	10.56 (4.02)	341	10.46 (4.04)
Initiate	352	11.24 (3.87)	331	11.51 (3.96)	363	11.63 (4.01)	343	11.98 (4.16)
Monitor	352	15.94 (5.42)	331	16.36 (5.35)	362	16.48 (5.48)	342	16.73 (5.66)
Work Mem	352	15.00 (5.51)	331	15.74 (5.51)	363	15.94 (5.56)	342	16.42 (5.75)
Planning	352	15.56 (5.61)	331	16.01 (5.48)	363	16.05 (5.34)	343	16.77 (5.89)
Internalizing	350	30.50 (11.57)	334	30.80 (10.47)	363	32.43 (11.78)	335	30.86 (11.51)
Externalizing	350	33.15 (16.38)	334	34.39 (17.32)	362	34.81 (16.95)	334	33.94 (16.49)
Proactive Agg	346	4.76 (2.69)	329	4.87 (2.78)	362	4.83 (2.56)	336	4.94 (2.53)
Reactive Agg	343	6.40 (3.22)	330	6.52 (3.27)	345	6.58 (3.17)	336	6.66 (3.24)
Anger Out	342	11.65 (4.50)	269	11.25 (4.34)	351	11.63 (4.29)	346	11.57 (4.22)
Trait Anger	344	19.98 (5.97)	270	19.23 (6.17)	352	19.01 (5.39)	346	20.17 (5.89)
Anger Control	342	20.16 (4.90)	269	19.66 (4.62)	352	20.03 (4.46)	346	20.61 (4.27)
Rational PS	341	59.47 (16.51)	263	64.47 (16.32)	352	58.63 (16.20)	335	62.87 (16.80)
Impulse/Careless PS	343	23.77 (7.69)	265	24.08 (7.57)	353	24.37 (7.16)	336	24.78 (8.16)
Avoidance PS	343	16.27 (5.28)	265	16.12 (5.01)	353	16.66 (5.35)	336	16.29 (5.28)
Pos P Orientation	343	12.84 (4.35)	265	13.79 (4.58)	353	12.50 (4.39)	336	13.74 (4.55)
Neg P Orientation	343	24.80 (7.64)	265	23.49 (8.02)	354	25.00 (7.98)	337	24.50 (7.82)

Sample sizes differ due to measure-specific missing data. *PS* problem solving, *BRI* Behavior Regulation Index, *MI* Metacognitive Index, *Pos P Orientation* positive problem orientation, *Neg P Orientation* negative problem orientation

posttest follow-up means and standard deviations for the follow-up cohort are shown in Table 1.

As shown in Table 2, significant positive main effects for condition were found for three outcomes: Problem-Solving Knowledge, and the Trait Anger and Anger Control subscales of the AESC. As expected, TFGA students had higher knowledge of curricular content at follow-up than control group students. Students in the control group, however, had lower scores (indicating better outcomes) at follow-up than TFGA group students on self-reported trait anger and anger control. We also found significant pretest by condition interaction effects for the *BRIEF*'s BRI and the subscales of Inhibit and Shift, and for the Internalizing and Externalizing subscales of the CAB. As shown in Fig. 1, TFGA group students with higher scores at pretest had lower scores at follow-up relative to controls on four subscales of these teacher-report measures. (*Note*. The BRI interaction pattern, which includes the Inhibit and Shift subscales, was similar to those shown in Fig. 1.)

In addition to these findings, we also found marginally significant pretest by condition interaction effects for the Initiate and Working Memory subscales of the *BRIEF*, the Proactive Aggression subscale, and the Anger-Out subscale of the AESC.

Table 2 also shows ICC and effect size calculations using R^2 statistics. As expected, teacher-report measures had higher ICC values (mean ICC = .09) because student self-reports (mean ICC = .02) were more likely to be independent of teacher and classroom influences. The R^2_{model} value indicating the total

Table 2 Sample size, ICCs and estimates for multilevel modeling

Measure	*N*	ICC	Estimate				
			Pretest	Condition	Pretest by condition	R^2_{model}	$R^2_{condition}$
PS knowledge	635	.168	.295*	1.500*	.012	.360	.146
BRI	656	.058	.441*	−.209	−.111*	.225	.025
Inhibit	656	.045	.513*	−.293	−.119*	.308	.025
Shift	658	.077	.265*	.219	−.111*	.117	.022
Emot control	657	.039	.388*	−.039	−.063	.162	.008
MI	656	.131	.456*	.754	−.069	.289	.014
Organize	656	.084	.387*	.234	−.051	.193	.008
Initiate	657	.138	.372*	.190	−.078†	.252	.014
Monitor	656	.102	.459*	−.020	−.058	.253	.007
Work Mem	657	.132	.383*	.211	−.093†	.287	.022
Planning	657	.146	.391*	.303	−.044	.284	.009
Internalizing	654	.075	.311*	−.261	−.102*	.144	.016
Externalizing	653	.044	.490*	−.698	−.092*	.268	.016
Proactive Agg	650	.069	.435*	.026	−.106†	.195	.015
Reactive Agg	632	.001	.449*	.026	−.041	.218	.003
Anger Out	638	.008	.406*	.136	−.112†	.196	.020
Trait anger	640	.049	.353*	.665*	−.071	.141	.022
Anger control	639	.036	.333*	.447*	−.051	.179	.019
Rational PS	636	.001	.394*	−.520	.049	.178	.004
Impulse/careless PS	639	.047	.396*	.383	−.020	.170	.003
Avoidance PS	639	.001	.166*	.118	.020	.087	.001
Pos P Orientation	639	.017	.238*	.050	−.016	.103	.001
Neg P Orientation	640	.001	.429*	.641	−.050	.239	.010

* $p < .05$. † <.10 after FDR adjustment. *N* number of observations used in *Mplus*. R^2_{model} explained variance by all predictors. $R^2_{condition}$ explained variance after adding condition and the interaction into the model. *PS* problem solving, *BRI* Behavior Regulation Index, *MI* Metacognitive Index, *Pos P Orientation* positive problem orientation, *Neg P Orientation* negative problem orientation

variance in an outcome measure that can be explained by the model (i.e., condition and covariates) was .23 on average for all teacher-report measures and .16 on average for student self-report measures. $R^2_{condition}$ statistics were used to understand how much variation was explained by condition and when they were added into the model that included all remaining predictors. When significant, condition and condition by pretest interaction explained approximately 2 % of the remaining variance.

We investigated Level 1 and Level 2 standardized residuals and did not detect a substantial threat to the assumption of normal distribution or any possible outliers.

Effects of Student Characteristics

Although a focus on how demographic and achievement variables might influence outcome was beyond the scope of this study, there were significant main effects of gender, grade, FCAT reading and FCAT math scores after controlling for condition effects. When the gender effect was significant, girls had significantly lower scores than boys. When the grade effect was significant, 5th graders had significantly higher scores compared to others. In general, students who were above the average on FCAT scores had lower (better) scores on outcome measures.

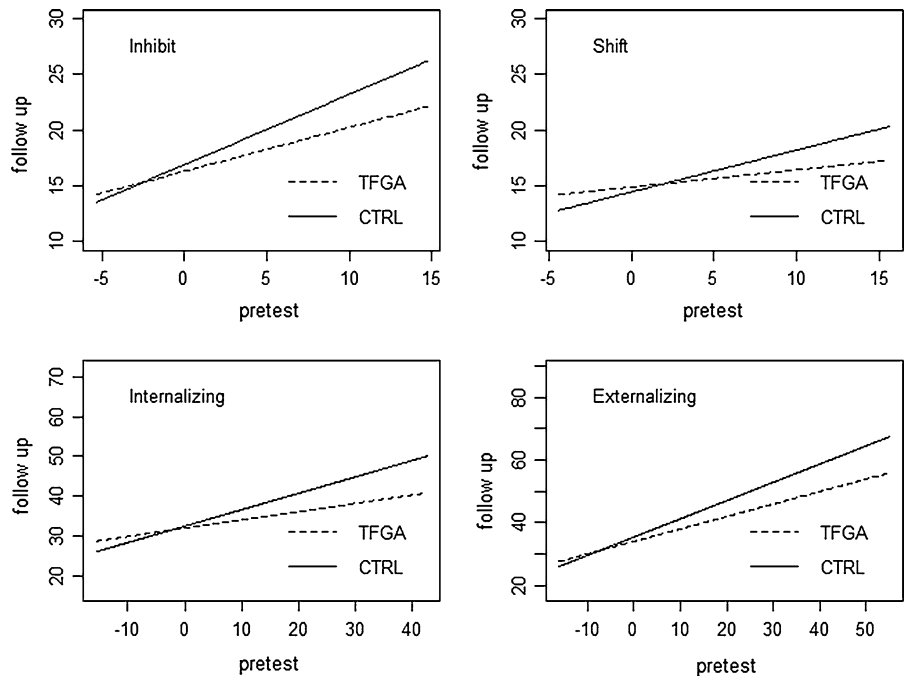

Fig. 1 Significant pretest by condition interaction effects for follow-up sample

Discussion

The results of this study indicated that TFGA has positive effects on student outcomes 1 year after teachers finished teaching the curriculum, particularly for students with elevated baseline risk. Although results from Daunic et al. (2006, 2012) indicated significant intervention effects at posttest, neither study was designed to identify longer-term effects or the occurrence of effects that might emerge over time. As Smith et al. (2009) described TFGA as a preventive curriculum, questions relative to its effects after a significant time period following cessation of implementation seemed worthy of investigation.

Effects on Social Problem Solving

As expected, we found a main effect for knowledge of concepts in the TFGA curriculum indicating that, on average, students exposed to TFGA had significantly more social problem-solving content knowledge at 1-year follow-up than students in the control condition. Daunic et al. (2012) discussed how student knowledge of content related to social problem solving is fundamental to the enactment of related skills. Having procedural knowledge that allows for making efficient and successful choices in social interactions, especially outside of the classroom, increased the likelihood that students would engage in appropriate behavior and thus, receive positive reinforcement from peers, teachers, administrators, and caregivers. The fact that students in the TFGA condition showed significantly more knowledge about curricular concepts than control group students 1 year after they had been taught all the lessons is thus a positive finding.

Daunic et al. (2012) found main effects of TFGA on self-reports of positive problem orientation, (i.e., tendency to approach problems positively) and rational problem solving (i.e., recognizing and defining problems; generating, evaluating and choosing solutions; planning for implementation), but we did not find evidence of this at 1-year follow-up. Since positive problem orientation is the motivational component for solving social problems, it may be that continued training is required to reinforce students' optimism and the confidence to perceive that they are approaching problems positively, in control of their actions, and attaining social goals. As students encounter situations that engender strong emotions and require more complex problem-solving approaches, especially as they move into adolescence, it may be the case that the supports needed to continue a positive social problem-solving approach were

insufficient following the cessation of the universally delivered curricular intervention.

We also found no evidence for an effect of TFGA on self-reports of a rationale problem-solving style at 1-year follow-up. As this aspect of problem solving requires the use of a sequence of steps, reorientation and continued adult monitoring may be necessary to sustain this outcome. Students may need to be reminded to use self-statements to guide their decision-making as social situations become increasingly complex. While positive orientation to approaching social problems is the motivational component of social problem solving, using a step-by-step framework is a cognitive exercise. As such, students may not perceive that they are using a rational, deliberative, and process-oriented approach without continued instruction that helps them move from conscious effort to automatic responses.

Effects on Teacher-Reported Executive Function

There were significant condition by pretest interaction effects for teacher-reported EF at 1-year follow-up on the Behavior Regulation Index (BRI), consistent with those found at post by Daunic et al. (2012). Also consistent with Daunic et al. were condition by pretest interaction effects on the BRI subscales of inhibition and shift or cognitive flexibility. These interactions indicated that students with relatively poor baseline teacher ratings on these measures who were taught TFGA had significantly better ratings at follow-up than controls. These findings suggest that TFGA's explicit focus on stop-and-think strategies (inhibition) and response generation using cognitive flexibility (shift), both part of the curriculum's cognitive-behavioral social problem-solving approach, was effective in improving teacher ratings of these EF-associated skills.

We also found marginally significant delayed pretest by condition interaction effects on the teacher rated EF-associated skills of working memory and initiate, part of the Metacognition Index of the *BRIEF*. In the case of working memory, TFGA provides cognitive strategies such as self-talk that enhance verbal working memory and thus increase the capacity to use information (see Baddeley, 2007). Working memory relies on the subvocal rehearsal of information, such as rules, that prolong its use. As part of a problem-solving sequence, TFGA promotes specific skills such as solution generation and enactment, and subsequent outcome evaluation. Thus, the strategies promoted in TFGA may, over time, increase reflective processes and strengthen working memory related skills for students with relatively poor baseline ratings. The marginally significant pretest by condition interaction effect at follow-up for the teacher-reported EF skill of initiating activities is consistent with the post TFGA findings reported by Daunic et al. (2012).

Effects on Anger, Aggression, and Externalizing Behaviors

Contrary to Daunic et al. (2012) and counter to our expectations for this study, we found a negative main effect of TFGA on self-reported trait anger (i.e., thoughts and attitudes about anger-inducing situations) and anger control (i.e., expression of anger outwardly that may include aggression) in the intervention group relative to the control group, at 1-year follow-up. Kerr and Schneider (2008) note that individuals with high trait anger are likely to have less cognitive control of their anger and engage in more outward anger expression. Similarly, Rydell, Berlin, and Bohlin (2003) found that the outward expression of anger predicted externalizing problem behaviors at school and home and, conversely, that anger control predicted lower levels of externalizing problems. Our findings at follow-up, however, did not indicate a similar relation between the more negative student self-reports of trait anger and anger control and the more positive teacher reports of aggression and externalizing behavior for students in the TFGA group 1 year following curriculum delivery. We speculate that the unexpected self-reported anger outcomes for students who had been taught TFGA could be the result of an increased awareness of and knowledge about anger, its components, and the skills needed to manage anger adequately. This awareness may have sensitized these students over time to their feelings of anger and their less than adequate anger control, so that they rated themselves more critically compared to controls.

Regarding outcomes related to aggression, Daunic et al. (2012) found that students with relatively poor baseline scores benefited from TFGA on proactive aggression compared to students in the control condition, but found no effect for reactive aggression. Our follow-up study findings were consistent with this

pattern, although the pretest by condition interaction effect on proactive aggression was only marginally significant. As indicated in the Daunic et al. study, reactive aggression can result from deficits in an early stage in the problem-solving sequence suggested by the Crick and Dodge (1994) model, where aggressive students may have a hostile attribution bias and thus a faulty interpretation of social stimuli (Bierman, 2004; Dodge & Coie, 1987). As such, students with reactive aggressive profiles may not benefit from a CBI such as TFGA, because their knowledge structures or aggressive schemas, strengthened through repeated experience, have a strong influence on cue interpretation and attribution and are resistant to change. Proactive aggression, on the other hand, is related to deficits that occur later in the problem-solving sequence (Dodge & Coie). Dodge and Coie define proactive aggression as instrumental and organized aggression, without the autonomic arousal associated with reactive aggression, and without the deficits at the cue interpretation stage. Students who use aggression proactively tend to have better social skills and a positive expectation for engaging in aggression, with fewer processing deficits than are associated with reactive aggression. As such, TFGA seems to be more effective both at post treatment and, although marginally significant, at 1-year follow-up for students who have higher proactive aggression scores at pretest but may have adequate impulse control and be better able to change their instrumental use of aggression to more socially adaptive choices.

We found positive effects of TFGA at 1-year follow-up for students who had higher pretest scores on externalizing behavior compared to controls. The externalizing behavior subscale of the *CAB-T* assesses problematic behaviors directed toward others (under-control of emotions), such as rule breaking, insulting others, and being generally difficult to manage. The externalizing subscale relates to level of emotion and the ability to regulate that emotion in a variety of situations. Externalizing problems have been associated both with elements of EF (Oldehinkel, Hartman, Winter, Veenstra, & Ormel, 2004; Olson et al., 2005) and with level of anger (Eisenberg et al., 2009). The pretest by condition interaction effect on externalizing behaviors at 1-year follow-up may be related to the similar positive outcomes we found on teacher reported inhibition and cognitive flexibility.

Effects on Internalizing Behavior

As with externalizing behavior, we found positive effects of TFGA for students who had higher pretest scores on internalizing behavior at 1-year follow-up compared to controls. The internalizing behavior subscale of the *CAB-T* assesses behaviors directed toward oneself (over-control of emotions), such as crying easily, being easily startled, or being perceived as emotionally fragile, that are emblematic of depression, anxiety, and somatization. As with externalizing behavior, internalizing behavior is affected by one's level of emotion and regulation abilities. Internalizing problems are also typically associated with anger, although Eisenberg et al. (2009) believe this relation may be somewhat weaker than for externalizing behavior.

In the Daunic et al. (2012) study, TFGA did not affect internalizing and externalizing measures at post, but there were significant pretest by condition interaction effects on teacher-reported EF related skills as measured by the *BRIEF*. We suggest, therefore, that TFGA provided instruction that took some time to result in positive effects on teacher reports of internalizing and externalizing behavior for students with relatively poor baseline scores. As such, instruction in skills that laid the foundation for the development of self-regulation eventually manifested itself in behaviors assessed by the *CAB-T* for these students. Thus, after students experienced a full year of development, TFGA group students with higher (i.e., poorer) teacher-rated internalizing and externalizing behavior at baseline were better able to translate improved self-regulatory skills into a decrease in teacher-rated externalizing or internalizing behaviors at follow-up, as compared to control group students.

Limitations and Future Research

Despite some promising results at 1-year follow-up, there are several limitations to this study. First, we able to follow only about 55 % of the students who participated in the Daunic et al. (2012) randomized controlled trial. In comparing the follow-up sample to the initial study sample, we found baseline differences on two demographic variables (FRL, grade) and one outcome measure (positive approach to problem solving). Although the demographic variables were not of primary interest, we controlled for them in

analytical models, as well as for pretest scores on all outcome measures. We also found that the follow-up sample students in the TFGA condition were at higher risk than students in the control condition at baseline on five demographic variables and five outcome variables. While we controlled for these differences by including them as covariates in our statistical models of outcome variables, there may be other undetermined characteristics associated with these differences that are potentially influential.

Second, while we had findings across multiple student self-report and teacher measures, we did not include observational data to add to the validity of findings from teacher-reports, such as those for internalizing and externalizing behavior. Direct observation is considered an effective ecological assessment that is useful in validating indirect assessments (e.g., teacher reports) of outcomes related to the expression of emotion. It is noteworthy, however, that teachers who completed the *BRIEF*, *CAB-T,* and aggression measure 1 year following TFGA implementation were unaware of the previous year's study or student assignment to condition. This is a significant strength of this study, because these teacher-reported assessments are relatively unbiased compared to assessments completed by teachers directly involved in the delivery of TFGA.

With regard to future research, Daunic et al. (2006) noted that anger management and social problem-solving skills are complex, and that skill efficacy requires repetitive cognitive and behavioral practice. Moreover, there is a continual need to identify factors that can optimize long-term and generalized treatment effects, including the impact of adding intervention components such as peer and adult support and mentoring, academic tutoring, and structured parent/caregiver involvement.

Moreover, teacher training is a vital element for study, because implementation of preventive interventions such as TFGA requires teachers to have some understanding of their underlying theoretical components (e.g., EF, SR) to insure effective and efficient delivery (Gerber & Solari, 2005). Thus, the quality of professional development and subsequent teacher skill in delivering curricula such as TFGA may be associated with the extent and durability of relevant outcomes. In addition, the effective delivery of social-emotional curricula like TFGA in schools where there are large percentages of students at risk for school failure because of social inequality, minority status, and significant behavioral and academic problems, and where aggression and violence are major concerns, may be particularly salient and worthy of investigation (Greenberg, 2004). More longitudinal studies are needed to determine the efficacy of CBIs in such schools, with mediational analyses that could clarify variables that strengthen sustained effects. Also of potential value to investigate in further studies would be whether a curriculum such as TFGA has more sustained effects if delivered in small-group settings for indicated students. Such studies could shed light on whether the increase in school resources often needed for small-group instruction would be warranted.

In summary, findings about the efficacy of TFGA immediately following its universal delivery (cf. Daunic et al., 2006, 2012) and at 1-year follow-up as reported in this study provide some evidence that a CBI such as TFGA can promote social and emotional learning in preadolescent students who have relatively poorer baseline skills related to SR. Our findings show that focusing on teaching a multi-step cognitive-behavioral process for solving social problems through a viable and feasible classroom-based curriculum implemented at the universal level can be an effective approach.

As students move into adolescence, they encounter social situations that can evoke strong emotions and require complex social problem solving and self-regulatory skills. School administrators and classroom teachers need to teach social-emotional curricula such as TFGA throughout the school year. The support provided by such programs offers students a positive orientation to solving problems and reinforces them for approaching problems effectively, gaining control of their own behavior, and ultimately, attaining their social goals through manifesting the social problem solving skills they have learned.

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