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Measuring the Cool Tool as a Targeted Intervention to Minimize Teacher Reprimands and Students' On-Task Behaviors in an Urban Elementary School

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This study measured the effects of a targeted intervention, The Cool Tool, implemented in the secondary prevention tier to minimize teacher reprimands and students' on-task behaviors in an urban elementary school. The participants in the social skills intervention programs were seven teachers, across grades K-5. Assessments included pre-posttest classroom observations to measure teacher praise versus reprimand and students' on versus off task behaviors. Data on the effects of the social skills program showed that teachers did not increase their rates of praise statements toward students, however, levels of students' on task behaviors increased following the implementation of a social skill program.

Keywords: Targeted Intervention, Social Skills, Teacher Praise, Students' On/Off Task Behaviors

Introduction

Consistently, the research literature has documented disproportionality among students of different racial and ethnic backgrounds in special education. Learning disability (LD) identifications are not distributed proportionately throughout the school population. Although previous literature has tended to focus on the disproportional identification of African American students with cognitive disability and emotional disturbance (Obiakor, 2001, 2006, 2007; Obiakor et al., 2004; Skiba et al., 2008; Skiba, Shure, & Williams, 2012), there is evidence to suggest that the gap between African American and White students in rates of identification with LD have increased since the 1970s, with African American students being increasingly more likely to be identified (Oswald et al., 1999; U.S. Department of Education, 2010); Asian students are at lower risk than White students of being in receipt of special education services for LD (U.S. Department of Education, 2010). Research shows that English Language Learners (ELLs) are typically either over-represented or under-represented in district special education programs across the U.S. The ELL population percentages are disproportionate when compared to their English speaking peer populations' percentages. Research demonstrates that ELLs with the least amount of language support are most likely to be referred to special education. ELLs receiving all of their instruction in English were almost three times as likely to be in special education as those receiving some native language support (Artiles et al., 2005).

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Researchers have noted that disproportionality is a complex phenomenon and is influenced by a number of factors (e.g., poverty, schools, multiple risk factors) (see Obiakor et al., 2004; Skiba et al., 2008). Urban students who are at-risk for being labeled as LD often come to school with interpersonal issues and antisocial behaviors (e.g., hitting, lying, and aggression) that interfere with the teachers' strategies to focus their attention on academic instruction. These students who are at-risk for being labeled as LD may experience emotional, behavioral, and interpersonal issues with general educators that may impede academic achievement gains and the development of pro-social skills (Bullis, Walker, & Sprague, 2001; Utley, Obiakor, & Bakken, 2011; Vaughn et al., 2010). Shifrer, Muller, & Callahan (2011) noted that "disproportionate identification with a learning disability is perceived to be one of the central problems within special education for several reasons: (a) students may be referred to special education in response to issues other than a LD, (b) the identification process may be inconsistent and/or inaccurate, and (c) the disproportionately under-identified may not receive needed services." (p. 247) Unfortunately, little research is available on empirically-validated interventions to decrease racial and ethnic disproportionate student academic and behavioral outcomes (e.g., Skiba et al. 2008; Utley, Obiakor, & Bakken, 2011).

Evidence-based programs and interventions targeting special education programs fall within a multi-tiered system of support (MTSS) which consists of increased instructional time, interventions, and improved educational outcomes for students in general and special education. The National Association of School Psychologist (NASP) Position Statement, "Appropriate Behavioral, Social, and Emotional Supports to Meet the Needs of All Students" (NASP, 2009) recommended the MTSS comprehensive framework to address the academic, social, emotional, and behavioral development of children and youth. The MTTS framework consists of principles of response-to-intervention (RTI) and positive behavioral interventions and supports (PBIS) and integrates a continuum of system-wide resources, strategies, structures, and evidence-based practices for addressing barriers to student learning and discipline. Sugai and Horner (2009) identified the following features of the MTTS model: (a) interventions supported by scientifically based research; (b) interventions organized along a tiered continuum that increases in intensity (e.g., frequency, duration, individualization, specialized supports); (c) standardized problem solving protocol for assessment and instructional decision making; (d) explicit databased decision rules for assessing student progress and making instructional and intervention adjustments; (e) emphasis on assessing and ensuring implementation integrity; and (f) regular and systematic screening for early identification.

Within the MTTS model, one educational approach to solving problem behaviors in school-aged populations is the implementation of school-wide positive behavior support (SWPBS). Features of a successful SWPBS program includes implementing (a) positive behavioral expectations, (b) specific methods to teach these expectations to staff and students, (c) proactive supervision or monitoring of behaviors, (d) contingency management systems to reinforce and correct behavior, and (e) methods to measure outcomes and to evaluate progress (Luiselli, Putnam, & Sutherland, 2002; Taylor-Greene et al., 1997).

The SWPBS model has three tiers with specific core elements at the (1) primary prevention/school-wide, including universal school-wide management strategies to reduce disruptive behavior and teach prosocial skills to all students; (2) secondary prevention, including targeted or group-based intervention strategies for students at risk of developing more serious antisocial behaviors (about 5% to 10%); and (3) tertiary prevention, including functionally derived treatment strategies for the small number of students (about 1%-3%) who engage in more chronic patterns of antisocial behavior (Horner, Crone, & Stiller, 2001; Horner, Sugai, & Lewis, 2005; Lewis & Sugai, 1999; Irvin et al., 2007; Luiselli et al., 2005; Luiselli, Putnam, & Sutherland, 2002; Sugai et al., 2000).

Recently, targeted interventions at the secondary prevention level have received more attention as educators search for evidenced-based strategies to address problem behaviors of students with LD. According to Todd, Campbell, Meyer, & Horner (2008), targeted interventions are designed to "provide efficient behavior support for students at risk of more intense problem behavior. Three elements have been identified as key to effective, targeted interventions: organizational systems, intervention practices, and data use. Intervention practices include strategies such as social skills training that focus on teaching the student (a) appropriate social skills, (b) when to use the skill, and (c) routines for using the targeted intervention" (pp. 46-47). The acquisition and learning of social skills occurs through the environmental interactions of parents, peers, and significant others. Thus, social skills are learned behaviors that require individuals to evaluate situations, choose social skills, and perform social tasks. The pedagogical practices (modeling/demonstrations, positive and negative feedback, student-centered learning, activation and use of participants' background knowledge, maintenance/generalization strategies, and inclusion of community in training) have been identified as effective (Cartledge & Koureau, 2008).

School data variables may include individual student progress (e.g., on task versus off task data) and teacher variables (e.g., praise versus reprimand). Research conducted by Witzel and Mercer (2003) revealed that "students who received contingent verbal praise (praise given only for appropriate student behaviors and not for general tasks) demonstrated significantly higher intrinsic motivation, as measured by both time on task and attitudes, than did the students who received no contingent verbal praise" (p. 88). More than two decades ago, research by Alber, Craft, & Heward (1998) stated that contingent teacher praise and attention produced reliable and significant improvement in children's behavior. Research has indicated highest behavioral benefits when the ratio of praises to reprimands is in excess of 5:1 (Partin, 2010).

The primary purpose of this article is to present data measuring the implementation of a targeted intervention (i.e., social skills instruction) at the secondary (classroom) prevention tier of a PBIS program conducted in an urban elementary school. The major research questions that guided this study were: (1) To what extent does a social skills program implemented at the targeted level in the classroom improve teacher behaviors (praise versus reprimand)? (2) To what extent does a social skills program implemented at the targeted intervention level in the general education classroom improve students' on-task behaviors?

Method

Participants and Settings

The school's composition consisted of 335 students enrolled in grades kindergarten through 5th grade. The student population in the school was Hispanic (68%), followed by African American (24%), White (4%), and Other (4%). The gender breakdown was 52% (female) and 48% (male), respectively. The ethnic/racial composition of the teaching staff was White (68%), Hispanic (19%), and African American (13%). The participants in the social skills intervention programs were seven teachers, across grades K-5.

School-wide Behavioral Expectations and Skills

The teachers and research staff discussed the problem behaviors of students in the classroom and school. The 5 most troubling problem behaviors of students were: (1) an inability to focus and complete tasks/assignments, (2) poor attitudes toward school, (3) attention seeking, escape, and avoidance behaviors (e.g., out of seat), (4) disruptive and destructive behaviors, and (5) not listening to adults. Additional group meetings with the research staff and teachers were held to: (a) provide an overview of social skills strategies, (b) discuss behavioral expectations and skills, and (c) outline a schedule of the program.

Two behavioral expectations and skills were agreed upon by teachers and research staff: (1) *Be Respectful of Others and Self*, and (2) *Be Safe*. The skills for *Be Respectful of Others* and *Self* consisted of (a) always doing your best, (b) listening to the teacher and following directions, and (c) respecting yourself and others. The skills for *Be Safe* consisted of (a) keeping feet and hands to self, and (b) walking at all times in the school and classroom.

Social Skill Intervention Training Program

The social skill intervention program involved 7 out of the 14 teachers in the school. Based upon school-wide observation data, teachers whose praise vs. reprimand ratios and students' on-task behaviors were below the school's averaged scores of 90% participated in the intervention program.

Social Skill Strategy. The *Cool Tool*, a six-week group-based social skill strategies, was adapted to teach behavioral expectations and skills (Langland, Lewis-Palmer, & Sugai, 1998). Instructional components of the *Cool Tool* consisted of (a) teaching appropriate skills and de-emphasizing inappropriate behaviors; (b) systematic teaching of social skills; (c) personalization of instruction to fit the classroom environment; and (d) elimination of extensive teacher preparation. The lesson format for teaching behavioral expectations and skills consisted of (a) a skill name to label and communicate specific behaviors and activities; (b) teaching examples and non-examples across a number of contexts in which a social skill should be applied (e.g., classroom, and hallway), (c) implementing student activities (e.g., role playing), and (d) implementing after the lesson activities to enhance acquisition, build fluency, and facilitate generalization and maintenance of skills. These activities involved the use of pre-corrections, prompts, reminders, tokens, and teacher praise. (See Figure 1)

Figure 1. **Lesson Format for Behavioral Expectations and Skill**

Expectation #1: Be Respectful of Others and Self

Time in Minutes	Skill: Accept Responsibility for Your Actions Setting: Classroom/Hallway
3	***REMEMBER*** to hand out tokens to students who accurately follow the Expectation Skill during instruction time. Introduction: 1. "Today we are going to talk about how to BE RESPONSIBLE by taking responsibility for your actions." 2. What do you think making accepting responsibility might look like? • write student responses on the board • underline or circle key words such as not making excuses or lying, apologizing, etc.
1	3. Either by using the overhead, or by writing next to student responses, read the following steps for accepting responsibility: 1. APOLOGIZE for what you did wrong 2. LISTEN to the adult who is talking to you 3. DO NOT ARGUE 4. DO NOT make EXCUSES for what you did 5. DO what you are told to FIX IT
1	Teacher Model: Demonstrate accepting responsibility for your actions (such as taking responsibility for breaking something) while repeating the steps listed above out loud.
1 2 1	Role Play: Non-example**:** Using an example, demonstrate the skill incorrectly by (1) pretending you are a student and push someone (2); having a student pretend they are the teacher; (3) having the 'teacher' say "I saw you push him/her"; (4) 'student' (you) says "I didn't do anything, well ok, so I pushed him but he looked at me and I don't like him; (5) 'teacher' says " you need to tell him you're sorry and go turn your card" (6) 'student' says "I don't want to" and stomp your foot. Ask the class if you were making a good decision and what you could have done better. Example**:** Using the same example, demonstrate the skill <u>correctly</u> by following the steps: (a) Admit to hitting him, (b) Listen to the consequences, and **© Then do as you are told.**
1	Review: 1. APOLOGIZE for what you did wrong 2. LISTEN to the adult who is talking to you 3. DO NOT ARGUE 4. DO NOT make EXCUSES for what you did 5. DO what you are told to FIX IT

	Practice Throughout the Day: Periodically through the day, remind students to make good decisions, reward students who show this skill. 2. Emphasize the (consequences) positive reinforcement they will gain for showing those behaviors, such as teachers' praise, stickers, tickets, etc. 3. Remember to catch the students practicing the new skills and verbally and/or tangibly reinforce those behaviors.
7	Homework: Fill in the attached worksheet. Bring your homework back tomorrow and hand it to your teacher.

Source: McGinnis, E., & Goldstein, A. P. (1997). Skillstreaming the elementary school child (rev. ed.), Research Press.

Social Skill Strategy Protocol and Training. Group and individual training sessions were held with teachers to teach them how to implement the social skill strategy protocol for each behavioral expectation and skill. The protocol consisted of the following 11 steps/strategies: (1) discussing the 'skill of the day' and rationale for the skill; (2) calling on students to describe and explain skills by using examples and non-examples; (3) presenting true definitions of skills, (4) modeling appropriate behaviors with teacher and/or students; (5) conducting role playing sessions; (6) using questions to interactively define each part of the skill with students; (7) completing expectation activities; (8) marking transitions at the beginning and end of activities (i.e., 2 minute warning); (9) counting and writing number of tokens earned on the back of activity sheets; (10) collecting activity sheets, and (11) awarding re-enforcers to students. Posters displaying each of the behavioral expectations and skills were posted as reminders to teachers and students in classrooms and the hallway.

Behavioral expectations and social skill strategies were taught for 30 minutes three days a week for a 6-week period to both the teacher and students in classrooms by a trained research assistant in social skill instruction using the *Cool Tool* lesson format. In addition, social skill lessons were selected from the published curriculum titled, *Teaching Friendship Skills.* During the first four weeks of the social skill instruction, the teacher observed the research assistant teaching social skill strategies and monitored the students' behaviors. During the last 2 weeks of the social skill program, classroom teachers were responsible for implementing the entire social skill strategies.

Reinforcement System. A token-economy reinforcement system was implemented in each classroom. Tokens were rewarded to students for displaying appropriate behaviors during lessons and activities. The appropriate behaviors were (a) raising your hand to speak and waiting to be called on, (b) eyes and ears on the speaker, and (c) hands and feet still. Tokens were added together at the end of the session and the student with the most tokens earned a prize (e.g., candy, pencils, pens, and small toys).

Social Skill Procedural Checklist

The social skill procedural checklist was designed to assess the accuracy with which teachers followed procedures identified in the lesson format for teaching social skill instruction. This 10-item procedural checklist included the behaviors described in the social skill intervention protocol. The research staff completed the checklist marking yes, no, or not applicable for each item observed during the implementation of social skill strategies. Checklists were completed three times each during the 5th and 6th weeks of implementation of the social skill strategies. (See Figure 2)

Figure 2. **Social Skills Procedural Checklist**

Teacher: _____ Date: _____ Observer: _____

Social Skills Curriculum: _____

1.	The teacher presents the social skill instruction as directed in the script/manual.	Y	N	NA
2.	The teacher defines the skill according to school virtues or classroom rules.	Y	N	NA
3.	The teacher is actively involved in the lesson.	Y	N	NA
4.	The students have an opportunity to respond during the lesson (activities and discussion, not lecture)	Y	N	NA
5.	The teacher uses specific examples and non-examples for the expected behavior.	Y	N	NA
6.	The teacher gives feedback to the students on their ideas for use of the skill (praise, correction).	Y	N	NA
7.	The teacher circulates amongst the groups to monitor practice activity.	Y	N	NA
8.	The teacher provides verbal praise for specific appropriate behaviors (in presence of external re-enforcers or without).	Y	N	NA
9.	Other: The teacher uses incidental teaching to reinforce skill use	Y	N	NA
	Observed: _____ _____ Teacher Reported: _____ _____			
10.	The students receive external re-enforcement for social skills use/positive peer interaction (points, bonuses, special activity) fairly and evenly.	Y	N	NA

Describe reward system: _____

Describe consequence system: _____

Measurement of School-wide Observations

Classroom observations of teachers and students. The benchmark for determining the average teacher praise vs. reprimand ratio for a classroom is 5:1 (Sutherland, Wehby, & Yoder, 2002). In this study, two classroom observations were conducted across grades kindergarten through 5th grade with 14 teachers to determine the average school-wide teacher praise vs. reprimand ratio. The results of aggregated data showed that the averaged school-wide teacher praise vs. reprimand ratio was 3.2:1.

In the research literature, the benchmark for student on/task behavior is 85% (Lewis, 2006). In this study, two classroom observations were conducted across each grade from kindergarten through 5th grade with approximately 14 teachers to determine the school-wide averaged students' on task versus off task behaviors. The averaged student on-task behavior was 77%; the averaged student off-task behavior was 23%.

Measurement of Teacher and Student Behaviors

Observation training procedures and reliability. Direct classroom observations were conducted by trained research assistants and doctoral students employed at a large research institution. Training procedures consisted of reliability sessions until three consecutive sessions at 80% or higher were completed across each observation measure and social skills procedural checklist. Inter-observer agreement for conducting observations of students' on-task/off-task behaviors, and teacher's praise/reprimands were obtained with a second observer in the classroom. The reliability observer also completed the social skills procedural checklist for teachers. Reliability across instruments was collected for 10% of the total observations and averaged at 96%. The inter-observer agreement score among observers for the procedural checklist was 99.5%.

Teacher praise versus reprimand. Teacher praise/reprimand statements were observed and scored. The average ratio of praise and reprimand statements was computed over three 20 minute observations with a timed stopwatch. During each classroom observations, tallies (e.g., 'I' for individual teacher praise or reprimand; 'G' for group teacher praise or reprimand) were used to count praises or reprimands during 1-minute intervals for 20 minutes with a timed stopwatch. Observations varied across subject matter and consisted of three 20 minute intervals. The average ratio of praise statements was computed by adding all tallies from each the 1-minute intervals praise category and rationed against the total number of reprimands. The average ratio of reprimand statements was computed by adding all tallies from each of the 1-minute and rationed against the total number of praise statements. The ratio of teacher praise versus reprimand statements was computed on a number:1 ratio basis by dividing each number by the second number.

Students' on-task versus off-task behaviors. This observation instrument was based upon a coding system that measured (a) classroom activities (e.g., group and individual student behaviors), (b) classroom transitions, (c) teacher behaviors (e.g., attention, instruction, praise, and reprimand), and (d) behavior (e.g., students' behaviors in a specified group). To determine the percentage of time students were on/off task, the teacher divided students into groups by their location in the classroom. Group on-task versus off-task students' behaviors were recorded during 20-minute

observations using a stopwatch. Student data was taken every 30 seconds. Symbols were used to record the groups' behaviors, as well as the teachers behavior at the appropriate interval. The averaged frequency of on-task versus off- task students' behaviors were conducted across 3 observations.

Students within the classroom were divided into groups by their location allowing (generally) 3-5 students per group. Each group was then assigned a number. Observations varied across subject matter. Data intervals were 30 seconds each and data were taken instantaneously at the time marker. Symbols were used to record the group's behavior as well as the teacher's behavior during the appropriate interval. The data sheet was designed to record teachers' behaviors with a group of students, and the groups' behaviors. The on-task percentage was computed by totaling all '+' signs on the sheet and dividing by the total number of opportunities. Average on-task percentage was then computed by averaging all of the percentages from each observation together and dividing by number of observations.

Results

Research Question 1. To what extent does a social skill program improve teachers' behaviors (praise versus reprimand) and student behaviors (on/off-task)? As displayed in Table 1, the pre-averaged teacher praise versus reprimand ratio was .9:1 as compared to 1.2 (i.e., post-averaged teacher praise versus reprimand ratio). As displayed in Table 1, there was a small difference in pre and post ratios (n = .3), indicating that the social skill strategies did not significantly improve the number of praise statements given by teachers to students. Inspection of individual teacher praise versus reprimand ratios showed slight increases in teacher praise statements following the implementation of the social skill intervention program.

Table 1. ***Averaged Pre and Post Teacher Praise vs. Reprimand Ratios***

Teacher	Grade Level	Pre-Average Ratio	Reliability	Post-Average Ratio	Reliability
A	Kdg.	0.75:1	93%	0.8:1	95%
B	1st	0.82:1	93%	1.5:1	96%
C	1st	2.75:1	90%	2.1:1	93%
D	2nd	1.06:1	90%	1:1	95%
E	2nd	0.7:1	100%	0:1	98%
F	4th	0.06:1	88%	0.8:1	89%
G	5th	0.24:1	65%	1:1	100%
Average		.9:1		1.2:1	

Research Question 2. To what extent does a social skill intervention program improve student behaviors (on-task)? As shown in Table 2, the averaged pre-observation students' on task behavior was 71%, r=.84. Following the implementation of the social skills program, the averaged post-observation score 87%, r=.88, indicating that the students' increased their on-task behavior by 16 points.

Table 2. ***Averaged Pre and Post-Observation Students' On Task Behaviors***

Teacher	Grade Level	Pre On-Task Scores	Averaged Pre-Reliability Score	Post- On Task Scores	Averaged Post-Reliability Score
A	Kdg.	65%	.88	83%	.88
B	1st	73%	.88	92%	.96
C	1st	61%	.81	96%	.95
D	2nd	71%	.78	84%	.84
E	2nd	61 %	.76	88%	.92
F	4th	78%	.80	81%	.72
G	5th	89%	.96	86%	.92

Fidelity of implementation of social skill intervention program. The averaged mean of social skills was 85%. The social skills observed most frequently were (a) defining skills, (b) providing students with opportunities to respond during lessons, (c) participating role-playing scripts, (d) using examples and non-examples to describe skills, (e) giving feedback to students on the use of their skills, (f) circulating throughout the room, and (g) implementing a reward system of tokens and verbal prompts as consequences.

Discussion

The primary purpose of this article was to measure the targeted prevention (classroom) tier of a SW-PBIS program in an urban elementary school. Very few research studies have examined the extent secondary (classroom) prevention tier programs are implemented in urban, multicultural student populations in elementary schools (Jones et al., 2006; Utley, 2012; Utley, Kozleski, Smith, & Draper, 2002). One unique feature of this PBIS study is that teachers taught urban culturally and linguistically diverse children who were at-risk for being labeled as LD due to poverty. The present research also contributes to the literature on social competence and the effects of a social skill program designed to change teachers' praise versus reprimand statements and students' on/off task behaviors (Duda & Utley, 2006). The data from this study showed that urban teachers did not increase their praise statements, however, levels of students' on task behaviors increased following the implementation of social skill strategies. This finding does not support previous research findings suggesting that following a social skill intervention that the number of teacher praise statements does improve (Ferguson & Houghton, 1992; Utley, Greenwood, & Douglas, 2007).

Unlike previous research conducted by the first author and other researchers, the *Cool Tool*, did not reverse the negative cycle of teacher reprimands and negative reinforcement to culturally and linguistically diverse students. The professional development, training, and implementation of this social skill intervention did not improve teachers' ability to give appropriate, contingent, and behavioral feedback to urban, multicultural students. According to Bullis, Walker, and Sprague (2001),

the length and intensity of the social skill intervention have significant effects on producing short-and long-term consequences. These authors noted that social skill training programs are "conceptualized in terms of weeks, rather than months or years, an exposure that is simply too weak, in most cases, to impact at-risk or antisocial children in an enduring, positive way. For example, social skill training (SST) frequently is offered much like a class or a set of therapeutic meetings with a finite and relatively short-term duration (e.g., a few weeks to a few months); and instruction is constrained to the classroom setting and usually does not include training in the target environments (e.g., the general school setting, community, or employment." (p. 71).

A second plausible reason for the lack of significant effects of the social skill intervention program on increasing teacher praises with culturally and linguistically diverse at-risk students is that this intervention is an integral piece of a multiple, comprehensive intervention, family support, and academic program, and not a singular or isolated intervention. In this study, the length and duration of the social skill strategies were not offered over a substantial period of time and with sufficient intensity to alter teacher behaviors. In addition, social skill strategies must be embedded as a multi-component intervention within the academic program and viewed by teachers as a necessary and critical component of the teaching-learning program.

A third plausible reason for the insignificant difference or change between pre and post ratios in teacher praises is that the social skill intervention provided minimal support to prevent or ameliorate antisocial behaviors in culturally and linguistically diverse at-risk students. Gresham (1998) noted that the meta-analyses of the efficacy of social skill intervention studies, conducted in the 1990s, produced a magnitude of treatment effects averaging (0.35), range = 0.20-0.47, this range of effect sizes generally defines weak to moderate treatment outcomes in the professional literature (Bullis, Walker, & Sprague, 2001; Gresham, 1998). More recently, Losel and Beelmann (2003) conducted a meta-analysis of social skills training programs as a measure of preventing antisocial behaviors in children and youth. The results of this meta-analysis showed that (a) the best estimated mean effects were d = .38 (post-intervention) and .28 (follow-up); (b) effects were smaller on antisocial behavior than on related social and cognitive measures; (c) empirical studies with large samples produced lower effect sizes than those with smaller samples; and (d) programs targeting at-risk groups had better effects than universal programs.

A fourth plausible reason for the small change in teacher praise versus reprimand ratios is that of cultural discontinuities in a host of variables: the school culture, teachers' perceptions, and teacher's level of cultural competence in teaching social skills. Cartledge and Loe (1991) noted that "the culture of the school often aggravates rather than remedies the social skill problems of students from culturally diverse backgrounds…competitive, non-affirming, unattractive, and inadequate school environments do little to promote students' self-regard and undoubtedly contribute to disruptive, antisocial behaviors" (p. 34). These authors further stated that teachers' perceptions influence expectations and judgments about students' abilities, effort, and progress in school, thus leading to child-deficit assumptions. Lastly, these researchers expressed the need for educators to make a conscious effort to become cross-culturally competent in order to (a) understand and respect the cultural backgrounds of their students; (b) become skilled in their perceptions of culturally specific

behaviors of their students; and (c) distinguish culturally specific characteristics that reflect learning and problem behaviors from categories of exceptionality (e.g., learning disabilities, behavior disorders). Further research is needed in order to examine culturally responsive teaching in relation to the implementation of social skills strategies.

Of the few published studies using direct observation procedures, a positive outcome of the implementation of social skill strategies in this study was that students' levels of on-task behavior increased, thus, reducing their disruptive behavior (e.g., Ferguson & Houghton, 1992; Lane et al., 2003; Miller, Lane, & Wehby, 2005). Implications of this study are that the relatively direct observations and/or the analysis of students' classroom behaviors are needed when evaluating social skill strategies and intervention programs. In addition, results of this study also imply that direct teaching, modeling, supportive feedback, and opportunities to practice new social skills are beneficial to culturally and linguistically diverse at-risk students.

Limitations and Recommendations for Future Research

The first limitation in this study was that the whole school was the unit of analysis and we did not compare the effects of the PBIS intervention using a variety of measures in more than one treatment school and comparison schools. To measure whole school effects, it is recommended that the sample in future studies be randomly selected with a large number of relatively equally matched schools for the PBIS intervention and a control versus comparison group of schools. Second, significant effects of the PBIS intervention must be conducted over a multi-year period. Third, statistical analysis of the data did not examine individual students in the PBIS intervention. Fourth, because discipline referrals in the school were low, the study did not include this variable as an outcome measure. Additional collateral measures should include students' opinions using rating scales to measure school safety and fairness of the PBIS program, to mention a few.

Based upon this study, we propose the following recommendations: (1) a professional development program focused on attributes of effective urban teachers, one that is culturally responsive in nature; (2) the examination of critical teacher behaviors, assessment, and teaching practices in a culturally responsive framework in relation to student outcomes (i.e., academic, discipline and classroom management); (3) continued direct observation and classroom-based research focused on teacher-student interactions as measured by teacher praise vs. reprimands; (4) support for teachers in the training and implementation of PBIS strategies at the individual student level; and (5) reconceptualization of the social skills intervention training program and strategies in terms of length and intensity with delivery within key target settings; and embedded within the traditional academic program.

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