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## Abstract

Even with the use of effective universal classroom management practices, some students will need additional behavioral supports. However, to translate implementation of new strategies into the classroom, professional development programs need to be adaptive to the complexities teachers face in providing instruction and managing classroom behaviors among diverse learners. Teachers also need support to successfully implement universal practices as well as to develop and enact plans for supporting students with disruptive behavior. This article describes a universal classroom management program that embeds coaching within the model. The coach supported teachers both in implementing universal strategies and in developing and implementing behavior support plans for students with disruptive behavior. The study evaluates the effectiveness of the behavior support plans and the types of coaching activities used to support these plans. Findings indicated that during meetings with teachers, coaches spent time action planning and providing performance feedback to teachers on their implementation of the behavior support plans. In addition, teachers reduced their rate of reprimands with the targeted at-risk students. Students receiving behavioral supports demonstrated decreased rates of disruptive behavior, increased prosocial behavior, and a trend toward improved on-task behavior. In comparison, a matched sample of students with disruptive behaviors did not demonstrate improved outcomes. Implications for practice are discussed.

## Keywords

behavior support planning, classroom management, disruptive behavior, coaching

Disruptive behavior problems among students present a significant challenge for schools. In response, many schools have adopted three-tiered public health prevention models for social behavior, such as School-Wide Positive Behavior Interventions and Supports (SW-PBIS) to support prosocial student behaviors and prevent disruptive behaviors (see [www.pbis.org](http://www.pbis.org)). The recent shift toward the use of universal systems to support prosocial student behaviors and decrease disruptive behaviors among students has been effective. Research has shown the impact of SW-PBIS in reducing problem behavior and increasing academic performance (Bradshaw, Mitchell, & Leaf, 2010; Horner et al., 2009). These public health models guide prevention and intervention strategies for responding to problem behaviors by concentrating on the behavior and the environmental context in which the behavior occurs (Sugai, Sprague, Horner, & Walker, 2000). For instance, SW-PBIS provides a continuum of supports beginning with a foundation of universal strategies for all students. The expectation is that approximately 85% of

students will respond successfully to proactive universal strategies that provide systematic reinforcement and training of expected social behavior, whereas the other 15% of students will benefit from more targeted supports (see Stormont, Reinke, Herman, & Lemke, 2012).

SW-PBIS provides a foundation for supporting effective classroom management (see Farmer, Reinke, & Brooks, 2014), yet many teachers report they continue to struggle with managing student behavior in the classroom (Buell, Hallam, Gamel-McCormick, & Scheer, 1999; Pavri, 2004). In fact, teachers indicate that they consider classroom management to be the most challenging aspect of their job and one in which they receive the least amount of training (Barrett & Davis, 1993; Ingersoll, 2002; Reinke, Stormont,

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Herman, Puri, & Goel, 2011). Furthermore, even with effective universal classroom management strategies in place, some students (about 15%) are likely to engage in challenging behaviors. These students will need more selective or individualized behavioral supports for them to be academically and socially successful in school.

While research suggests that teachers can play a critical role in supporting the behavior of students, it also indicates that many teachers are unaware of evidence-based practices that might increase positive outcomes for students in their classrooms with disruptive behavior problems (Stormont, Reinke, & Herman, 2011). This lack of knowledge may be associated with a lack of sufficient experience, training, or support (Reinke et al., 2011). Furthermore, students displaying disruptive classroom behaviors are more likely than their peers to develop coercive relationships with their teachers (Ladd & Burgess, 1999), and such relationships, when established early in students' school careers, put them at further risk for emotional and behavioral disorders and academic problems (Hamre & Pianta, 2001). Thus, there is a need for interventions that focus on building teachers' knowledge and skills to promote the use of effective strategies that are developmentally appropriate and supportive of children's emotional and behavioral growth.

Despite growing numbers of efficacious school-based social behavioral prevention programs, many of these programs are never implemented in schools. This science to practice gap has led to a lack of progress toward achieving socially important outcomes (Fixsen, Blasé, Duda, Naoom, & Van Dyke, 2010). As such, attention has shifted to understanding the processes and infrastructure needed to support implementation and sustained use of evidence-based practices (Cappella, Reinke, & Hoagwood, 2011). Many social and behavioral interventions involve training, content, and ongoing consultation. The complexities teachers face in providing instruction and effective classroom management with diverse learners requires adaptive professional models for engaging teacher participants. The prescriptive nature of some training models, which do not allow for flexible content, may impede teacher engagement, leading to lower levels of implementation following training. As such, evidence-based teacher classroom management training programs are needed that are adaptive to the unique challenges faced by teachers. Furthermore, these training programs need to be attentive to the varying backgrounds and experiences of teachers, and provide teachers with additional consultation and support according to individual classroom needs.

The Incredible Years Teacher Classroom Management (IY TCM) intervention is an example of an evidence-based program that embeds fidelity and adaptation within its design (Webster-Stratton, Reinke, Herman, & Newcomer, 2011). The IY TCM incorporates teacher experiences and the cultural contexts of their classroom into the workshop content. Furthermore, although the IY TCM is a universal

classroom management intervention, the program recognizes that some students will need additional supports, and uses behavior support planning for these students early in the process. In this article, we describe the use of coaching within the IY TCM model to support teacher development and implementation of behavior support plans for students identified as having elevated disruptive behavior.

## The IY TCM Intervention

The IY TCM is a universal intervention delivered to teachers to increase their use of effective classroom management strategies. The program includes research-based classroom management strategies that have been associated with increases in children's social-emotional development, positive teacher-student interactions as well as decreases in student problem behavior (Snyder et al., 2011; Webster-Stratton, Reid, & Hammond, 2004). Teachers are trained in small groups across six full days by two trained IY TCM workshop facilitators. Each workshop builds off the prior workshop content. Between workshop trainings, each teacher meets an IY TCM coach to support implementation of content from workshop sessions to the classroom. The IY TCM content includes strategies for increasing proactive teaching, praise and encouragement, incentives, problem solving, and other strategies for increasing social competence and decreasing problem behavior (Webster-Stratton, Reid, & Hammond, 2001). The intervention uses social learning theory (Bandura, 1977) via video modeling to increase teacher learning of new skills. During each workshop, teachers view video clips of effective strategies, role-play the use of strategies, and receive feedback from the IY TCM leaders and teachers in the group. IY TCM is principle driven and therefore flexible in adapting to the skill levels and specific classroom experiences of each teacher (Webster-Stratton et al., 2011). In addition to universal classroom management strategies, teachers learn to develop behavior support plans for students in their classrooms who need additional supports for social behavior.

The workshop sessions provide teachers with the important initial stages of learning new skills. However, the use of ongoing coaching to support teachers in using these new skills has been described as optimal (see Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). Coaching teachers in their use of social behavioral interventions is associated with teachers' increased use of specific practices and subsequent improvements in children's behavior (Stormont, Reinke, Newcomer, Darney, & Lewis, in press). Therefore, the IY TCM embeds coaching within the training model. As teachers learn specific skills in the group-based training, they are then followed individually by a coach who conducts observations, provides performance feedback, and assists with problem solving, goal setting, and implementation of strategies from the workshops (Reinke, Stormont, Webster-Stratton, Newcomer, & Herman, 2012).

The IY TCM coach also helps teachers to construct and implement behavior support plans for students with challenging behaviors. Such plans may include interventions the teacher and the coach determine may be effective with students, given their individual characteristics. Plans consist of four key elements: (a) environmental, instructional, and reinforcement strategies to build positive behaviors; (b) strategies to support the cognitive and social-emotional development of the student; (c) strategies to discourage and reduce problem behaviors; and (d) strategies to engage and communicate with parents. The use of coaching and behavior support planning for students identified as needing additional supports by teachers is an integral component of the IY TCM intervention.

There is evidence that professional development trainings that do not use coaching are less effective (Fixsen et al., 2005). Furthermore, coaching has been associated with increased teacher implementation of strategies, resulting in improved student behaviors (Reinke, Lewis-Palmer, & Merrell, 2008). However, research focusing on the interchange between coaches and teachers in their implementation of classroom strategies including deployment of more intensive supports for students at-risk for with emotional and behavioral disorders is needed. For instance, the specifics regarding what strategies coaches use with teachers and how coaches are affected by the characteristics of students and teachers is an emerging area of research (Reinke, Herman, Stormont, Newcomer, & David, 2013). A recent study found that a coach spent more time with teachers who needed more support due to their lower rates of praise and higher rates of both reprimands and student disruptions in the classroom (Reinke, Herman, & Stormont, 2013). However, very little information is available about other coaching variables in general including the specific practices they use and why, as well as how they coach teachers to implement interventions for specific students who do not respond to universal strategies (Stormont et al., in press).

The purpose of this study is to explore how the IY TCM coach spent time with teachers who identified students with challenging behavior. In addition, the study evaluates outcomes associated with students at-risk of disruptive behavior problems who received behavior support plans versus similar at-risk students who did not receive a behavior support plan in classrooms of teachers trained in IY TCM. Specific research questions include the following:

**Research Question 1:** How did the coach spend time with teachers who identified students falling into the top 15% of disruptive behaviors for behavior support planning?

**Research Question 2:** Did teachers who received coaching increase their use of praise and decrease their rates of reprimands with students identified as having disruptive behavior problems?

**Research Question 3:** Did students with behavior support plans for disruptive behaviors have more positive behavioral outcomes than comparison students from intervention classrooms with similar levels of disruptive behavior problems?

We hypothesized that the coach would spend some portion of the coaching sessions specifically on supporting teacher use of behavior support plans. Given the tendency for teachers and students with disruptive behavior problems to have negative interactions (Ladd & Burgess, 1999; Shores et al., 1993), we expected that teachers would exhibit lower rates of praise and higher rates of reprimands toward at-risk students prior to implementing the behavior support plan. Following implementing the behavior support plans, we expected that teachers would use more praise and fewer reprimands with at-risk students who received a behavior support plan. In comparison with at-risk students without behavior support plans, we expect that the at-risk target students with behavior support plans would demonstrate improved outcomes, including decreased disruptive and aggressive behavior, improved prosocial behavior and emotional regulation, and increased on-task behaviors.

## Method

Sixty-eight teachers and their students ( $n = 1,148$ ) were recruited to participate in a large-scale group randomized trial evaluating the efficacy of IY TCM. Participants were from six urban schools serving primarily African American (76%) students. Of the total teacher sample, 34 teachers were provided training in the IY TCM intervention. Only teachers receiving the IY TCM training received coaching, therefore, all data on coaching are from these teachers. The following describes the demographic information for these teachers. Most teachers were female (91%) and White (76%). Twenty-four percent of teachers were African American. A total of 8 teachers taught kindergarten, 10 taught first grade, 7 taught second grade, and 9 taught third grade. Participants' years of teaching experience ranged from 1 to 29 years, with an average of 12.28 years.

Teachers attended six workshop sessions of IY TCM training followed by ongoing on-site coaching across two cohorts. Each cohort consisted of 17 teachers. Cohort 1 was trained a year prior to Cohort 2. All study procedures were reviewed and approved by the university and participating school district's institutional review board (IRB) prior to implementation. In this study, 30 of the 34 teachers identified one or more students (range = 1–4) who they felt needed additional supports in the classroom. Students identified to receive behavior support planning are referred to as target students for the purpose of this study.

Two certified IY TCM leaders provided the IY TCM workshop trainings. One leader was a White male with a

doctoral degree in Counseling Psychology. The second leader was a White female with a doctoral degree in Special Education. The second leader also provided weekly on-site coaching to each teacher receiving the intervention. Beginning in the first workshop session and during individual coaching sessions, teachers were encouraged to identify students who they believed would benefit from additional behavioral supports. Teachers then worked with the IY TCM coach to develop a behavior support plan for each identified student. Behavior support plans may have been as straightforward as using clear commands, precorrecting transitions, and increasing attention and praise for desired behavior. However, most were more complex and included the use of multiple strategies. For example, the behavior support plan for a student with disruptive behavior and occasional aggression included a change in seating, precorrections for transitions, the use of clear commands, and increased specific praise combined with self-monitoring and an incentive system. To discourage problem behaviors, the plan included planned ignoring and the provision of choices. In addition, the student was taught a calm-down strategy to use when agitated, and the teacher implemented a time-out procedure when the student became aggressive.

### Target Student Sample

Keeping in line with a public health tiered approach to service delivery in the school setting (Shinn, Walker, & Stoner, 2002), we used the Teacher Observation of Classroom Adaptation–Checklist (TOCA-C) disruptive behavior subscale (described in detail below) to determine the cut-score for students reported to be in the top 15% (2.44 and higher) of the full student sample ( $n = 1,148$ ) as our criteria for elevated disruptive behaviors.

A total of 25 target students with disruptive behavior problems in top 15% of the full sample received behavior support planning. Two of these students did not have post-data due to leaving the school and therefore were not included in the study. Thus, the final sample included 23 target students.

### Matched Comparison Student Sample

In efforts to identify a comparison group, we used a multi-dimensional matching scheme using the “Matchby” package in the programming language *R*. Matching was based on the Mahalanobis distance metric and was without replacement. One-on-one matching was conducted within each stratum.

The following steps were conducted to identify a group of students with elevated disruptive behaviors from the classrooms of teachers who received the intervention but

**Table 1.** Demographic Characteristics of At-Risk Student Target and Comparison Sample.

Demographic	Target students ( $n = 23$ )	Comparison students ( $n = 23$ )
Male	16 (70%)	16 (65%)
African American	22 (96%)	20 (87%)
White	1 (04%)	3 (13%)
FRL	21 (91%)	15 (65%)
Special education status	1 (04%)	3 (13%)
Kindergarten	7 (30%)	7 (30%)
First grade	6 (26%)	6 (26%)
Second grade	5 (22%)	5 (22%)
Third grade	5 (22%)	5 (22%)
Mean baseline disruptive behavior	3.51	3.19

Note. Independent sample *t* test demonstrated no significant difference between target and comparison sample for baseline disruptive behavior. FRL = Free or Reduced Lunch.

for whom a behavior support plan was not provided. First, 488 student cases in the intervention group served as the initial comparison pool for the 23 target students. Because the treated sample was much smaller than the comparison pool, exact matching on demographic variables was likely. The demographic variables considered for the matching purpose included grade level and sex. Within each stratum, we matched cases that were comparable on TOCA-C disruptive behavior subscale score measured before any intervention program with the students or their teachers. Consequently, those potential comparison cases with missing values on the TOCA-C disruptive behavior subscale were not useful for matching and were therefore excluded. Within each stratum, there were at least as many comparison cases as the number of target students. The final matched sample had 46 cases: 23 target students and 23 matched cases.

The final student sample demographics for the target ( $n = 23$ ) and matched control sample ( $n = 23$ ) are provided in Table 1.

### Measures

*Use of coaching strategies.* The IY TCM coach met with each teacher on a weekly basis or as scheduling allowed. During these coaching session visits the coach tracked the use of specific strategies using a handheld computer device using Multi-Option Observation System for Experimental Studies (MOOSSES) software (Tapp, 2004) and coding system that allowed for tracking the duration of each strategy in real time. The strategies coded included modeling, observing, scheduling, role-playing, action planning, providing feedback, goal setting, or other activity category.

The coach was able to distinguish modeling, role-playing, action planning, and performance feedback as at the classroom level or specific to target student behavior support planning. The mean duration of coaching strategies are reported.

**Teacher reported student behavior.** The TOCA-C (Koth, Bradshaw, & Leaf, 2009) is a 54-item measure of student behavior. It was completed by the classroom teachers for each student in the month of October in the academic year. Three subscales of the TOCA-C were included in the present study: Disruptive Behaviors, Emotional Regulation, and Prosocial Behavior. The item responses ranged from 1 (never) to 6 (almost always). Previous research of the TOCA-C has found internal consistency estimates ranging from .86 to .96 (Koth et al., 2009). For the current study, the internal consistency (computed using Cronbach's  $\alpha$ ) for each subscale ranged from .82 to .96.

**Direct observation of student and teacher behavior.** Independent observers conducted direct observations of teacher implementation using MOOSES (Tapp, 2004) interface for handheld computers to gather real time data using the *Student Teacher-Classroom Interaction Observation* code (ST-CIO; Reinke & Newcomer, 2010). Each student in the study was observed separately. The frequency of student aggressive and disruptive behavior and teacher use of general praise statements, specific praise statements, and reprimands, were gathered simultaneously during each observation. Duration of student off-task behavior was also recorded. Observations were conducted in classrooms during instructional times (reading or math) for 5-min pre- and postintervention. All frequency behaviors are reported as rate and off-task behavior is reported as the percentage of the observation the student was off task. Reliability checks were conducted for 30% of the observations. The mean percentage agreement across raters on the ST-CIO was 89.5%. MOOSES uses second-by-second comparison of raters to determine reliability and an overall reliability of 80% is considered acceptable, thus, 89.5% is considered reliable (Tapp, 2004).

### Analytic Plan

Descriptive information was compiled for the coach's use of time with teachers who identified students with elevated levels of disruptive behavior for behavior support planning. Next, given the small sample size of students who met criteria for study inclusion, paired sample  $t$  tests were conducted to evaluate the mean change pre-post on behavioral outcomes for the target students and the matched comparison student sample. In addition, changes in teacher use of praise and reprimands with students were examined using paired sample  $t$  tests.

**Table 2.** Mean Minutes, Standard Deviation, and Range for Coaching Activities.

Coach activities	M (SD)	Range
Action planning behavior plan	33.01 (47/77)	2–189
Action planning classroom	18.87 (21.42)	0–80
Performance feedback behavior plan	35.53 (29.77)	0–84
Performance feedback classroom	18.23 (17.44)	0–53
Observing	171.03 (38.23)	83–221
Reviewing	33.57 (16.24)	14–70
Goal setting	10.48 (11.15)	0–40
Modeling	2.07 (4.33)	0–15
Total duration coaching	374.97 (105.63)	240–596
Total No. coaching sessions	7.81 (2.01)	5–12

Note. Range of coaching activities rounded to whole number.

### Results

Table 2 provides descriptive statistics on coaching session activities with teachers of at-risk students on behavior support plans. In general, the coach spent a great deal of time conducting direct observations in teachers' classrooms. Then, during meetings with teachers, the IY TCM coach spent time action planning and providing performance feedback on teacher implementation of behavior support plans as well as on use of universal classroom practices. According to the data, the IY TCM coach spent more time action planning and providing performance feedback about the behavior support plan with these teachers than on coaching universal classroom practices.

Results of paired sample  $t$  tests for target students indicated significant improvement pre-post intervention for teacher-reported disruptive behavior,  $t(22) = 3.70, p < .01$  and observed disruptive behaviors,  $t(22) = 2.68, p < .05$ . In addition, target students demonstrated significant improvement in teacher-reported prosocial behavior,  $t(22) = -2.65, p < .05$ . With regard to observed off-task behavior, although not statistically significant, target students demonstrated a trend toward significant improvement,  $t(22) = 1.92, p = .07$ . Furthermore, teachers of target students significantly decreased their use of observed reprimands with the students,  $t(22) = 3.54, p < .01$ . The only significant pre-post change for students in the comparison group was in the rate of teacher use of specific praise with these students,  $t(22) = -2.42, p < .05$ . No other pre-post changes were found for student or teacher outcomes for the comparison group (see Table 3).

### Discussion

The purposes of this study were twofold. First, we wanted to investigate how the IY TCM coach supported teachers in their implementation of behavior plans with students

**Table 3.** Results of Paired Sample *t* Tests and Means (*SD*) for Pre–Post Behavior Outcomes for Target Students With Behavior Support Plans and Comparison Student Samples.

Variable	Target students ( <i>n</i> = 23)				Comparison students ( <i>n</i> = 23)			
	Pretest <i>M</i>	Posttest <i>M</i>	<i>t</i>	<i>p</i>	Pretest <i>M</i>	Posttest <i>M</i>	<i>t</i>	<i>p</i>
Teacher report								
Disruptive behavior	3.51 (0.78)	2.86 (0.87)	3.70**	.001	3.19 (0.62)	3.12 (0.93)	0.46	.65
Poor emotion regulation	3.82 (1.07)	3.61 (1.13)	0.98	.34	3.85 (0.78)	3.49 (0.99)	1.68	.11
Prosocial behavior	3.18 (0.52)	3.79 (1.10)	–2.65*	.02	3.48 (0.54)	3.62 (1.11)	–0.75	.46
Direct observation								
Disruptive behavior	0.24 (0.28)	0.10 (0.17)	2.68*	.01	0.10 (0.18)	0.11 (0.18)	–0.05	.96
Aggressive behavior	0.03 (0.13)	0.03 (0.08)	0.13	.90	0.01 (0.42)	0.01 (0.42)	0.00	1.00
% of off task	21.57 (32.59)	8.78 (15.55)	1.92	.07	18.78 (25.81)	8.75 (17.60)	1.36	.19
Teacher behavior to student								
Reprimands	0.23 (0.23)	0.08 (0.16)	3.54**	.002	0.06 (0.15)	0.05 (0.10)	0.31	.76
General praise	0.07 (0.11)	0.04 (0.08)	0.87	.40	0.00 (0.00)	0.05 (0.10)	–1.45	.16
Specific praise	0.00 (0.00)	0.02 (0.07)	–1.79	.10	0.00 (0.00)	0.03 (0.06)	–2.42*	.02

\**p* < .05. \*\**p* < .01.

identified by teachers as needing more support and who also displayed elevated rates of disruptive behaviors. Second, the effectiveness of the support plans were examined by comparing pre–post outcomes for these target students who received behavior supports developed within the IY TCM intervention to students with similar characteristics in IY TCM classrooms that did not receive behavior support planning.

First, data indicated that among teachers receiving IY TCM coaching for students with behavior support plans, the coach spent more time action planning and providing performance feedback on behavior support planning than on the use of universal classroom practices. However, the meetings were not void of discussion of using classroom level practices. Given that some teachers identified more than one student in need of additional supports, it would be important for the coach to ensure that teachers were implementing effective universal supports. The students in this study were rated as being in the top 15% of students with disruptive behavior; thus, it makes sense that a larger portion of coaching time would be used on the use of strategies with these students. This information is an important contribution to the literature as little information is available regarding how coaches spend their time with teachers (Stormont et al., in press).

In terms of teacher change in behaviors toward at-risk students, we found that, through the use of the IY TCM program, coach support, and the implementation of behavior support plans, teachers significantly reduced their rate of reprimands provided to target students. Whereas, data for teachers of the matched students in classrooms who did not receive the behavior support planning did not demonstrate a change in use of reprimands. Importantly, the match comparison students received fewer reprimands from teachers

prior to the intervention. Furthermore, these students were not identified as needing behavior support plans despite having similar elevated levels of disruptive behavior. Perhaps the teachers were more likely to identify those students for behavior support planning that they have more negative or punitive interactions. Notably, the amount of praise teachers provided toward the students in the study was very low overall. However, teachers did demonstrate an increase in their use of praise, both general and specific, toward both groups of students. This is promising given that the IY TCM intervention trains teachers in proactive classroom management strategies, such as using behavior-specific praise. These findings are important given that negative interactions between teachers and students are more common with students demonstrating challenging behaviors (Shores et al., 1993). Given the direct links between teacher practices and student disruptions (Leflot, van Lier, Onghena, & Colpin, 2010), finding ways to increase teacher use of proactive practices, such as praise, and reducing reactive practices, such as providing reprimands, is likely to improve student outcomes, particularly for those students struggling behaviorally.

Findings on behavioral outcomes for target students were positive. The target students demonstrated improvements in disruptive behavior, both by teacher report and direct observation. Although we might expect teachers who spend time discussing and implementing behavior support plans for a particular student would be inclined to notice and report change, the direct observations were conducted by independent researchers without knowledge of the intervention, giving further credence to these findings. In addition, target students had significant increases in prosocial behavior and exhibited a trend toward increased on-task behaviors. In contrast, the comparison group of students

demonstrated no changes in disruptive or prosocial behaviors. Given that teachers were reporting that the comparison students had similar levels of disruptive behavior as those they identified for behavior support plans, use of screening or other methods to identify students who would benefit from some additional supports above and beyond the universal strategies used by the IY TCM may be beneficial.

### *Implications*

The practical implications of these results are that we need to provide supports to teachers to increase universal practices for all students and targeted supports for at-risk students simultaneously. Often, teachers are offered training or support in one or the other, rather than learning how to apply universal and targeted strategies in tandem. The current study demonstrated that teachers, with support, can make positive behavior improvements within the general education setting. The teachers in our study were effective in their use of classroom behavior management and the implementation of behavior support plans, as evidenced by student behavior change. Previous research has demonstrated that when teachers are effective behavior managers, they feel more efficacious, experience less burnout, and have students with fewer disruptive behaviors (Reinke, Herman, & Stormont, 2013). However, most teachers do not feel they are effective in working with challenging behavior and request more assistance in this area (Reinke et al., 2011). The vast majority of teachers also report they are not confident that the social behavioral interventions they use have the desired impact on students (Stormont et al., 2011). It is clear that teachers need ongoing support and feedback on their performance to sustain their implementation of new or infrequently used skills (Noell et al., 2005).

One of the goals of coaching is to provide support to teachers during the acquisition of new skills, and in the environment in which the teachers will be implementing those skills. The coaching supports provided to teachers are similar to the behavior supports provided to students, in that both are problem-specific and individualized to need. The intensity of coaching (i.e., number of coaching sessions) is matched to teacher need based on the level of problem behaviors in the classroom (Reinke et al., 2013). Behavior support plans are implemented with the hope that students will generalize the acquired skills to new settings. Likewise, it is the hope of coaching that teachers will generalize classroom management and behavior support skills to future students and classrooms. However, there is a need for future research to assess the long-term implications of coaching to determine if a generalization of skills has occurred, and if “booster sessions” are necessary.

The current study provides initial support for the positive effect that behavior support planning within the context of a universal intervention and coaching can have on student

behavior. However, although the comparison sample was of students with similar levels of disruptive behavior problems who did not receive behavior support plans in classroom in which teachers were trained in the IY TCM intervention, we cannot fully demonstrate that coaching in behavior support planning was the mechanism of change. Future research should manipulate whether or not coaching is provided to teachers receiving training in universal classroom management to determine if coaching has an additive effect. Specifically randomizing whether teacher receive coaching in behavior support planning across classrooms would allow for a more rigorous test of the value of coaching teachers to support students with disruptive behavior problems in the context of a universal intervention. Given our knowledge of effective teacher training practices it is likely that coaching would be associated with better teacher implementation and therefore positive student outcomes in comparison with teachers receiving no coaching (Fixsen et al., 2005).

In addition, the results do not allow us to determine how much coaching is necessary to see significant outcomes. Schools may be interested in a more concise model of training and coaching. Equally important, more extensive coaching may be associated with even greater gains in positive behavior. Future research should examine coaching with a dosage model to investigate the relationship between the amount of coaching and subsequent positive behavior change. There may be a level at which improvements level off and this could be used as an index for determining dosage. It is also important to continue to investigate whether specific teacher and child characteristics are associated with the dosage of coaching and later teacher and student outcomes (Reinke et al., 2013).

### *Limitations*

There are several limitations to the current study. First, the intervention and coaching supports provided were within the context of a larger efficacy trial. Furthermore, the coach for the study was a doctoral level special educator with extensive experience in working with students with severe behavior challenges. The findings from this study may not generalize to other settings without these resources. Although this is likely considered ideal to most school districts, it may not be practical. Future research with coaches from different backgrounds and training, including teachers, counselors, and school psychologists, should be conducted. Understanding coach characteristics and which strategies are most effective for working with teachers could help to determine ways to provide feasible and effective supports to teachers.

In addition, the at-risk students in this study were not randomly assigned to receive behavior support plans. The final samples were similar but may not have been perfectly matched



on all variables influencing the results. Moreover, the sample was relatively small which limited the power to conduct between group analyses. Thus, future research is needed that uses random assignment with larger groups of students with disruptive behavior problems to receive the behavior support plans versus a control group. Regardless, the findings of this study show some promise for the inclusion of behavior support planning with coaching supports within the context of the IY TCM. The teachers included in this study were able to positively affect the behavior of their most at-risk students within their general education classrooms.

## Conclusion

Methods for training and supporting teachers in effective classroom practices are needed. It is important to consider the complex nature of classrooms and the challenges faced by teachers on a daily basis. The IY TCM intervention incorporates a flexible approach to training and supporting teachers in universal practices, while simultaneously taking into consideration that some students will still need more targeted supports. The coaching supports embedded within the IY TCM intervention are innovative and likely lead to higher fidelity to the universal strategies and targeted behavioral supports. Continued work on reducing the science to practice gap is necessary if we want to make significant impacts on socially important outcomes. Understanding the processes that lead to teacher implementation of new practices and how those practices effect student outcomes is one step toward reducing this gap with the ultimate goal of building and installing programs that allow more children to succeed in school.

## Authors' Note

The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education.

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