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Supporting Universal Prevention Programs: A Two-Phased Coaching Model

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Abstract Schools are adopting evidence-based programs designed to enhance students' emotional and behavioral competencies at increasing rates (Hemmeter et al. in Early Child Res Q 26:96–109, 2011). At the same time, teachers express the need for increased support surrounding implementation of these evidence-based programs (Carter and Van Norman in Early Child Educ 38:279–288, 2010). Ongoing professional development in the form of coaching may enhance teacher skills and implementation (Noell et al. in School Psychol Rev 34:87–106, 2005; Stormont et al. 2012). There exists a need for a coaching model that can be applied to a variety of teacher skill levels and one that guides coach decision-making about how best to support teachers. This article provides a detailed account of a two-phased coaching model with empirical support developed and tested with coaches and teachers in urban schools (Becker et al. 2013). In the initial *universal coaching phase*, all teachers receive the same coaching elements regardless of their skill level. Then, in the *tailored coaching phase*, coaching varies according to the strengths and needs of each teacher. Specifically, more intensive coaching strategies are used only with teachers who need additional coaching supports, whereas other teachers receive just enough support to consolidate and maintain their strong implementation. Examples of how coaches used the two-phased coaching model when working with teachers who were implementing two universal prevention programs (i.e., the PATHS® curriculum and PAX Good Behavior Game [PAX GBG]) provide illustrations of the application of this model. The potential reach of this coaching model extends to other school-based programs as well as other settings in which coaches partner with interventionists to implement evidence-based programs.

Keywords Coaching · Prevention · Schools · Teachers · PATHS · Good Behavior Game

Introduction

Children's behavior problems and social emotional deficits in elementary school are significant risk factors for a host of academic and behavioral challenges across the life course (Kellam et al. 2008). Classroom-based prevention programs (e.g., behavior management programs, social emotional curricula) have been shown to reduce problems and strengthen resilience in the short- and long-term (Hahn et al. 2007; Park-Higgerson et al. 2008; Wilson and Lipsey 2007). With increasing frequency, schools are adopting evidence-based prevention programs (Hemmeter et al. 2011). However, teachers express the need for increased support when using these programs (Carter and Van Norman 2010). Student outcomes have been linked to the quality of program implementation (Derzon et al. 2005; Ialongo et al. 1999); therefore, supporting teachers in effectively delivering these programs is of great importance.

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Typical teacher trainings involve one-time workshops delivered as part of professional development. However, a growing body of research in education and other fields suggests that traditional workshop training may increase knowledge about a particular area but rarely translates into skilled implementation in the natural setting (Fixsen et al. 2005). In their seminal meta-analysis, Joyce and Showers (2002) reported that training comprised of didactics, demonstrations, practice, and feedback does little to impact teacher practice *unless it is coupled with classroom coaching*, a finding that has growing empirical support (Cappella et al. 2012; Forman et al. 2009).

Coaching involves providing ongoing guidance to support skill development (Noell et al. 2005). In the literature, the term "coaching" appears along with related concepts such as "consultation" and "mentoring." There is no consensus regarding the distinction among these terms, nor is there a consensus about the exact nature and intensity of the activities involved in coaching. The goal of coaching teachers is to improve their use of a specific practice, such as the implementation of a program or general teaching skills. To meet this goal, coaches might gather data on teacher and classroom strengths and needs. One method of data collection involves classroom observations to assess student and teacher interactions and teacher implementation of the program. Another method of data collection involves the review of program dosage documentation. The data collected through needs assessments guide the coaching process and help the coach monitor progress. Modeling, or demonstrating core program activities, is another commonly used coaching technique that provides an opportunity for teachers to see the program in action in their classrooms. Coaches might also provide instruction to teachers on the components of an intervention, general technical assistance that is informational in nature, and constructive feedback. Collaborative problem solving around a specific implementation barrier (e.g., finding time in the day to implement) or student challenge (e.g., a particular youth does not appear to be responding to the program) is another common coaching activity. Conducting periodic, brief check-ins is another coaching technique that provides the opportunity for coaches to prompt and encourage teacher implementation of the program (for reviews of coaching practices, see AIR 2004; Denton and Hasbrouck 2009; Domitrovich et al. 2008). Research has linked these and other practices with better student outcomes (Curby et al. 2009; Pianta et al. 2008a).

The purpose of this paper is to describe a coaching model designed with these strategies in mind. The model was developed to build upon the strengths of existing models in terms of its inclusion of key practices that have been tested in the literature. It is flexible by design and can be used with teachers at any level of implementation. Additionally, its framework offers a series of decision points that guide coaches to select coaching strategies that have the best chance for success based on local evidence (i.e., teacher and student data) and working hypotheses.

The focus of this paper is important because while some exemplary frameworks exist, there is a dearth of models articulating the practical components related to coaching activities intended to provide teachers with ongoing support in their use of prevention programs in their classrooms (Stormont et al. 2013). Perhaps the most widely cited consultation model is the one proposed by Han and Weiss (2005). This model is unique due to its depth of conceptualization regarding the process by which a number of variables operating at the level of the teacher, classroom, and school affect implementation. Han and Weiss conceptualize the implementation process as a self-sustaining feedback loop, with teacher success experiences and consultant feedback playing an integral role in priming cognitions (e.g., self-efficacy beliefs, motivation, attributions of change) that lead to further skill development, program implementation and sustainability, and ultimately, student behavioral change.

Noteworthy for its depth of conceptualization based on individual data and well-specified procedures is the Classroom Checkup (CCU) (Reinke et al. 2011). The CCU is grounded in motivational interviewing and involves goal setting, extensive data collection, observation, and personalized feedback. Another exemplary coaching model is MyTeachingPartner (MTP; Pianta et al. 2008b). MTP involves consultant observation of videotaped student–teacher interactions and guided reflection regarding teacher–student interactions in empirically supported domains, which is reviewed and reflected upon by teachers. Finally, BRIDGE (Cappella et al. 2012) and the coaching model for the teaching pyramid (Hemmeter et al. 2011) both utilize a cyclical structure of live observation, consultation, feedback, and goal setting. BRIDGE also involves video review and coach modeling (Cappella et al. 2012). One merit of these exemplary consultation and coaching models is that as a group, they coalesce around key evidence-based activities, including data collection, goal setting, and performance feedback (Fixsen et al. 2005; Herschell et al. 2010), despite having different targets (e.g., basic classroom practices, behavior management, social emotional skill teaching).

Despite the work of the research groups described above, there are still significant gaps in the coaching literature. For example, there is little explicit guidance regarding the frequency and sequencing of coaching activities such as modeling, observation, and performance feedback. Moreover, it is unclear if and where coaching activities such as engaging administrators, rapport building, modeling, and reinforcement fit into each of these

existing models. It is important to specify the role of these coaching activities, particularly as evidence accumulates regarding the association between teacher implementation and variables such as coach–teacher alliance (e.g., Wehby et al. 2012). For example, perhaps rapport building activities promote a positive coach–teacher alliance that is conducive for other integral coaching activities such as observation and feedback (Kratochwill 2007). Additionally, although the models of MTP, BRIDGE, Han and Weiss (2005), and Hemmeter et al. (2011) are useful with many teachers, it is not clear from published manuscripts exactly how these models are tailored to address the diverse needs of different teachers, particularly those who are identified as needing significant support. The CCU is explicitly tailored for teachers and its practical application is for those teachers who exhibit low implementation of a program. The theoretical underpinnings of the CCU in motivational interviewing suggest that ambivalence is hypothesized to influence low implementation and that goal setting and feedback will reduce ambivalence and facilitate progress. However, barriers aside from ambivalence often interfere with implementation, and the strategies for addressing other barriers within the context of the CCU are not clearly specified. Finally, within the context of these models, there is no explicit framework to guide coach decision-making about what strategies to use with which teachers and for what purpose.

Although the traditional stage model of scientific development holds that interventions should be developed and tested through rigorous efficacy studies before deployment into the field, the needs of the coaching workforce have quickly outpaced the research. One explanation for this research–practice gap is the difficulty of conducting rigorously controlled studies in which every teacher receives the same coaching. In reality, the same coaching for every teacher may not be desirable, given that teachers and classrooms vary in their strengths and needs.

In an effort to address the ever-widening research-to-practice gap (McHugh and Barlow 2010), the development and testing of the coaching model described in this paper was guided by a practice-based research approach (Kratochwill et al. 2012). This approach involved a dynamic process of collaboration with actual coaches, teachers, administrators, and students in urban elementary school settings, as well as experts in the field of prevention science. This iterative process involved reviews of the literatures related to behavior change, teacher consultation, and training; standardization of procedures; monitoring of integrity to the coaching model; data collection; and use of data to inform modifications to our model. Additionally, each year, detailed evaluations, focus groups, and individual interviews were conducted with school administrators, teachers, and staff to obtain feedback and suggestions on the coaching model and process.

In the sections that follow, background information is provided to describe the context and development of the coaching model. Then, a conceptual and practical framework for coaching classroom-based preventive interventions is provided, along with coaching examples from two universal classroom-based interventions. Finally, the coaching model is discussed within the larger context of prevention science within and beyond school settings.

Background

The coaching model described in this paper evolved within the context of 4 years of pilot studies and a 3-year randomized field trial involving a total of 45 public elementary schools, nearly 400 teachers, and almost 9,000 students. These elementary schools are located in a major urban school district that operates under significant resource constraints. More than 70 % of students receive free or reduced lunch, and in 2011, nearly 90 % of schools failed to meet adequate yearly progress (AYP) goals.

Seven individuals employed through a major urban university served as coaches. Table 1 presents the education and experience of each coach. Coaches were primarily female ($n = 6$; 85.7 %) and Caucasian ($n = 5$; 71.4 %). Coaches were former educators ($n = 5$; 71.4 %) or school-based mental health clinicians ($n = 2$; 28.6 %). Two of the coaches had been teachers who received training during the pilot trial and then were recruited to serve as coaches based on their stellar implementation of PATHS and the PAX GBG. Coaches were employed for a period of 2–3 years each.

A recently published paper (Becker et al. 2013) presented empirical analyses involving longitudinal data on coaching and teacher implementation quality of the PAX Good Behavior Game (PAX GBG; PATHS implementation was not examined). Findings revealed that coaching varied as prescribed by the different phases of the coaching model. For example, as will be described, modeling is a key coaching element during the *universal* coaching phase, and it accounted for 24.9 % of coaching time during the universal coaching phase, but dropped to 3.5 % of coaching time during the tailored phase. Additionally, coaches strategically varied their coaching practices based on teacher implementation quality. On the one hand, coaches provided less support to teachers with high implementation quality. On the other hand, they provided additional support to teachers with low implementation quality, and coaching was associated with improved implementation quality for these teachers (Becker et al. 2013).

Table 1 Coach demographic characteristics, education, and experience

Coach	Degree[a]	Field[b]	Years Exper.[c]	Prior experience coaching teachers	Prior experience w/interventions
1	Ph.D.	Edu	10 (Elem), 5 (Admin)	Yes	No
2	M.S.	Edu	9 (Elem)	Yes	Yes
3	M.S.	Edu	5 (Middle)	No	No
4	M.A.	Edu	5 (Elem)	No	No
5	B.S. (plus graduate classes)	Edu	8 (Elem)	No	Yes
6	M.A.	MH	5	Yes	Yes
7	B.S. (plus graduate classes)	MH	2	No	No

[a] Degree at the time of employment as a coach. *Ph.D.* doctorate; *M.S.* masters of science; *M.A.* masters of arts; *B.S.* bachelors of science

[b] *Edu* education; *MH* mental health

[c] Years experience in chosen field prior to employment as a coach. *Elem* elementary school; *Middle* middle school; *Admin* administration

Intervention Descriptions

Coaches applied the coaching model described in this paper to support teacher implementation of the Promoting Alternative Thinking Strategies (PATHS® curriculum; Kusche and Greenberg 1995; Greenberg and Kusche 2006) Curriculum and the PAX GBG (Embry et al. 2003). PATHS is a universal curriculum and set of complementary elements targeting social emotional development that has been shown in large-scale randomized controlled trials to have a beneficial impact on off-task, aggressive, and disruptive behaviors by improving prosocial cognitions and socially competent behaviors (CPPRG 1999, 2002, 2010; Greenberg et al. 1995; Kam et al. 2004; Riggs et al. 2006).

Developed by Barrish et al. (1969) and modified by Embry et al. (2003), the GBG is a group-based token economy in which groups or "teams" are reinforced for their collective success in inhibiting inappropriate behavior. Additional "PAX" elements primarily consist of strategies to promote a positive classroom climate and reinforce good behavior (Embry et al. 2003). The GBG has a substantial body of literature supporting its efficacy (Dolan et al. 1993; Ialongo et al. 1999, 2001; Kellam et al. 2008; Petras et al. 2008).

Laying the Foundation for Successful Intervention Implementation

The focus of this paper is on the direct coaching of teachers, yet two other aspects of coaching were integral to the successful implementation of PATHS and the PAX GBG: (1) fostering administrator support and (2) promoting the school-wide adoption of the values and activities of PATHS and the PAX GBG. Therefore, a brief description of coach efforts in each regard is important.

During an introductory meeting, each coach elicited from school leaders their missions, values, and goals for their schools. Coaches utilized opportunities during this discussion to illustrate how PATHS and the PAX GBG could help administrators achieve their visions for their schools. For instance, when a principal stated that one of her concerns was disruptive behavior and peer conflict resulting in students being sent out of the classroom during academic instruction, a coach might share research about how PATHS and the GBG reduce student disruptive behavior and improve student self-control and social problem solving. Administrator concerns about the programs were also elicited and discussed during the introductory meetings.

To bolster administrator involvement, coaches provided each administrator with guidelines about how to promote the success of PATHS and the PAX GBG. These guidelines included providing time for teachers to deliver the programs and to meet with coaches for ongoing professional development, attending monthly administrator meetings to connect with other school leaders and the program staff to share feedback, and integrating PATHS and the PAX GBG into daily routines and the school improvement plan. Through discussion, coaches conveyed that students and teachers whose school leaders followed these guidelines typically achieve higher levels of results than those reached by students and teachers whose administrators did not provide significant support for PATHS and the PAX GBG.

Administrators participated in monthly meetings with leaders from other schools, the coaches, and the research team to discuss school-wide implementation, coaching of the programs, and any related concerns. Coaches also accompanied administrators on school-wide "walk-throughs" that were guided by a checklist of core intervention components for which to look. Walk-throughs provided an opportunity for each coach to highlight high-quality PATHS and PAX GBG implementation throughout the school and classrooms, and to provide further explanation or clarification to the principal if needed. Additionally, the coach could use this time to share suggestions for ways to improve school-wide implementation and further integrate PATHS and the PAX GBG with the academic curriculum. Revisions and updates to the coaching materials and procedures were based on the feedback and data gathered from administrator meetings and walk-throughs.

In addition to nurturing administrator support for PATHS and the PAX GBG, from the first day of school, coaches emphasized the potential for these programs to

have greater impact when implemented schoolwide, rather than just by teachers inside their own classrooms. Coaches provided all staff members (e.g., paraprofessionals, hall monitors, cafeteria staff) with program materials (e.g., harmonica, posters promoting self-calming, and problem-solving strategies). Coaches also trained all staff members to use PATHS and PAX GBG language and principles in different settings (e.g., hallway, playground, cafeteria) and to integrate the language and principles with their academic curricula and daily routines. As an example, blowing the harmonica is the universal PAX quiet sign; therefore, it can be used by any adult in the school building at any time. Bringing the harmonica into the hallways, cafeteria, resource classrooms, and other areas of the building improve staff cohesion around the PAX GBG and PATHS.

Throughout the school year, building-wide activities (i.e., rewards, competitions, public recognition) enhanced support for the programs. With regard to rewards, coaches carried a variety of prizes (e.g., classroom supplies, $5 gift cards) and notes for writing compliments to award when they observed teachers and staff using program elements. Coaches also set up competitions involving the use of specific program elements, such as the PAX GBG. For example, coaches identified a target number of games to play and all those who met the goal won a specified prize (e.g., lunch bag, T-shirt). Contests were also set up between classrooms or grade levels as a way to promote friendly competition. For example, the grade-level team that used the program elements the most (e.g., delivered the most lessons, plays the most games) in a specified period of time (usually 4 weeks) received a gift certificate for a local teacher supply store. Results of competitions were posted publically and identified winning teams (but not the implementation of individual teachers).

Coaches promoted public recognition of program implementation by placing a bulletin board in a common area (i.e., teacher's lounge, front office) where teachers and other staff members recognized each other's efforts with the programs as well as general successes with written compliments. In addition, each week coaches randomly selected a teacher to spotlight as the "Teacher of the Week" which parallels a PATHS routine called "Kid of the Day." Every teacher was selected for this type of noncontingent reinforcement at some point during the year and was recognized through posted written compliments and announcements over the school intercom. Teachers appeared to enjoy the opportunities to earn rewards and recognition, and these strategies promoted the profile of the programs in each school.

Two-Phased Coaching Model

The remainder of this paper presents a two-phased approach to promoting effective teacher delivery of classroom-based programs (see Fig. 1). The coaching strategies specified in the model reflect an initial *universal* coaching phase that included coaching strategies that were used with all teachers regardless of their skill level. During the second phase, the *tailored* coaching phase, coaching efforts and practices varied according to the specific needs of each teacher (Becker et al. 2013).

Universal Coaching Phase (UCP)

The UCP represents a collaborative coaching approach that included specific coaching activities and strategies used with every teacher involved with delivering the program and school-wide efforts to create a supportive workplace environment for program implementation. The following description begins with coaching activities that occurred after the initial teacher training had taken place. As depicted in Fig. 1 and described in the sections that follow, coaching activities were grouped into two stages that reflect the primary focus of the coaching: connect and cultivate (Chorpita et al. 2012).

Stage 1: Connect

The *connect* stage of the universal coaching phase laid the foundation for successful implementation of the program with its emphasis on developing rapport between the coaches and teachers, preparing the classroom environment, promoting positive expectations for program success, and creating a climate of support for teachers in the school building.

During this stage, which began the week after teachers attended training and lasted approximately 2 weeks, coaches built rapport with teachers and assisted them with preparing their classrooms and students for the intervention. Rapport building involved getting to know teachers as individuals as well as educators. For example, coaches ate lunch in the teachers' lounge, asked teachers about their summer vacations, discussed interests, exchanged stories about teaching experiences, and tried to make other connections based on similarities and experiences. Coaches also clarified their roles as collaborative team members, with an emphasis on dispelling any perceptions that they were evaluating teachers in order to report back to administrators. Additionally, coaches facilitated open discussions to elicit and address teacher perceptions about the implementation demands of the programs. However, the primary way that coaches connected with teachers, and, in turn, connected teachers to the program, was by embodying the principles of the program (Embry et al. 2003). For example, coaches created a positive working relationship by treating teachers with genuine respect and empathy, engaging in collaborative problem solving around implementation challenges, and offering

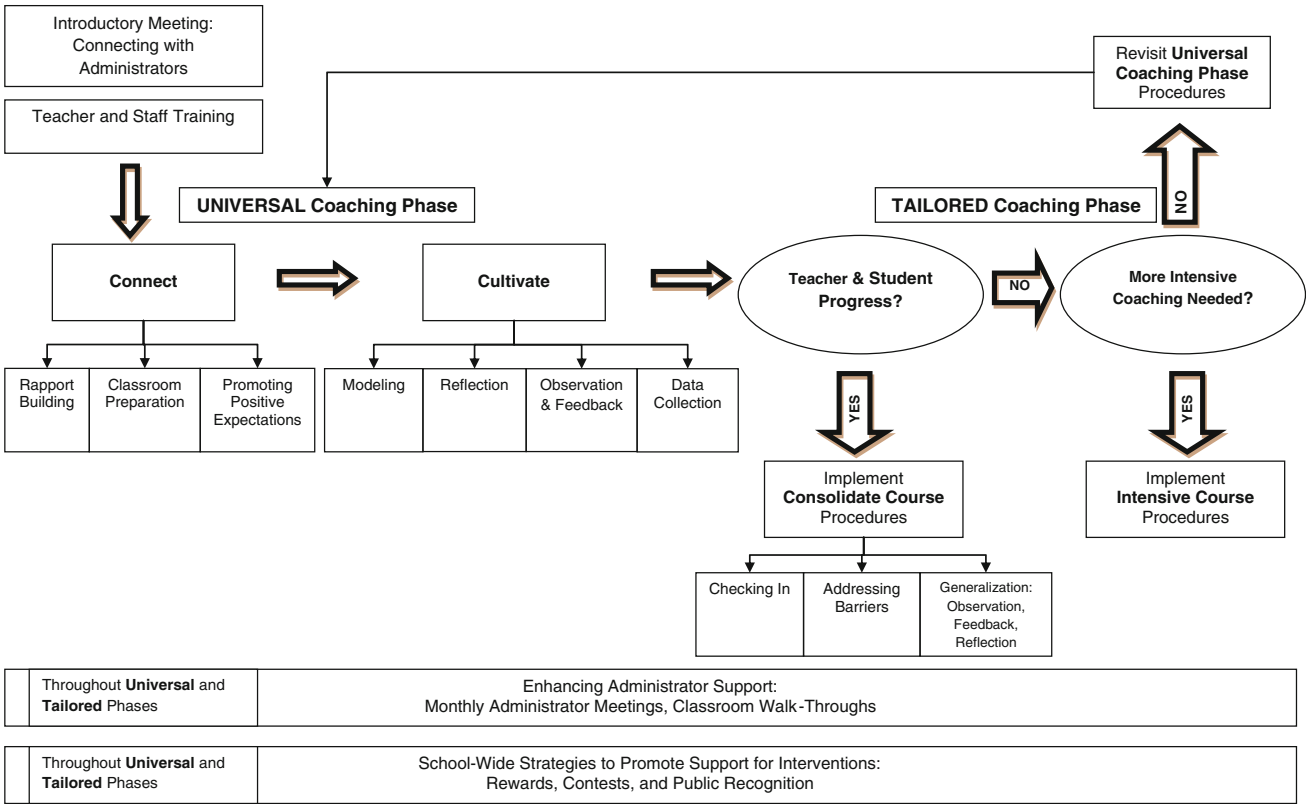

Fig. 1 Two-phased coaching model

sincere verbal and written (and sometimes tangible) reinforcement for teachers' efforts toward enhancing the social, emotional, and academic skills of their students. In these ways, the connections between coaches and teachers, as well as the teachers and the program's values, were strengthened and solidified.

Classroom preparation involved demonstrating the proper use of program materials (e.g., harmonica, timer) and assisting teachers as they prepared the program materials and set up the physical space of their classrooms. Coaches initiated discussions about program implementation and helped teachers identify specific times to use the program and integrate the program into the daily routines of the classrooms. Coaches provided teachers with pacing guides that broke down the program into weekly activities, thereby facilitating teacher efficacy with the program and reducing the likelihood that teachers would feel overwhelmed by a curriculum manual filled with tasks and lessons. Coaches and teachers reviewed the initial program lessons and activities together. This provided the opportunity for teachers to discuss the objectives, ask questions, organize materials, and plan for introducing the material to their students. Importantly, coaches inquired about potential barriers that might interfere with program implementation and helped each teacher develop a plan to address barriers.

Coaches also instilled positive expectations for success with the program. Coaches and teachers partnered to introduce program concepts to the students, although many teachers were so enthusiastic to begin that they did this on their own and even worked ahead of the pacing guide. Through reflection activities, students were introduced to the program values. For example, students identified facets of the classroom environment that promote as well as hinder learning and social relationships.

As described earlier, coaches also forged relationships with school leadership and staff to create a school-wide environment that promotes a positive school climate and student skill development. Through these initial activities, the coach, school leadership and staff, teacher, and students connected around a shared vision of a positive classroom and school environment, thereby promoting the commitment of teachers and students to achieving that vision. At the end of approximately 2–3 weeks, most teachers felt comfortable with the coach and with using basic program materials on their own and were eager to enter the next phase of coaching which involved the active use of program components.

Stage 2: Cultivate

During the 4-week *cultivate* stage, coaches focused on increasing skill development and refinement, promoting

teacher experiences of success, and fostering teacher attributions of student functioning to program use. These goals were achieved through the use of a standard protocol that included the use of modeling, teacher reflection, observation, regular data collection, and performance feedback.

Coaches modeled program components in each classroom. Modeling involved discussing with the teacher the setup and rationale of each component as well as finding opportunities to enlist the teacher's assistance while modeling. For example, when coaches modeled the PAX GBG, they had teachers blow the harmonica to start and stop the game, set the timer, observe behavior, and/or draw a prize after the game. Although giving teachers an opportunity to get their "feet wet" helped pave the way for them using program components without the coach present, some teachers preferred to observe and not participate. In these situations, coaches provided teachers with a checklist listing the core components of the game (or other program element, depending on what the coach was modeling) to guide them through different things to look for as the coach modeled. These checklists focused the teacher's attention on the coach's technique and helped ensure that teachers did not do other work or leave the classroom.

Following modeling, coaches engaged teachers in reflection (e.g., "What did you like about the Good Behavior Game?" "What would you have done differently?" "How do you think the students responded to the game?"). Reflection provided the opportunity for coaches to assess teacher enthusiasm and ambivalence regarding the program, identify modifications that might need to be introduced to fit the program into the classroom, emphasize positive student response to the program, identify barriers to using the program consistently, and foster teacher self-efficacy about implementation. Additionally, reflection helped shape positive associations between student behavioral progress and teacher implementation.

A key element of the initial modeling visit was to encourage teachers to try the modeled element as soon as possible after debriefing. Most teachers were enthusiastic about this opportunity, which allowed coaches an opportunity to observe and offer support when needed. To teachers who were hesitant to try out the skill, coaches provided additional encouragement and assisted them with using the program element. Coaches completed a checklist nearly identical to the modeling checklist to provide data for feedback and reflection after the observation ended. Coaches again encouraged teacher reflection regarding their successful use of the program and student response to the program. Specific verbal praise was offered and the coach also provided written praise notes that were posted in the classroom. Most teachers only needed one visit with modeling, observation, and feedback to grasp the key aspects of the program and implement it with success, although coaches sometimes conducted multiple modeling visits or observations including feedback with a teacher.

After the modeling session, coaches continued to visit each teacher on a weekly or biweekly basis (Becker et al. 2013). Coaching sessions involved observation of key program elements (e.g., Kid of the Day routine, PATHS lessons, PAX GBG). It was important to observe program components early on and at a regularly scheduled time identified by teachers in order to establish a routine around the program components that was less vulnerable to cancellations.

Implementation Monitoring and Support: Bridging the Universal and Tailored Coaching Phases

Data Collection

Data collection began during the *cultivate* stage and continued through the remainder of the school year. Qualitative and quantitative data were routinely collected regarding program dosage (e.g., number of lessons delivered, number of games played), implementation quality (e.g., fidelity ratings), and student outcomes (e.g., student behavioral data).

Program Dosage

Teachers provided information to coaches on a weekly basis regarding which PATHS lessons they delivered to their students. The total number of lessons in the PATHS curriculum was approximately 40, and coaches provided a pacing guide to help teachers deliver lessons regularly. The benchmark for lessons was two lessons per week. Teachers also recorded the number of PAX GBG games played each week, the duration of each game, and student behavior during the game using a "scoreboard" designed for this purpose. The benchmark for the PAX GBG was three games per day.

Implementation Quality

A variety of data were collected during classroom visits. Four times a year, independent observers accompanied coaches to each classroom and completed extensive "rubric" observations to assess each teacher's implementation quality. The first of these rubric observations occurred approximately 6 weeks after training, following a period in which coaches followed a standard protocol that included modeling the program components, observing teachers' first attempt at implementation, and initial feedback with each teacher. During the rubric observation, teachers were asked to deliver a PATHS lesson for which implementation

quality across four dimensions was rated using a 5-point scale on the *PATHS Implementation Rubric* (Domitrovich et al. 2006). The four dimensions are (1) thoroughness of teaching PATHS concepts, (2) level of disruption during lesson, (3) pacing of lesson, and (4) teacher affect and energy during lesson. Higher scores are better and teachers whose mean rating across all four dimensions was approximately 3.0 or higher were generally regarded as implementing with sufficient quality.

Teachers also were asked to play a 5–10-min PAX GBG game during which implementation quality across seven dimensions were rated on a 5-point scale using the *PAX Good Behavior Game Implementation Rubric* (Schaffer et al. 2006). These seven dimensions reflect core components of the game such as preparing students for the game, accurately recording student behavior, and responding neutrally to misbehavior. Higher scores reflect higher-quality implementation and teachers whose mean rating across all seven dimensions was approximately 3.0 or higher were generally perceived to be implementing with sufficient quality. For additional information regarding rubric scores, see Becker et al. (2013).

Given the wealth of information yielded by rubrics, it would be ideal to have a coach use the rubric rating system each time a classroom observation is conducted. Since time and resource constraints often precluded the use of the rubric for each classroom observation, coaches completed a checklist after observations as an index of how thoroughly a teacher delivered a program component. Coaches also queried students about implementation (e.g., "What was the prize after the most recent GBG?").

Student Outcomes

Particularly during the early period of teacher implementation, the integration of student behavioral progress into coaching was an element critical to teacher engagement with the program. During classroom observations, coaches counted disruptive student behaviors for a period outside of the time that the teacher delivered the PATHS lesson and played the PAX GBG. Ideally, these observations lasted 15 min, but were shortened when necessary due to time constraints. Disruptive behaviors included getting out of one's seat without the teacher's permission, using classroom materials inappropriately (e.g., using a pencil or ruler to drum on desk), calling out without permission, and displaying verbally or physically aggressive behavior toward a peer or teacher.

Using these data, coaches guided teachers through reflection about the association between disruptive behavior counts and teacher use of the PATHS lessons and PAX GBG. For example, coaches helped teachers attribute progress related to increased time on task and compliance with classroom rules to the number of games played and lessons delivered. The explicit link between implementation and student behavior progress reinforced teachers who were already using PATHS and the PAX GBG frequently and motivated teachers with high classroom levels of disruptive behavior to increase their implementation.

During program implementation, coaches also assessed student outcomes by asking students about their knowledge (e.g., "What is something you can do when you have a disagreement with another student?") and use (e.g., "When was the last time you used the Control Signals to calm yourself down?") of program skills. During classroom observations, coaches also looked for evidence of students spontaneously demonstrating skills consistent with the program and their ability to use program skills when prompted by their teachers.

Overall, data collection by the coaches reflected a multi-method, multi-trait, and multi-informant process that yielded a rich source of information that was shared with teachers and helped shape future coaching sessions.

Performance Feedback

For each of the core components of both PATHS and the PAX GBG, teachers were provided with written guidelines that described what high-quality implementation of each component looked like. The content of the guidelines was aligned with the implementation rubric. Implementation checklists that identified each performance criterion were created so that when a core component was observed by a coach, the results could be provided in written form and used to facilitate a discussion about performance. Feedback to teachers aligned with these data to ensure that teachers were given guidance consistent with high-quality implementation of the program.

Each time observation data were collected, coaches used it as an opportunity to guide teachers through self-reflection as part of the process of performance feedback. Coaches elicited from the teachers their assessments about the strengths of their performance, as well as areas for continued development. Self-reflection promoted teacher insight and preserved the collaborative relationship, rather than the coach acting as an expert and immediately identifying areas for improvement. Performance feedback was also communicated both verbally and in written forms by coaches to teachers. Coaches were encouraged to always begin with identifying a teacher's strengths before giving any constructive feedback about their implementation. Rather than an exhaustive list of next steps toward improvement, constructive feedback prioritized one or two areas for improvement that would help each teacher experience success and achieve the "biggest bang for the buck" in the classroom. Performance feedback was data driven and had clearly identified benchmarks, so that

teachers were aware of the standards for performance. Additionally, coaches helped teachers make explicit links between their implementation of PATHS and the PAX GBG and student behavioral progress.

Extensive data collection optimized the ability of coaches to make evidence-informed decisions about how best to support teachers. By the end of the *cultivate* phase, coaches arrived at an initial decision point regarding whether a teacher was making adequate progress with implementation and whether students were demonstrating behavioral change (see Fig. 1). Progress assessments were informed by data for each teacher related to program dosage, implementation quality, and student behavior. Although there was not a precise algorithm for determining progress (see Becker et al. 2013 for more discussion of this issue), meeting the identified benchmarks across dosage, implementation quality, and student outcomes typically indicated adequate progress. As is typical of most interventions, these benchmarks have not been empirically validated, so it is unknown whether a certain dosage or level of quality is necessary or sufficient to bring about student gains. At this point, coaches entered the *tailored* coaching phase in which coaching practices were individualized to meet the strengths and needs of each teacher.

Tailored Coaching Phase (TCP)

The TCP consisted of two different courses of action: The first, referred to as the *consolidate* course, was designed for teachers who demonstrated solid implementation following the coaching elements delivered in the universal phase. The *consolidate* course focused on strengthening and reinforcing teacher implementation as well as promoting program generalization and sustainability. Solid implementation was determined by examining all sources of implementation data to ensure that adequate standards of program quality and quantity of delivery were met. The second course of action, referred to as the *intensive* course, was used with teachers who were resistant to implementing either program or whose quality of implementation was poor. The assumption with these teachers was that the teacher could benefit from more time or more intensive coaching supports based on a strategic plan that involved a four-step process grounded in behavioral assessment.

Consolidate Course

While on the *consolidate* course, which lasted the remainder of the school year, coaches focused on helping teachers sustain an effective level of proficiency through check-ins, addressing barriers to implementation, increasing generalization of principles and skills through observation, feedback, and reflection, and maintaining motivation with the continued use of reinforcements (see Fig. 1).

Most teachers were proficient and enthusiastic in their program implementation within 2 months of using the programs (Becker et al. 2013). Helping teachers maintain an effective level of proficiency required weekly or biweekly check-ins lasting 10–15 min with teachers during which teacher perspectives about the programs were elicited, implementation data were collected, and minor barriers to implementation (e.g., not enough time to deliver lesson/play the game; particular student does not appear to respond well to the game) were resolved. Check-ins allowed coaches to monitor implementation efficiently so that they could allocate more time toward teachers who needed more intensive support. When barriers were reported by teachers or noted by coaches, coaches and teachers engaged in collaborative problem solving to identify and implement solutions to reduce barriers.

With regard to generalization of skills, coaches encouraged teachers to look for naturally occurring opportunities during daily school life for students to practice program skills. For example, a classroom conflict provided an ideal opportunity for students to discuss feelings, explore attributions about intention, practice self-regulation, and apply social problem-solving skills taught in PATHS lessons. Having a new student join the class provided an excellent means for solidifying friendship skills as peers were enlisted to teach the new student program concepts. In the case of the PAX GBG, as students and teachers became proficient at playing the game during academic instruction, coaches helped teachers identify other times when the game could provide the opportunity for students to practice self-regulation skills, such as while walking in the hallway, taking a restroom break, or eating in the cafeteria.

Observation, feedback, and teacher reflection remained critical elements, particularly with regard to enhancing the generalization of the program principles. Consistent reflection about the association between implementation and student behavior promoted teacher self-monitoring and prevented minor slips in program implementation from becoming major lapses, thereby contributing to the sustainability of the program. Observation and feedback also provided the opportunity for coaches and teachers to collaboratively problem solve minor issues that arise, such as what to do when a particular student appeared to have challenges using skills taught in the program or how to balance the program with competing demands (e.g., preparing for standardized testing).

Intensive Course

The UCP was effective for helping most teachers introduce and deliver the programs, and therefore, the *consolidate*

course of action was appropriate for helping most teachers maintain their gains; yet, some teachers required more intensive coaching support (Becker et al. 2013). With these teachers, coaches shifted strategies and intensified their coaching to support teacher skill development and implementation.

A number of factors influence teacher proficiency and implementation with any program: competing demands, classroom composition, administrator support, teacher stress/burnout or depression, engagement with the program, etc. The *intensive* course involved a four-step process grounded in behavioral assessment by which coaches worked with teachers to (1) gather information on implementation, (2) develop a hypothesized working model of the barriers to implementation, (3) create a plan for addressing the factors hypothesized to influence implementation, and (4) establish assessment procedures and timelines to measure teacher and student progress. This four-step process is outlined in the *Teacher Implementation Support Planning Checklist* in Table 2.

The following example is provided to demonstrate how these steps were implemented by a coach with a particular teacher using PATHS and PAX GBG:

> I was working with Mr. F., an elementary teacher who had a highly disruptive classroom. He frequently remarked how students don't respect adults and don't care about their education.

Step 1: Assess

Collect Data

Assessment began with ongoing, multi-method data collection. Data were gathered through classroom observations, teacher and student report of program use (e.g., game and lesson frequency), and discussions with the teacher (e.g., teacher reporting implementation difficulties) and students (e.g., "What have you learned recently about feelings?"). This information helped coaches assess the depth and consistency of program implementation, as exemplified by the following:

> When I observed Mr. F., my observation ratings of his program delivery were satisfactory (i.e., 3.1 on rubric; benchmark: 3.0), suggesting that he had the skills to play the GBG; however, he admitted and the students confirmed that he rarely played the game in class (i.e., <1 game/day; benchmark: 3 games/day). Although he was on pace with his pacing guide for lesson delivery (i.e., 2 lessons/week; benchmark: 2 lessons/week), the quality of the lessons needed to improve (i.e., 2.3 on rubric; benchmark: 3.0). His lessons were long (e.g., 45 minutes on average; benchmark: 20-25 minutes), he did not elicit student participation during the lessons, and he rarely linked lesson content to students' everyday lives. Disruptions in the classroom were frequent and included verbally and physically aggressive behaviors.

Table 2 Teacher implementation support planning checklist used with tailored coaching model

Assess	Collect data	Use behavioral observation of teacher and student behavior, teacher and student report of program implementation and effect, etc.
	Identify teacher strengths	Consider teacher's strengths with regard to personal and professional characteristics and program implementation
	Identify implementation challenges	Define implementation challenges in behavioral terms
	Develop hypotheses	Consider the influence of these factors: a. Rapport with coach b. General teaching skills c. Values reflected in the program d. Understanding of program components e. Competing demands f. Motivation g. Ability to manage personal stress h. Classroom composition i. Administrative context
Plan	Establish and prioritize goals	Break long-term behavioral goals into smaller, weekly behavioral goals. Prioritize those that will deliver a quick effect with low effort
	Establish procedures for assessing progress	Consider the data (e.g., observation, teacher report, student report) that will be used to monitor progress
Do		Implement steps associated with short-term goals
Evaluate	Evaluate and monitor plan effectiveness	Collect data and assess progress. Return to earlier steps until goals are achieved

Identify Teacher Strengths

The next step involved identifying the strengths of the teacher based on their own perspective and that of the coach. Identification of strengths allowed a coach to build upon what the teacher was doing well and helped build a positive working relationship between the coach and the

teacher. Strengths reflected personal (e.g., friendly) and professional qualities (e.g., demonstrates high-quality teaching skills) or program implementation (e.g., uses harmonica regularly). Coaches provided explicit feedback to teachers on their strengths in addition to building on these in their support strategies. Continuing the example, the coach identified many strengths for Mr. F., including valuing being an effective teacher and his openness to consultation:

> I could see that Mr. F. was frustrated because he wanted to be a good teacher, but felt powerless to manage student behavior and to change what he perceived as "the way kids are today." I appreciated his willingness to share his concerns and I was able to empathize because I had similar experiences when I was a teacher.

Identify Implementation Challenges

Next, implementation challenges identified by both the coach and the teacher were defined in observable, measurable, behavioral terms. For example, rather than indicate that a teacher was "disorganized" with the lesson, it was much more accurate and informative to say that the teacher "did not have the opportunity to read/prepare the lesson ahead of time" or "did not have necessary materials ready during the lesson." Operationalization of teacher implementation in behavioral terms reduced the internal attributions made by coaches about teacher implementation (e.g., teacher is lazy). It also framed implementation challenges in a way that feedback could be provided using objective data in a nonblaming and nonjudgmental manner (e.g., "I noticed that you had to spend a few minutes in the middle of the lesson to look for materials"). Operationalization facilitated a collaborative approach between the coach and teacher toward developing specific strategies to address the issue (e.g., disorganized is vague and can be an overwhelming problem to work on).

Develop Hypotheses

After identifying implementation challenges, coaches worked with teachers to identify factors that might influence their behavior (examples listed in Table 1). The key to the implementation support process was the development of function-based hypotheses about how these various factors interfere with a teacher's ability to implement the program. Examples of hypotheses include "If the teacher did not view the program as interfering with academic instruction and student achievement on standardized tests, she might devote more time to the program" and "If the teacher were less anxious about being evaluated by the coach, she would allow the coach to observe lessons and provide feedback more frequently." Certainly, program implementation could be influenced by multiple factors; however, the goal was to develop an evidence-informed, hypothesis-driven model of what might be contributing to low program implementation, as in the case of Mr. F.:

> To me, one of Mr. F.'s biggest challenges were his views that the problem was too overwhelming to tackle, thereby resulting in him not implementing much of the program due to the belief it wouldn't work. Additionally, his lessons were too long, lacked student participation, and were not linked to everyday life. I hypothesized that if he could shorten the lessons, increase student participation in the lessons, and relate the content to the students' lives, he would engage students, and thereby decrease disruptive behavior. Increased student participation might also help him connect with his students and gain perspective on their lives so that he would view them in a more positive light.

While it was often the case that hypotheses generated by a coach could be shared with a teacher, there might be situations in which this would be counterproductive to the support process because it might make a teacher feel self-conscious or defensive which could undermine the working alliance with the coach. For example, the coach might hypothesize that the teacher's lack of confidence playing the PAX GBG was related to her avoidance of playing the game. Making this hypothesis explicit to the teacher was less important for the coach than taking steps to provide the teacher with positive experiences as a way to test the hypothesis.

Step 2: Plan

Establish and Prioritize Goals

Goals for teacher implementation reflected the stated goals of the teacher, the needs of the classroom (as indicated by teacher, students, data), and benchmarks such as the level of implementation that the majority of teachers are able to achieve. The process of goal development was usually coach-initiated at this stage of the coaching model because teachers in this phase of coaching typically had demonstrated difficulty setting and achieving goals. Through collaborative discussion, coaches and teachers developed a working draft of the goals, identifying and prioritizing specific and attainable goals for the upcoming week(s). Coaches guided teachers toward goals that would give the teachers the "biggest bang for their buck" in terms of helping them see immediate results if possible. Short-term goals reflected manageable behavioral changes (e.g., to

meet with coach to co-plan the lesson the day prior to the lesson) toward long-term goals (e.g., to deliver lessons on a weekly basis and have all materials available during the lesson). Ideally, these short-term goals also addressed the factors hypothesized as interfering with implementation (e.g., absence of an organization system). For example:

> Based on Mr. F.'s vision for his classroom and my observations in his classroom, one of the long-term goals I thought would fit his vision was to increase positive student-teacher and student-student relationships. He agreed that positive relationships are important in effective classrooms but that he thought he was failing in that regard. I normalized these challenges (e.g., "When I was a teacher…" and "Lots of other teachers I've coached…") and instilled hope that things would improve (e.g., "Upper elementary classrooms are challenging and I think that you are on your way to acquiring some new tools that will build those connections between your students as well as with you. I am here to support you too, so let's put our heads together and figure out where to start").

Mr. F. and I developed a series of short-term goals to address the long-term goal of increasing positive relationships in the classroom. The initial goals included greeting students when they entered the classroom and having at least one student share a personal example during the day. Then, we planned for students to write praise notes to whomever they wanted during the most difficult time of the day: when they returned from lunch. Our plan was to then focus on enhancing student engagement in the PATHS lessons by setting a timer to go off after 20 min (at which point Mr. F. would wrap up the lesson), having him ask for 3 volunteers to share experiences during the lesson, and planning ahead of time how the content might be related to academic material or events in life.

Assess Progress

This step involved identifying ways to assess teacher progress (e.g., observation, teacher report, student report) toward short- and long-term goals. For example:

> When I was in the classroom, observation was a key data source, as well as teacher self-report on the days when I was not present. I also asked students about their most recent lesson or to whom they had written a praise note to get a sense of their involvement.

Step 3: Do

In this step, coaches and teachers implemented strategies identified in the plan to achieve the short-term goals. For example:

> Mr. F. and I implemented our plan together the first two days. He greeted students by name and many shook his hand or gave him a high-five. Afterwards, he said that even those interactions had made him feel more connected with his students. I wrote Mr. F. and his class a note thanking them for starting the day off positively. The next week, Mr. F. incorporated the after-lunch praise notes writing activity into the daily routine. This helped the students calm down and prepare for afternoon instruction. Mr. F. was pleasantly surprised when students wrote notes thanking him for being a caring teacher, thereby reinforcing this activity and enhancing his relationship with students. When I saw him write praise notes to students, I gave him some markers to use in his classroom as a reward. Within three weeks, Mr. F. was focused on enhancing his lesson delivery. He forgot to use a timer, but then assigned that as a classroom job to one of his students. His lessons still went over time, usually because so many students wanted to share their own examples.

Step 4: Evaluate

This step involves repeated progress monitoring toward goals. If progress was apparent, coaches continued to implement strategies to assist the teacher in achieving short- and long-term goals. When progress was consistent, the coach might determine that the teacher had entered the *consolidate* phase of coaching. If progress was not apparent, coaches might need to implement strategies more consistently or intensively, or return to earlier steps and reformulate hypotheses that would better reflect teacher implementation challenges. In the case of Mr. F., it was clear that progress was being made in certain areas but that additional strategies were necessary:

> We observed students being more respectful towards one another and Mr. F. reported he felt more connected with his students. Student participation had increased and disruptive behavior had decreased during the lessons. Horseplay after lunch had also decreased. However, there were still periods of disruptive behavior, such as morning arrival and during classroom instruction. Mr. F. suggested that students write praise notes during morning arrival. Mr. F. also agreed to try the PAX GBG and was pleased with the initial results. During the game, according to the behavioral data I collected, disruptive behavior decreased dramatically. However, student behavior did not improve outside the PAX GBG during the first week. I normalized this experience, saying that consistency is the key to success. Over the course of

three weeks, based on behavioral observation data, we determined that student behavior had decreased in frequency and severity throughout the day. Mr. F. was also able to generalize lesson material a bit more and use events in daily life (e.g., classroom conflict) as teachable moments during which he reinforced social emotional skills.

Discussion

The purpose of this paper was to describe a two-phased coaching model with broad applicability such that it could be used by any coach with a teacher at any level of implementation. The first phase, the *universal coaching phase*, reflects coaching activities that can be used with all teachers to promote proficiency and program implementation regardless of their skill level. The second phase, the *tailored coaching phase*, includes two pathways that promote individualized tailoring of coaching practices to fit the strengths and needs of each teacher. On the one hand, for teachers demonstrating high implementation, minimal coaching is required to consolidate their skills and maintain their implementation. On the other hand, a data-driven hypothesis-testing framework guides coaching activities for teachers who could benefit from additional implementation supports. Together, the phases of this coaching model support evidence-informed coach decision-making.

Presentation of a conceptual coaching model along with details about the practical application of the model addresses gaps in the coaching literature. There is a growing literature on practices that can enhance skill development, including observation, rehearsal, implementation monitoring, and performance feedback (e.g., Fixsen et al. 2005; Han and Weiss 2005; Scott and Martinek 2006), but only a few well-specified coaching models (i.e., CCU, MTP, BRIDGE). The present model differs from existing models in a few notable ways. For example, the CCU (Reinke et al. 2011) targets teachers who are demonstrating low implementation and uses data and motivational interviewing to assist teachers with setting and achieving goals. Yet, the CCU does not explicitly state which additional coaching practices might be applied to help teachers achieve their goals and does not provide guidelines regarding the frequency and sequencing of coaching practices. The current model affords the opportunity to coach all teachers learning an intervention regardless of their implementation levels. The current model also has a toolbox of coaching practices that can be strategically applied to support teacher skill development and address interfering factors. Whereas the CCU uses motivational interviewing to guide teachers through self-reflection, the current model does not explicitly incorporate MI. Of note, however, a pilot test of the integration of the current coaching model with the CCU demonstrated preliminary success (Reinke et al. 2012). Additionally, the CCU presents a menu of options for teachers to determine what they might like to work on, whereas the current model is also collaborative in nature, but coaches typically guide the selection of which practices to improve.

The current model shares features with the MTP (Pianta et al. 2008a, b), such as an emphasis on data collection, teacher reflection, goal setting, progress monitoring, and feedback. Both models appear to be applicable to teachers across skill levels. Differences between the models include the MTP as a web-based coaching tool that requires adaptation of certain coaching practices (e.g., observation through videotape) and precludes the use of others (e.g., classroom modeling, in vivo prompting, incentives). As such, the MTP may offer fewer opportunities for individualizing practices for different teachers, but clearly offers the opportunity to tailor the focus of the coaching toward teacher and classroom strengths and needs.

The current model also shares a number of features with the BRIDGE model (Cappella et al. 2012), including needs assessment, planning, modeling, observation, goal setting, and feedback. Both models offer coaching to teachers across skill levels. As of yet, published materials have not been explicit about how the coaching model is tailored to meet individual needs of teachers and its effectiveness for teachers with varying levels of skill. Additionally, none of these models explicate coaching strategies to promote administrative and school-wide support for interventions.

Tailoring of coaching practices to meet the strengths and needs of teachers and their classrooms are normal and even desirable. The current model provides an explicit method for collecting and interpreting data and using data to inform coaching practices that can be adapted to fit the needs of the teacher and classroom. Providing explicit details about coaching is important, given that a recent review of the past 20 years of coaching and consultation literature found that there is minimal detail provided on what coaches do on a daily and weekly basis with teachers to increase program implementation (Stormont et al. 2013). Due to space limitations, descriptions of coaching activities could not be more detailed; however, the ideas presented begin to paint a picture for the reader about how to apply these strategies when working with teachers.

One of the unique strengths of the current model is that it provides a framework to guide coaches through coaching activities within the context of an evidence-informed model that makes explicit the decision-making points and action steps. First, coaches proceed through two phases (i.e., *connect*, *cultivate*; Chorpita et al. 2012) of *universal* coaching activities, each with a specific purpose, that set the stage for successful implementation for most teachers.

Then, a decision point is reached at which coaches must determine whether teachers are demonstrating adequate implementation based on a variety of data sources. Coaches then transition into the *tailored* coaching phase. If teachers are demonstrating adequate implementation, coaches use strategies to *consolidate* teacher skills and maintain implementation (Chorpita et al. 2012).

If a teacher is experiencing implementation challenges, there is relatively little guidance from the literature for coaches, yet this is one of the most frequent issues that coaches encounter. The current model provides a framework (i.e., *intensive* course) that offers a series of steps (i.e., assess-plan-do-evaluate) to help coaches develop working hypotheses and action plans for reducing significant barriers to implementation, such as competing priorities for teacher time and effort or classroom composition that is overwhelmingly disruptive. As in other coaching models, progress monitoring, collaborative goal setting, and performance feedback are integral, yet the deliberate decision-making framework and the flexible tailoring of coaching activities are the contribution of this model to the current literature.

Another strength of the current model is that it applies to all teachers at all stages of intervention implementation. It can be used at the outset of implementation with teachers who have no prior experience with a program, with those who pick up a program relatively quickly, and with those who appear "stuck" with regard to implementation. Analysis of coaching data indicated that doing a few key practices (e.g., modeling, observation, feedback) over the course of a few coaching contacts was enough to get many teachers up to speed (Becker et al. 2013). Coaches provided continued and more intensive support to others and that support resulted in improved quality of implementation (Becker et al. 2013).

Furthermore, a strength of this coaching model is that it was developed through an iterative process that benefitted from collaboration with coaches in the field, educators in urban schools, and experts in prevention science. The long duration (i.e., 7 years) of the pilot and randomized trial studies provided an optimal context for developing, testing, and refining this coaching model. Detailed feedback from community collaborators was readily incorporated into the coaching materials and procedures. For example, one suggestion from a teacher was to develop detailed weekly pacing guides that would provide an overview of the program "roll out" and a structure to follow over the course of the year. Coaches worked over the summer to develop grade-specific pacing guides that adjusted the expectations for program delivery based on the academic calendar. This was useful for promoting teacher buy-in and motivation when it was reviewed. As another example, coaches observed in their implementation data a decline in program dosage following the winter and other school breaks. Therefore, coaches timed their incentives and competitions to cover those time periods to motivate teachers to use the programs. The iterative and collaborative development process enhances the real-world validity of this coaching model.

This coaching model also provides strategies for promoting administrator support for the interventions through an introductory meeting, monthly administrator meetings, and a framework for conducting classroom walk-throughs. Additionally, numerous strategies for enhancing school-wide support are provided within this model, including training for all staff, individual rewards, contests, and public recognition for implementation efforts. Coaching practices related to administrators and school-wide efforts are rare in the literature.

These strengths have the potential to extend the reach of the proposed coaching model to other school-based programs as well as other settings in which coaches work. Certainly, the proposed model could be applied to most classroom-based social, emotional, and behavioral interventions. Moreover, it could be used by individuals coaching school-based programs with an academic focus, such as literacy coaching (Atteberry and Bryk 2011). Coaches are being employed as workforce development supports in a variety of settings including nursing (e.g., Rahman et al. 2012), primary care (e.g., Simkin-Silverman et al. 2011), and the workplace (e.g., Ladegard 2011). It stands to reason that decision-making frameworks such as the proposed model could advance the science and practice of coaching across numerous settings.

At the same time, there are notable limitations to the current coaching model. This coaching model assumes that at least a minimum amount of time can be devoted to coaching; therefore, this model may require modifications in substantially under-resourced school environments in which the coach has multiple professional roles and responsibilities. For example, perhaps team meetings or staff meetings could be a venue for discussion of program implementation and teacher reflection rather than individual meetings when coaches and teachers are pressed for time. It is important to note that this model was developed within an under-resourced urban school district, thereby providing evidence for its feasibility despite significant resource constraints. Another limitation is that this model lacks comparative effectiveness data. Although there is empirical evidence that coaches using this model could effectively support teachers with a variety of skill levels (Becker et al. 2013), its effectiveness relative to other coaching interventions has yet to be demonstrated empirically. Yet, the ideals of practice-based research suggest that one of the best sources of evidence is local evidence. Coaches who opt to use this model would be well-served by collecting data to determine whether this model is effective for the teachers with whom they work.

Naturally, coach data collection was constrained by time and resources to some extent. Rubric observations were conducted four times per year, but it would be helpful for coaches to use the rubric framework to assess teacher implementation during every classroom observation. Additionally, a system for regularly observing student behavior and collecting brief reports from students about their knowledge of program content and skills would be desirable. However, even intermittently graphing student data and sharing that information with teachers could enhance teacher perception of the value of the programs and motivate teachers to increase or sustain implementation.

Given that students benefit from high-quality program implementation (Curby et al. 2009; Derzon et al. 2005), the benefits to students can be enhanced through the dissemination of coaching models such as the one presented in this paper. Yet, more work needs to be done. It is important for future research of coaching models to delineate the amount of time coaches spend in different coaching activities with teachers (Becker et al. 2013). Additionally, it is important to identify methods for distinguishing between teachers that benefit from universal support and teachers with more significant needs (e.g., burnout, stress, depression, weak instructional skills) who could benefit from more intensive coaching supports. Further development of strategies to influence potentially modifiable barriers to implementation (e.g., poor rapport with coach, competing demands) is also critical to increasing the effectiveness of classroom-based interventions. Research on the *tailored* coaching phase is complicated because every teacher receives different coaching supports; therefore, testing the efficacy of individual components within factorial designs or multiple baseline designs may be useful for determining the effectiveness of tailored coaching interventions. Finally, testing existing coaching models with school staff rather than outside consultants who serve as coaches will help define the parameters of coaching. Additional research on coaching and its parameters has the potential to enhance the decision-making framework proposed in this paper to improve the effectiveness of coaching and, ultimately, the outcomes for students.

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