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EDUCATION AND TREATMENT OF CHILDREN

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Special Issue

PBIS as Prevention for High-Risk Youth in Alternative Education, Residential, and Juvenile Justice Settings

Guest Editors: Kristine Jolivette, Georgia State University, Nicole Cain Swoszowski, The University of Alabama, and Robin Parks Ennis, Clemson University

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PBIS as Prevention for High-Risk Youth in Alternative Education, Residential, and Juvenile Justice Settings

This special issue of *Education and Treatment of Children* explores the use of positive behavior interventions and supports (PBIS) as a means of prevention for high-risk youth being served in non-traditional, more restrictive educational settings including alternative education (AE), residential, and juvenile justice (JJ) settings. PBIS is a multi-tiered framework differentiating interventions and intensity of delivery based on student needs and data; and is applicable across all education settings. Currently, the PBIS framework has been implemented in many traditional education settings and has recently been adopted and adapted to non-traditional settings. Youth within these settings present a wide range of academic and behavioral deficits and excesses that could benefit from the tiered support within the PBIS framework.

The goal of this special issue is to provide empirical and practical information on the PBIS framework to educators and a wide-range of service providers (e.g., behavior specialists, counselors, mental health, advocacy, and policy organization personnel) who work with high-risk youth in AE, residential, and JJ settings to improve youth outcomes and teacher effectiveness. In an effort to (a) support the continued and extended use of PBIS in these settings; (b) focus on the utility of PBIS as a method of prevention, in particular as a means to address the school-to-prison pipeline phenomenon of more restrictive placements and possible incarceration; and (c) provide resources and research directions for the field, we have assembled articles that address implementation of PBIS in AE settings across the tiers and provide lessons learned from research and implementation.

To begin, we offer articles that provide an overview of the overarching goals of and need for PBIS in restrictive educational settings. Simonsen and Sugai offer a rationale for why PBIS is needed in restrictive educational settings by linking the broader PBIS literature to the needs of high-risk youth in these settings and how interventions can be intensified across the three tiers. To further contextualize this need, Benner and colleagues offer support for how PBIS can be used to bridge the achievement gap between high-risk youth and their typically developing peers through the use of effective instructional practices. Swain-Bradway and colleagues present common facilitators and barriers from stakeholder interviews of administrators and PBIS team members currently implementing PBIS in AE, residential, and JJ settings to guide future implementation of PBIS across these settings.

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Next, in an effort to provide empirical support and lessons learned from implementing PBIS across the tiers, we offer examples at the primary (tier I), secondary (tier II), and tertiary (tier III) tiers. George and colleagues highlight components of and findings from 15 years of implementation of primary tier PBIS within an AE setting. At the secondary tier, two empirical studies are provided, one with a behavioral focus and the other an academic focus, implemented within two residential facilities. Swoszowski and colleagues describe the effects of Check-in/Check-out and Check-in/Check-up/Check-out for a non-responder on the off-task behaviors of four elementary students with behavioral challenges and special needs. Ennis and colleagues describe the effects of self-regulated strategy development on the writing skills of elementary students with emotional and behavioral disorders. At the tertiary tier, Scott and Cooper provide considerations on how to implement and intensify evidence-based practices across AE, residential, and JJ settings.

Finally, papers on issues surrounding adapting and adopting PBIS in these more restrictive settings are provided. Sprague and colleagues provide a rationale and guidelines for the implementation of PBIS practices across the tiers in JJ settings, including benefits for youth and staff members. Johnson and colleagues report the results of schoolwide PBIS implementation in a Texas JJ facility including decreases in behavioral incident reports, improvements in school attendance, and increases in career and technical industry certifications. Scheuermann and colleagues describe and report the results of a survey on a comprehensive PBIS coaching model for use in JJ settings. Lampron and Gonsoulin present advocacy initiatives for PBIS implementation in restrictive settings, including resources for practitioners, families, and educators. Mathur and Nelson provide a summary of the status of PBIS as prevention for high-risk youth across restrictive settings and offer future directions for researchers, families, and advocacy groups on how to better meet the needs of youth through the use of PBIS as a form of prevention of further academic and behavioral problems.

We hope these articles will provide an overview of where we are as a field in supporting the needs of high-risk youth served in more restrictive settings by using PBIS as a means of prevention. The current school-to-prison pipeline phenomenon occurring in the lives of some youth cannot continue, and we hope this issue also will serve as a call to action to the field for continued implementation of PBIS to provide students in these settings the same opportunities as students in traditional school settings, and furthermore prevent and address the pejorative outcomes for these students.

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Nicole Cain Swoszowski,
and Robin Parks Ennis

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PBIS in Alternative Education Settings: Positive Support for Youth with High-Risk Behavior

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Abstract

Many public schools are experiencing improved student, staff, and school outcomes with the adoption of a positive behavioral interventions and supports (PBIS) framework, which organizes evidence-based practices into an integrated continuum of supports. Although alternative programs are often more restrictive and specialized because of the intensified needs of their youth, they share instructional, behavioral, and organizational characteristics with public schools. The purpose of this article is to describe how the similar challenges and characteristics of alternative and public schools support the use of a PBIS framework as a means to support the needs of youth who display high-risk behavior.

Keywords: Alternative Education, Restrictive Placements, Positive Behavior Support, School-wide Interventions, PBIS, SWPBS, High-risk Behavior

Large numbers of youth are educated in restrictive or alternative education (AE) settings. AE schools and programs, including those housed in juvenile detention centers, serve approximately 645,500 youth (Carver, Lewis, & Tice, 2010). Estimates suggest that between 12% (Lehr, Tan, & Ysseldyke, 2009) and 50% (Foley & Pang, 2006) of these youth have disabilities, and most youth are placed in restrictive settings as a result of significant behavior challenges. Public school districts report transferring youth to AE settings for a variety of reasons, including physical aggression (61% of districts); "disruptive verbal behavior" (57%); "possession, distribution, or use" of controlled substances (57%); chronic academic failure (57%) or truancy (53%); possession or use of firearms (42%) or other weapons (51%); "arrests or involvement with the criminal justice system" (42%); teen parenthood (31%); and/or mental health needs (27%; Carver et al., 2010, p. 11). Therefore, AE settings are required to support youth with a variety of behavioral needs and challenges.

Empirical research on the presence and effectiveness of behavior support practices in AE settings is limited (e.g., Flower, McDaniel, &

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Jolivette, 2011; Lehr, 2004), and initial evidence suggests that "typical" behavior management practices in these settings may be more punitive than positive (e.g., Lehr & Lange, 2003). Fortunately, researchers have suggested a variety of potentially effective proactive strategies for AE settings, including supportive school climates, preventative and positive practices, effective classroom management, social skills instruction, adult mentoring, individualized and function-based behavior support, flexibility and choice, functional assessment and curriculum, effective academic instruction/support, specialized teacher training, data-based decision making, collaboration, and parent involvement (Guerin & Denti, 2004; Quinn & Piorier, 2006; Quinn, Rutherford, & Osher, 1999; Raywid,1983; Tobin & Sprague, 2000; Van Acker, 2007). Further, researchers have recommended organizing and implementing practices within a positive behavioral interventions and supports (PBIS) framework (e.g., Jolivette, McDaniel, Sprague, Swain-Bradway, & Ennis, 2012; Jolivette & Nelson, 2010; Nelson, Sprague, Jolivette, Smith, & Tobin, 2009; Read & Lampron, 2012; Simonsen, Pearsall, Sugai, & McCurdy, 2011).

We believe that a clear and compelling rationale exists for AE settings to implement a comprehensive continuum of positive and preventive practices within a PBIS framework. First, restrictive settings experience some of the same challenges as general education settings. Second, evidence supports the adoption of PBIS in general education settings. Third, emerging evidence and practice demonstrate that PBIS can be implemented within a variety of AE settings, such as day treatment programs, alternative schools, residential programs, and juvenile justice facilities.

Alternative and General Education Settings Share Similar Challenges

When youth fail to respond to typical interventions, a common "reflex" is to become more reactive and punitive. Both traditional and AE settings have adopted a variety of reactive and punitive procedures, including zero tolerance polices, which require an automatic removal, and law enforcement responses (e.g., restraints, arrest, detainment) to punish or "control" youth behavior. Unfortunately, for youth with long histories of chronic problem behaviors, these reactive responses tend to be the least effective and may lead to abuse and unethical actions, increases in problem behavior, poor adult relationships, and school dropout (Walker, Ramsey, & Gresham, 2004). Thus, both traditional and AE settings need to shift toward the use of more positive and preventive practices that are constructive, effective, and less likely to result in ethical violations and abuse in schools.

Evidence Supports PBIS in General Education Settings

To make a shift toward positive and preventative practices, approximately 20,000 schools have adopted PBIS (http://www.pbis.org)—a data-driven framework for organizing (a) positive, preventive, and evidence-based practices that result in desired youth outcomes and (b) systems features (e.g., teaming structures, professional development supports, staff recognition) that promote sustained implementation with fidelity. Practices within PBIS are organized into a three-tiered framework, based on decades of prevention theory and science (e.g., Caplan, 1964; Walker et al., 1996), including universal (tier 1), targeted-group (tier 2), and intensive individualized (tier 3) support. Numerous experimental studies have demonstrated the effectiveness of practices within each tier of PBIS in general education settings (see Horner, Sugai, & Anderson, 2010).

To increase the likelihood of staff implementing positive practices with fidelity across time, PBIS schools determine meaningful outcomes, collect and review data to make decisions, and invest in systems to support implementation. For example, PBIS schools establish behavior leadership teams, facilitated by a coach. All team members attend training events, organized by state or regional PBIS trainers, and develop a data-based action plan to guide implementation. Members of the leadership team engage the rest of the school staff in developing plan components, using data to drive decision-making, implementing all selected interventions with fidelity, and recognizing staff members for implementation efforts. Thus, PBIS provides the structure and support that results in both desired youth outcomes and implementation fidelity across time (e.g., Bradshaw, Mitchell, & Leaf, 2010; Horner et al., 2009).

The PBIS Framework May Be Intensified in Alternative Settings

When youth who display high-risk behaviors are educated together in an AE setting, a common misconception is that all youth require tier 3 supports, and the other tiers are irrelevant. Instead, experts suggest that all three tiers are necessary, and the critical elements of PBIS (i.e., outcomes, data, systems, and practices) within each tier should be adapted and intensified based on the responsiveness of the youth's behavior (see Jolivette et al., 2012; Nelson et al., 2009; Read & Lampron, 2012; Simonsen et al., 2011 for detailed recommendations). Tables 1–3 presents a possible model for how the critical elements of PBIS may be adapted and intensified within each tier of PBIS for AE settings. For example, "typical" tier 1 practices or supports (Table 1) may need to be intensified by providing more (a) explicit and frequent

Table 1
Potential Adaptation of PBIS Tier 1 Critical Elements (Outcomes, Data, Systems, and Practices) for AE Settings

Outcomes	School-wide outcomes related to all students and all staff, which may include: • Increases in the percent of • Staff members implementing Tier 1 PBIS with fidelity • Students demonstrating expected appropriate behavior • Students returning to a less restrictive environment (LRE) • Decreases in the percent of students receiving disciplinary or crisis intervention procedures
Data	Indicators of outcomes, fidelity, and social validity of Tier 1 implementation, which may include: • Counts of incident reports, use of crisis procedures, and other discipline records • Academic data for all students • Percent of students returning to LRE • School-wide Evaluation Tool (Sugai, Lewis-Palmer, Todd, & Horner, 2005) • Benchmarks of Quality (Kincaid, Childs, & George, 2005) • Primary Intervention Rating Scale (Lane, Kalberg, Bruhn, Driscoll, Wehby, & Elliott, 2009) • Additional school-specific measures of fidelity and social validity of tier 1 implementation (e.g., Farkas et al., 2011)
Systems	Teaming and coaching structures, professional development, and proactive and positive supports for staff to increase implementation of Tier 1, which may include: • School-wide representative leadership team, facilitated by a coach, to coordinate, implement, and monitor effects of school-wide practices • Class- or unit-wide teams to coordinate, implement, and monitor effects of class- or unit-wide practices • On-going professional development activities related to Tier 1 practices • Access to additional coaching supports based on need (differentiated staff support) • Staff recognition systems to acknowledge staff members' implementation of tier 1 practices
Practices	School-wide positive and proactive interventions implemented by all staff to support student behavior across all settings, which may include: • Establishing, teaching, prompting, and monitoring student behavior with respect to a few positive setting- and class-wide expectations • Frequent and explicit school- and class-wide social skills instruction • School-and/or class-wide student recognition systems (e.g., point card or check-in/check-out intervention) • Continuum of responses for inappropriate behavior that include an instructional focus

social skills instruction, (b) positively stated prompts for occasioning appropriate social skills; (c) active and frequent monitoring to promote engagement in programming across settings and contexts; and (d) frequent, systematic, and functionally-relevant reinforcement for appropriate behavior (e.g., using a point card or a modified check-in/check-out approach across all students); and (e) functionally-appropriate responses to problem behavior (e.g., ignoring attention-maintained problem behavior, rather than having a problem solving conversation, or continuing to present demands to youth engaging in escape-maintained problem behavior, rather than sending the youth out of the room).

If the youth's behavior is unresponsive to tier 1 practices, additional tier 2 practices (Table 2) may need to be added, such as including an individualized goal on a youth's school-wide point card, providing additional adult mentoring and support to enhance social skills instruction, and developing a menu of more individualized reinforcers. For youth whose behaviors are unresponsive to tier 2, individualized tier 3 practices may be added. Tier 3 practices (Table 3) should be based on a full functional behavioral assessment (i.e., records review, functional assessment interviews, and systematic direct observations of youth behavior in context), documented in an individualized behavior support plan, and developed through a team- and data-driven person centered planning or wraparound process (e.g., Eber, Sugai, Smith, & Scott, 2002). In a restrictive setting, tier 3 supports are also likely to require additional staff resources (e.g., a 1:1 or 2:1 ratio) or programming configurations.

Results from descriptive case studies, where PBIS elements (outcomes, data, systems, and practices) were adapted for AE implementation, suggest that implementing intensified practices within a PBIS framework may result in positive outcomes for youth educated within AE settings, including increases in appropriate behavior, decreases in problem behaviors, and decreases in use of crisis-emergency responses, such as restraint (Farkas, Simonsen, Migdole, Donovan, Clemens, & Cicchese, 2011; Kalke, Glanton, & Cristalli, 2007; Miller, George, & Fogt, 2005; Simonsen, Young, & Britton, 2010). In addition, single-case design studies have demonstrated that targeted-group interventions, such as check-in/check-out, have promise in AE settings (e.g., Ennis, Jolivette, Swoszowski, & Johnson, 2012; Swoszowski, Jolivette, Fredrick, & Heflin, 2012). Thus, emerging evidence supports the implementation of intensified proactive and positive practices within a PBIS framework to support youth in AE settings.

Table 2
Potential Adaptation of PBIS Tier 2 Critical Elements (Outcomes, Data, Systems, and Practices) for AE Settings

Outcomes	Outcomes related to targeted-group of students and staff implementing Tier 2 support, which may include: • Increases in the percent of • Staff members implementing Tier 2 support with fidelity • Students demonstrating appropriate targeted behavior • Decreases in the percent of targeted students receiving disciplinary or crisis intervention procedures
Data	Indicators of outcomes, fidelity, and social validity of Tier 2 implementation, which may include: • Counts of incident reports, use of crisis procedures, and other discipline records • Academic data for targeted students • Individual Student Evaluation Tool (ISET; Anderson, Lewis-Palmer, Todd, Horner, Sugai, & Sampson, 2011) • Monitoring Advanced Tiers Tool (MATT; Horner, Sampson, Anderson, Todd, & Eliason, 2012) • Intervention Rating Profile-15 (IRP-15; Martens, Witt, Elliott, & Darveaux, 1985) • Additional school-specific measures of fidelity and social validity of tier 2 implementation
Systems	Teaming and coaching structures, professional development, and proactive and positive supports for staff to increase implementation of Tier 2, which may include: • Articulating functions within the school-wide team to • Identify students who are not responding to Tier 1 supports by clear data-decision rules • Initiate and monitor implementation of Tier 2 supports for identified students • "Move" students along the continuum of supports (i.e., intensify or fade supports) based on data • On-going professional development activities and access to coaching supports related to Tier 2 practices • Including a focus on Tier 2 within staff recognition system
Practices	Targeted or intensified positive and proactive interventions implemented by staff to support targeted-students' behavior across all settings, which may include: • Additional teaching, prompting, and monitoring with respect to positive setting-wide expectations • More frequent or explicit social skills instruction • Additional mentoring and structure provided within the setting-wide point or check-in/check-out intervention (e.g., individualized goals, additional check-ins) • Increased instructional support related to chronic social-behavior errors

Table 3
Potential Adaptation of PBIS Tier 3 Critical Elements (Outcomes, Data, Systems, and Practices) for AE Settings

Outcomes	Outcomes related to individual students, which may include: • Increases in the percent of • Staff members implementing individualized behavior support plans (BSPs) and or more comprehensive plans designed through wraparound process with fidelity • Individual students making progress toward individualized replacement and desired behavior goals • Decreases in individual students' displays of identified and tracked problem behavior
Data	Indicators of outcomes, fidelity, and social validity of Tier 3 implementation, which may include: • Functional behavioral assessment (FBA) data • Student-specific data related to appropriate and problem behaviors identified on FBA • Academic data for targeted students • ISET • MATT • IRP-15 • Student plan-specific measures of fidelity and social validity of tier 3 implementation
Systems	Teaming and coaching structures, professional development, and proactive and positive supports for staff to increase implementation of Tier 3, which may include: • Articulating functions within the school-wide team to identify students who are not responding to Tier 2 supports by clear data-decision rules • Forming student-centered Tier 3 teams (e.g., teacher, parent, student, and behavior expert) • Initiate and monitor implementation of Tier 3 supports for identified students • Adjust and/or fade supports based on data • On-going professional development activities related to Tier 3 practices • Including a focus on Tier 3 within staff recognition system
Practices	Individualized and intensive positive and proactive interventions, based on a functional-behavioral assessment and implemented to support individual students' behavior, which may include: • Antecedent strategies that include environmental changes and added prompting for replacement and desired behavior • Instructional strategies to explicitly teach replacement behavior(s) and a plan for shaping toward desired behaviors • Consequence strategies that provide functionally appropriate reinforcement for replacement behavior(s), increase reinforcement for desired behaviors, and prevent or reduce reinforcement currently maintaining problem behavior(s)

Conclusion and Call for Future Research

The PBIS framework provides the systems and tools for establishing a continuum of evidence-based practices, regardless of whether the settings is a general or special education classroom in a pubic school; an elementary, middle, or high school; a lock-down correctional facility; or an alternative program for youth with particular academic and/or behavior support needs. The critical operational feature is a continuum of evidence-based practices that first considers what all youth need from all staff across all settings (tier 1), then intensifies these supports for groups of youth whose behaviors do not respond sufficiently for success (tier 2), and finally intensifies and individualizes further for youth who require highly individualized or personalized supports (tier 3).

The number of documented demonstrations of a PBIS framework in restrictive settings is growing, and the logic appears to be applicable for improving behavior supports for youth whose needs may exceed the capacity of general education classroom and school settings. The key, however, is to ensure that the best evidence-based practices have been selected and implemented with the highest degree of fidelity (accuracy and fluency) before interventions and supports are intensified. Otherwise, decisions to exclude youth become more likely and the reactive solution is movement toward zero tolerance policies with the increased use of aversive and potentially harmful outcomes (Losen & Gillespie, 2012; Read & Lampron, 2012).

Although initial evidence supports implementing PBIS in restrictive settings, additional research is needed. The most important line of research is the systematic replication of the PBIS framework, which is supported by empirical evidence in traditional educational settings, within the range of AE setting program configurations (e.g., juvenile justice, mental health, topic/theme schools, diversion programs, residential and afterschool programs, hospital program). In addition, future researchers should conduct investigations to determine (a) what practices should be included in a continuum of support for different populations of youth; (b) what data-based decision rules should be used to guide increasing or decreasing the intensity of an intervention; (c) how the behavior support continuum can be linked across classroom, school, and facility settings (e.g., general to special education, public to non-public school; facility to neighborhood school); (d) what an integrated continuum of support for academic, social behavior, and specialized curricula would look like in an AE setting; (e) how a continuum of behavior support would operate where youth enrollment or stay might vary (e.g., 1-3 day stay versus 30-60 day stay versus a semester stay versus a several-year-long stay);

and (f) how different or similar parent and community involvement would be in an AE setting continuum of behavior support.

AE programs can provide important behavior support for youth with specific and special learning and behavior needs; however, evidence-based practices must be organized so that youth, staff, and family members can benefit. The PBIS framework offers a means of achieving this organizational effectiveness and efficiency; and, with more systematic research, the features of this implementation will be better understood, informed, and implemented in AE settings.

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Closing the Achievement Gap of Youth with Emotional and Behavioral Disorders through Multi-Tiered Systems of Support

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Abstract

It is well documented that youth with or at-risk for emotional and behavioral disorders (E/BD) have severe deficits in their academic functioning. To begin to address these deficits, we focus on the need to close the opportunity gap by providing access to multi-tiered systems of academic prevention, maximizing academic learning time, and providing explicit instruction for youth with E/BD. We offer recommended positive behavior interventions and supports necessary to improve engagement in instruction. Closing the achievement gap using multi-tiered academic supports requires best practices for universal screening and diagnostic assessment to understand youth academic needs. We detail the key elements of explicit instruction directly linked to improved academic performance. We conclude with alterable instruction factors for intensifying instruction and emphasize the need for intensive language instruction for the majority of youth with E/BD.

Keywords: Multi-Tiered Systems of Support, Academic Intervention, Achievement Gap, Emotional and Behavioral Disorders, Engagement

Youth with emotional and behavioral disorders (E/BD) require multi-tiered systems of support (MTSS) or prevention, due to the intensity of their behavioral *and* academic challenges. Indeed, a plethora of research has demonstrated that youth with E/BD show moderate to severe academic skill deficits that worsen over time relative to typically achieving youth (e.g., Wagner, 1995) and youth with

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learning disabilities (e.g., Scruggs and Mastropieri, 1986). A large body of literature indicates that the social and behavioral challenges of youth with E/BD interfere with instruction and, in turn, result in learning difficulties (e.g., Hagan-Burke, Kwok, Zou, Johnson, Simmons, & Coyne, 2010). Indeed, national studies indicate youth with E/BD have an average GPA of 1.4, are absent an average of 18 days per school year, and 58% drop out (e.g., Bradley, Doolittle, & Bartolotta, 2008). Data from the Special Education Elementary Longitudinal Study and the National Longitudinal Transition Study-2 reveal that, compared with peers with and without other disabilities, youth with E/BD experience the bleakest school and post-school outcomes (Wagner et al., 2006). These youth are at a much higher risk for being arrested, using and abusing illicit substances, obtaining and maintaining employment, lower income earning, and long-term dependence on the welfare system and mental health services (e.g., Mayer, Lochman, & Van Acker, 2005).

Multi-tiered prevention systems of academic support are effective for closing the achievement gap experienced by youth with E/BD. Several reviews of the literature suggest that youth with E/BD respond to explicit teaching delivered in a range of formats (e.g., large group, small group, individual; Benner, Nelson, Ralston, & Mooney, 2010; Mooney, Epstein, Reid, & Nelson, 2003; Ralston, Benner, Tsai, Riccomini, & Nelson, in press). This is encouraging to staff seeking to improve the academic outcomes of youth with E/BD (Nelson, Benner, & Mooney, 2008). Explicit instruction is an unambiguous and direct approach to teaching with an emphasis on providing students a clear statement about what is to be to learned, proceeding in small steps with concrete and varied examples, checking for student understanding, and achieving active and successful participation of students (e.g., Baker, Fein, & Baker, 2010; Nelson et al., 2008). Its effectiveness for improving academic achievement is supported by research (National Institute of Child Health and Human Development, 2000). Further, explicit academic instruction works for youth with E/BD served in community, non-school based settings as well. For example, after a decade of study into the educational needs of juvenile offenders, researchers of the Juvenile Justice Educational Enhancement Program (JJEEP, 2005) concluded that explicit, individualized instruction, particularly focused on reading, was a best practice to address the educational needs of this population. In their systematic review of empirical evaluations of programs to reduce crime, researchers from the Washington State Institute for Public Policy found that educational programs made the largest contribution to crime reduction of the multiple programs reviewed, reducing recidivism by 19.4% (Drake, Aos, & Miller 2009).

Federal initiatives (Individuals with Disabilities Education Improvement Act, 2004; National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010; No Child Left Behind Act, 2001) require that all youth have access to effective primary or core (tier I) prevention. Youth with E/BD tend not to have full access to primary academic prevention provided to all youth in a school because they are likely to be primarily educated in self-contained settings (Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005). Researchers observing self-contained classrooms serving youth with E/BD reported that the majority of teachers provided little or no instruction (e.g., Shores, Jack, Gunter, Ellis, DeBriere, & Wehby, 1993). While researchers have examined the achievement gap that widens over time between youth with E/BD and their peers, perhaps the more salient concern is the gap in opportunity to access primary prevention and the supplemental explicit instruction offered within secondary and tertiary prevention systems. Closing the achievement gap begins with first closing the opportunity gap, or the gap in access to primary, secondary, and tertiary prevention systems.

At every level of prevention, effective instructional and classroom management practices provide the foundation for youth engagement and learning, which in return is associated with decreases in problem behaviors (Conroy, Sutherland, Haydon, Stormont, & Harman, 2008). To illustrate, Nelson (1996) conducted a comparative analysis of the effects of explicit instruction, cooperative learning, and independent learning instructional approaches on the classroom behavior (i.e., on-task and disruptive behavior) of youth with E/BD. They found differences in the classroom behavior of youth during the three instructional approaches. Youth consistently displayed higher rates of on-task behavior and lower rates of disruptive behavior during explicit instruction. These results indicate that explicit instruction is a powerful tool available to teachers to improve the classroom behavior of youth with E/BD.

In the remainder of this article, we begin with the need to close the opportunity gap by maximizing academic learning time for youth with E/BD as a form of prevention for further difficulties. Despite the fact that youth with E/BD are responsive to instruction, the academic needs of this population are often eclipsed by their behavioral needs (Warr-Leeper, Wright & Mack, 1994). We provide a summary of the behavioral mechanisms that contribute to non-compliance, defiance, and lost instructional time. We offer recommended positive behavior interventions and supports during instruction. Next, we focus on closing the achievement gap using multi-tiered academic supports. We highlight use of universal screening and diagnostic assessment

to understand youth academic needs. Finally, we detail the key elements of explicit instruction directly linked to improved academic performance.

Closing the Opportunity Gap: Maximizing Instructional Time

One of the largest impediments to improving academic instruction provided to youth is the fact that adults tend to focus more attention on interventions and techniques designed to ameliorate youth behavior in an effort to create an environment that is conducive to instruction (Levy & Chard, 2001). The assumption is that instruction cannot occur unless youth behavior is under control. The end result is much adult attention is devoted to managing disruptive behavior with instruction not afforded much time or careful attention. Researchers have found that about 58% of devoted classroom instructional time is lost due to problem behavior (e.g., off-task, disruptive; Martella, Nelson, Marchand-Martella, & O'Reilly, 2012). Of course, even when youth are engaged, they may not be successful with the academic task. Researchers have found that youth are *engaged and successful* only 17%, or about one hour, of the 6 hours of available instructional time per day in typical settings (Martella et al., 2012). The window of opportunity for academic learning time, where youth are engaged and successful, is smaller for youth with E/BD given that teachers of these youth devote approximately 30% (less than 2 hours) of the school day to academic instruction (Wehby, Lane, & Falk, 2003).

Coercion theory provides an explanation for the lack of instructional focus for youth with E/BD (Patterson, 1995). Researchers indicate that these same coercive interaction patterns occur between teachers and youth who exhibit disruptive behaviors, resulting in youths' behavior directing teachers away from instruction. The sequence of teacher instruction followed by youth noncompliant or disruptive behavior lead to escape and avoidance behaviors by the teacher (Gunter, Jack, DePaepe, Reed, & Harrison, 1994). The end result is teachers reduce their overall curriculum demands and often terminate instruction by removing the youth from the classroom or by simply not asking the youth to complete academic tasks.

Positive Behavior Interventions and Supports for Youth Engagement

In their review of the literature on reading interventions for youth with E/BD, Coleman and Vaughn (2000) highlighted the need for embedded instructional management procedures and motivators

to help youth regulate their attention and behavior as well as actively engage during instruction. When youth engagement is high, youth are much less likely to exhibit inappropriate behaviors. This finding aligns with that of Nelson, Benner, and Gonzalez (2003) who used meta-analytic techniques to examine learner characteristics that predict responsiveness to explicit reading instruction. Problem behavior (Zr = .46), including inattention and disruptive behavior, was the second strongest predictor of responsiveness to effective reading interventions. Interestingly, problem behaviors were more influential than phonological awareness, alphabetic principle, memory, IQ, and demographic variables (e.g., ethnicity, sex, etc.) to responsiveness. In the remainder of this section, we provide a brief overview of several strategies to use within the positive behavior interventions and supports (PBIS) framework to keep youth with E/BD engaged in learning which are appropriate for restrictive settings and can be intensified across the tiers of prevention.

PBIS. Consistent with the core principles of MTSS, positive behavior intervention and supports (PBIS) uses a continuum of behavior interventions to understand and meet youth social, emotional, and behavioral needs. PBIS is a MTSS framework for behavior, establishing the social culture and behavioral supports needed for schools to be effective learning environments for all youth. A positive facility or school culture means is one that is predictable (i.e., common language, common understanding of expectations, common experience), positive (i.e., regular recognition for positive behavior), safe (i.e., violent and disruptive behavior is not tolerated), and consistent (adults are "on the same page" with behavioral expectations). PBIS holds particular promise for students with or at-risk for E/BD as a unified structure to (a) prevent the development of E/BD and (b) address existing instances.

*Clear expectations and consequences***.** First, clearly articulate and explicitly teach behavioral expectations for each instructional context. Consider the five SLANT expectations (**S**it up, **L**isten, **A**sk and Answer Questions, **N**od your head, **T**rack the speaker) during instructional time. Second, after teaching behavioral expectations for each instructional context, the teacher should walk the youth through the process she will use to help youth manage their own behavior if they are having a difficult time showing one or more SLANT expectations (Benner, Sanders, Nelson, & Ralston, in press). We suggest teaching all youth that if they have a difficult time with behavioral expectations, the staff will provide a non-verbal cue (e.g., proximity or make eye contact with youth and point to expectations poster on the wall). Staff should teach youth two non-verbal teacher behaviors they will

use and model their use during small group, whole class, and independent seat work activities.

Next, if the behavior of concern continues during the instructional context, staff should use a precision request, or short verbal statement to encourage the youth to exhibit on-task social behavior. For example, the teacher would walk by the youth and say, "SLANT Please" (or another short, positive, precision request) then walk away, keep teaching, and look to praise other youth engaged in learning (e.g., "Juan, you are a superstar listener today!"). Staff should be consistent with the phrase they say for a precision request and only say it once (without repetition) for each youth during the instructional context (e.g., small group work). However, it is likely that the teacher may need to provide another nonverbal followed by a precision request in the next instructional context (e.g., independent activity), particularly when instructing youth with E/BD. So, every time a new instructional context begins, youth get a fresh opportunity to manage their behavior. If the youth continues to have difficulty managing their behavior during the same instructional context, the teacher should move the youth nearer to her and keep instruction going. If the behavior continues, the teacher could use a strategy such as Think Time (Nelson & Carr, 2000). Think Time includes a reflective period away from the instructional setting for the student to gain self-control (i.e., thinking time) followed by a behavior debriefing process with an adult other than the one who sent the student to Think Time. Of course, if the student does not go to Think Time the teacher should continue teaching and calmly ask for assistance from security.

The concept underlying this approach for responding to behavior is elimination of coercive interactions between staff and youth with E/BD. These interactions depend upon multiple behavioral prompts, corrections, and warnings in response to problem behavior. Teaching youth the non-verbal, precision request, and using proximity will allow instructional momentum to continue and teacher attention to remain focused on youth learning. Staff should always remember to keep teaching and stay focused on youth learning during instruction, particularly when instructing youth with E/BD. A rigorous study using a randomized controlled trial design with students with externalizing E/BD has been conducted this PBIS approach to combining clear expectations and the system for responding to behavior during classroom instruction. Results revealed, that youth with externalizing E/BD in the treatment condition (n = 44) exhibited lower levels of problem behavior (*ES* = -.99) and higher rates of on-task behavior (*ES* = .61) compared to their counterparts in the control condition (n = 26) (Benner et al., in press). Treatment effects were stronger for youth

in schools with higher (i.e., more at-risk) levels of behavior problems, and for youth with relatively higher (i.e., more at-risk) problem behaviors.

Interdependent group contingency systems. We recommend two interdependent group contingency systems to increase engagement during instruction. The first approach is the *Good Behavior Game* (GBG), an evidence-based approach for peer reinforcement of positive behaviors during small group instruction, learning centers, or whole class instruction with k-12th grade youth with E/BD (Barrish, Saunders, & Wolf, 1969) which is applicable for restrictive settings. Youth are rewarded for displaying appropriate learning behaviors (e.g., SLANT) during facility-/school-wide PBIS instructional times. The class or group is divided into two or more teams and a point is given to a team for any inappropriate behavior displayed by one of its members. Thus, the contingencies are in effect for all team members but are applied for overall team performance (youth are interdependent). Teams whose point totals fall below a preset criterion win the game and the group reward.

Another approach is the *Effortful Engagement Strategy* (EES; Nelson et al., 2008). Much like GBG, the EES is an interdependent group contingency system between the teacher and one group of youth. It is used primarily in small group, one-on-one, or resource room contexts. Youth score five points each time staff notices any youth demonstrating the expectations (e.g., SLANT) during a facility-/school-wide PBIS instructional situation or youth are having success on lesson or activity tasks. The staff member receives five points each time youth exhibit behavior that is disruptive to learning. The staff member does not point out who is disrupting the lesson or give attention to the problem behavior. Staff use an easily accessible small white board (e.g., placed on lap or table in front of them) to make hash marks, which represent points, using a two column chart or T-Chart. One side of the T-Chart is labeled "Staff," and the other is labeled "Youth." This serves to redirect youth toward the expected behaviors without initiating coercive staff-youth interactions or power struggles over disruptive behavior during instructional situations. Staff tallies the points recorded for the youth and the staff at the end of the instructional session. Staff provides youth social recognition or administers the appropriate prize, privilege, or special activity if the youth wins the game. If staff wins the game, staff points out the behavior youth need to work on the next time, an opportunity for reteaching and clarification of the behavioral expectations.

Closing the Achievement Gap Using Multi-Tiered Academic Supports

Central to a multi-tiered prevention system, such as the PBIS framework, is accurate identification of the level of intensity of support necessary to meet youth needs. Universal screening data provide an understanding of what areas of mathematics, reading, written language, and behavior need improvement and the risk status (not, some, or at-risk) of each youth. Screening is the first step toward understanding the academic and behavioral needs of youth with E/BD. It is hard to overstate the importance of screening—without it staff may be frustrated and stressed when a youth with E/BD will not complete tasks that they are repeatedly asked to do. Tasks or activities that the youth is repeatedly asked to do could be at a frustration (too hard) or too easy (independent) level. Spending minimal time screening would provide staff with an understanding of youth academic and behavioral needs and prerequisite skills. To identify reliable and valid academic screening tools, the reader is encouraged to explore the National Center on Response to Intervention (NCRtI) Screening Tools Chart (*http://www.rti4success.org/screeningTools*).

We also recommend two diagnostic procedures for youth with E/BD prior to launching into explicit instruction. These two steps are important to determine whether the intervention or instruction will match the level of the youth. For academics, the first step is to conduct a survey level assessment, or broad-band assessment, to obtain a reading or math instructional level (Howell & Nolet, 2000). An example of survey level assessment in reading is collecting multiple reading samples across levels of difficulty until the instructional reading level of the youth is found. For a 6th grade student, the staff would begin by finding the median of three randomly selected 6th grade curriculum based measure (CBM) reading fluency passages. If the median falls in the frustration zone, the staff selects three randomly selected 5th grade CBM passages, administers them to the student, and computes the median words read correctly per minute. The staff continues this process until youth performance falls in the instructional zone, which is the reading level of the student. These data can be very helpful to adults who provide content area instruction. For example, they may not be aware that the youth may be reading several grade levels below their grade level. Rather than blame the youth for being unmotivated to complete grade level work that requires grade level reading comprehension, staff can support the youth in content courses and provide supplemental reading intervention.

The second step is the "can't do/won't do assessment" (VanDerHeyden & Witt, 2007), a quick and easy way to determine whether

a student's low performance is due to a skill deficit (can't do), a motivation deficit (won't do), or a combination of both. The "can't do/won't do assessment" is conducted with youth who do not perform in the instructional range on the survey level assessment or on universal screening (below 16th percentile on an academic screening assessment). This assessment takes about 5 minutes. The school psychologist or special educator who conducts the assessment offers the youth an opportunity to select a reward from a "treasure chest" contingent on "beating the score" from the screening assessment. Youth whose scores improve to the instructional range to earn an incentive illustrates that the youth can perform the skill given the right motivating conditions. In this case, the focus of instructional support is on work completion, or reinforcement (usually escape) contingent upon completing tasks that the youth is able to complete. The staff would monitor work completion and require that inadequate work be re-done at a time inconvenient for the youth (e.g., youth free time) while small privileges can be offered for correct work completion. Youth who are unable to improve their scores to the instructional range likely require more intensive and individualized instructional supports. The Utah Professional Development Center has can't do/won't do assessments (reading and math) available for free (*http://wiki.updc.org/groups/devin-healey/wiki/73c82/*).

Explicit Instruction: Essential to Close the Gap

Being an effective teacher requires use of instructional momentum techniques and the functions of explicit instructional lessons. The functions of explicit instruction should be used whether staff are teaching tier 1, tier 2, or tier 3 prevention within the MTSS model. Based on our experience, with few exceptions (e.g., Direct Instruction programs from SRA/McGraw-Hill; *http://www.sra.com/*), lessons in most core curriculum programs used by schools do not incorporate directly and consistently the functions of explicit instruction. In contrast, most evidence-based supplemental interventions designed to be delivered at the tier 2 and/or 3 levels include the functions of explicit instruction. The reader is encouraged to explore What Works Clearinghouse (*http://ies.ed.gov/ncee/wwc/*), , Best Evidence Encyclopedia (*http://www.bestevidence.org/*), and the National Center on Intensive Intervention (http://www.intensiveintervention.org/) for reviews of evidence-based programs in reading, math, language arts, and other content areas. These clearinghouses provide user-friendly summaries which allows consumers to select and compare the effectiveness of instructional programs and make informed decisions about what would work best with their population of youth, area of focus (e.g.,

reading, math), and school or community context (e.g., elementary, middle).

*Achieving instructional momentum***.** Research into effective teaching has shown that staff must achieve instructional momentum during lessons (Rosenshine & Stevens, 1986). The first element of instructional momentum is lesson pacing. Good lesson pacing gives youth the perception that the lesson or class is moving at the right speed. The second element of instructional momentum is effective transitions. Transitions are periods of time when staff direct youth to end one task or activity and begin another. Youth with E/BD benefit greatly from structured transitions (average of 15 a day in classrooms). Chaotic transitions are setting events for problem behavior. We strongly suggest staff have a clear, consistently used, explicitly taught attention signal (e.g., "Class, SLANT Please!") including a physical prompt (e.g., sweeping motion with right arm from left to right overhead) to garner youth attention quickly, give directions, and reduce transition time.

*Functions of an explicit instruction***.** The term teaching functions refers to the teaching behaviors that occur during lessons designed to move youth from lack of mastery to mastery. Researchers found that youth achieved more when staff emphasized five teaching functions during lessons (e.g., Rosenshine & Stevens, 1986): (a) daily review and prerequisite skill check, (b) teaching of new content, (c) guided youth practice, (d) independent youth practice, and (e) weekly and monthly reviews. Researchers have found that these five teaching functions accounted for 22% and 18% of the variance in the gains in basic reading skills and passage comprehension, respectively, of middle school youth with reading difficulties (Benner, Nelson, Stage, & Ralston, 2011). In other words, these teaching functions made a significant difference in youth responsiveness to secondary and tertiary prevention of reading difficulties (tiers II/III).

The first function in explicit instructional lessons includes two activities: daily review and prerequisite skill check. Daily reviews provide a clear indicator of the extent to which youth have mastered the previously learned content. After the review, staff should determine if youth have the prerequisite skills necessary to master the new content.

The second function in explicit instructional lessons is the teaching of new content. The goal is to provide explicit instruction that allows the youth to gain mastery of the new content and avoid remedial instruction. Effective staff present relatively small amounts of content at a time and they ensure each concept is mastered by youth before they introduce the next. Staff should present new information

by giving a series of short presentations with many examples. The examples make the learning concrete and help youth to understand the new information. Effective staff spend around 50% to 60% of a lesson teaching new content through demonstrations, discussions, and lectures; whereas, the least effective staff spend approximately 25% per lesson on the same activities (Evertson, Emmer, & Brophy, 1980).

The third function in explicit instructional lessons is guided practice and is designed to bridge the gap between the introduction of new content and independent practice. This function in the explicit instructional lesson allows youth to practice the content they learned under staff supervision to prevent the development of consistent error patterns. The guided practice should be designed to practice the new content and re-teaching the content immediately if errors occur. Youth demonstrate their understanding of the content when they experience high rates of success without prompting or modeling by the staff. Although there is no set standard, youth success rate should be 80% or higher before moving onto independent practice.

The fourth function in explicit instructional lessons is independent practice. Independent practice is designed to help youth consolidate their mastery of the content. Regardless of the type of practice, it is important for youth to understand the purpose for practice. Youth should achieve a 95% or higher success rate.

The fifth function in explicit instruction lessons includes weekly and monthly reviews of the content that has been taught. Approximately 15-20% of instruction time each week should be devoted to weekly and monthly review. The regular review of content ensures that the content is not forgotten and supports the mastery to automaticity principle. Weekly mastery tests are one way staff can conduct weekly reviews. These tests not only provide youth an opportunity to practice, but enable the staff to measure youth progress and identify the amount of content being retained.

Intensive language intervention. Up to 90% of youth with E/BD have concomitant language ability deficits that worsen over time and negatively influence their academic performance (e.g., Goran & Gage, 2011). Benner, Mattison, Nelson, and Ralston (2009) found that nearly two out of three youth with E/BD experienced a language disorder. Successful language acquisition is a prerequisite for successful reading acquisition and academic success (Catts, Adolf, & Ellis Weismer, 2006). Thus, the most appropriate tertiary (tier III) academic intervention for a youth with E/BD may actually be one that targets foundational language skills. In their best evidence, synthesis of the reading intervention literature on youth with E/BD, Benner et al. (2010) concluded that supplementing primary prevention (tier I) or core

instruction with well-targeted supplemental phonological awareness interventions is supported by high-quality replicated research (e.g., Lane, Fletcher, Carter, Dejud, & DeLorenzo, 2007). These supplementary interventions took place early in the children's schooling (i.e., K-1) and focused on identifying, manipulating and producing sounds. Youth with or at-risk of E/BD need early intervention focused on phonologic and other language abilities.

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Voices from the Field: Stakeholder Perspectives on PBIS Implementation in Alternative Educational Settings

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Abstract

The positive behavior interventions and supports (PBIS) framework is currently implemented in over 18,000 schools in the United States. Schools implementing PBIS with fidelity report school level benefits including decreases in problem behavior, increases in academic engaged time, and improved perceptions of school safety. While potential benefits exist for alternative educational (AE) settings such as AE schools, residential and juvenile justice (JJ) facilities, there are relatively few examples of implementation in these settings. This pilot sought to expand the understanding of PBIS implementation in alternative settings through a series of exploratory interviews conducted with administrators and PBIS team members in different AE settings. The interviews revealed a pattern of core themes characterizing the settings, personnel behavior, policies, and operating procedures serving as facilitators and barriers to implementation of the PBIS framework. These core themes are described in detail as a means to (a) inform the field about the implementation of the PBIS framework in AE settings, and (b) provide guidance for personnel implementing PBIS in AE settings.

Alternative educational (AE) settings are designed to address the academic, social, emotional, and behavioral needs of youth that cannot be reasonably met within the general public school (Aron, 2006). Youth who are enrolled in AE settings are considered at risk for educational and/or community failure, and often display a range of

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behaviors incongruent with public school settings (e.g., drug use, delinquency, mental health problems; Jolivette, Stichter, Nelson, Scott, & Liaupsin, 1999). AE settings can include alternative schools, residential programs, and juvenile justice (JJ) facilities (Sedlak &McPherson, 2010). The US Department of Education National Center for Education Statistics reported an AE enrollment of 87,200 youth in 2008 (Carver, Lewis, & Tice, 2010) with 70,792 youth in residential placements including JJ and psychiatric facilities (OJJDP, 2011).

Characteristics of Youth in Alternative Education Settings

Children and youth who receive services in AE settings have significantly higher rates of educational disabilities, mental health disorders, and patterns of antisocial behavior than youth in public schools. An estimated 33% to 75% of youth in AE settings display behaviors consistent with emotional and behavioral disabilities (Duncan, Forness, & Hartsough, 1995; NCES, 2001) with 65% to 70% of youth in the JJ system meeting criteria for a mental health condition (Skowyra & Cocozza, 2006). Youth in JJ settings have serious academic deficits, regardless of disability status, and may be several years behind peers across academic areas (Archwamety & Katsiyannis, 2000; Leone, Krezmien, Mason, & Meisel, 2005).

Alternative Education settings may be the last option to provide interventions and build prosocial skills for youth who have proportionately higher levels of deficit and disability than their public school peers. These settings can potentially provide intensive rehabilitative supports through evidence-based practices with a short term goal of reducing the impact of the youths' disabilities and deficits and a long term goal of providing the skills necessary to be successful in school, at work and in the community (Keith & McCray, 2002; Seltzer, 2004).

Effective Rehabilitation Models within Alternative Settings

To successfully address the range of youth needs in AE settings, effective rehabilitation models are necessary. Lipsey (2009) documented characteristic of effective models based on a meta-analysis of rehabilitative models for youth. He found *systematic alignment and integration* of services, policies, and resources within the facility increased access to individualized interventions (e.g., counseling, behavioral programs, restitution, probation, employment, vocational and academic programs; Lipsey, 2009). Comprehensive, aligned services effectively reduced delinquency and by extension recidivism (Lipsey, 2009). A systems perspective has been broadly evident

in other disciplines (e.g., medicine, public health, business; Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005). Leaders in school mental health promote systems alignment as critical to collaborative school and community partnerships (Weist, Paternite, & Adlesheim, 2005) and the medical field has long supported a "continuity of care" model merging systems for service delivery, accessibility, relationship base, and individualized care (Joyce et al., 2004).

Systematic alignment is the explicit development of organizational components (e.g., staff development, resources, and policies) necessary to support staff members in carrying out the daily practices necessary to meet organizational goals (Latham, 1988; Sugai et al., 2000; Zins & Ponte, 1990). An organization that has effectively adopted a systems approach has three basic features: (1) common vision (mission, purpose, or goal that is endorsed by a majority of the members); (2) common language (efficient communication of: organizational vision, day to day activities, and operations); and (3) common experience (defined actions, routines, procedures, and policies practiced and experienced by all members) (Horner, 2003).

Systematic Framework for Evidence Based Practices: PBIS

Positive behavior interventions and supports (PBIS) is a systems framework initially developed for the field of education that maximizes alignment of resources, practices, and data within the school setting (Sugai et al., 2010). PBIS is a data driven platform for implementation of multiple tiers of evidence-based practices to meet the academic, social, and behavioral needs of the youth in a given setting. Within the PBIS framework, all components of an organization are systematically aligned, increasing the likelihood that evidence-based practices can be delivered efficiently and effectively to *all* youth within a school or facility (Sugai et al., 2010).

Researchers have documented a wide range of student and organizational benefits associated with PBIS in general education schools. Outcomes reported by the more than 18,270 PBIS elementary, middle, and high schools across the U. S. (www.PBIS.org) include (a) reduced office discipline referrals, (b) increased instructional time, and (c) improved academic performance, including longitudinal benefits (Algozzine, Putnam, & Horner, 2010; Scott & Barrett, 2004). Researchers have also documented reduced perception of school risk factors by adults (Horner et al., 2009) and improved organizational health (Bradshaw, Koth, Thornton, & Leaf, 2009). Randomized control trials confirm that implementation of the PBIS framework with fidelity positively impacts student outcomes (Bradshaw, Mitchell, & Leaf, 2010).

PBIS Implementation in Alternative Settings

Some AE settings are successfully adopting the PBIS framework. A 2012 report from National Evaluation and Technical Assistance Center for Children and Youth Who Are Neglected, Delinquent, or At-Risk (NDTAC) identified Alabama, California, Georgia, Idaho, Illinois, Iowa, New Mexico, North Carolina, Texas, and Washington as states with PBIS implementation in JJ facilities (Read & Lampron, 2012). Documentation from the School-Wide Information System (SWIS) a discipline data system often utilized as part of the PBIS framework identified 343 AE settings as PBIS sites (R. Horner, personal communication). This number represents less than 2% of all settings implementing PBIS. In 2010, Simonsen, Britton, and Young completed a case study on implementation of PBIS in AE making special note of the *lack* of research, and exemplars of PBIS in AE settings (Simonsen, Britton, & Young, 2010. The high rates of risk characteristics of youth in AE settings would suggest that the benefits associated with PBIS implementation may be *more* necessary in AE settings. To expand implementation, documented examples and feedback from stakeholders are needed to guide practitioners, researchers, and state level policy makers. The purpose of this article is to examine the process of implementing the PBIS framework within AE settings from the perspective of key stakeholders.

Method

Setting and Participants

For this pilot study, the authors conducted ten interviews with participants from two AE schools, a residential facility, and two JJ facilities currently implementing PBIS (see Table 1). Schools/facilities were representative of various regions of the United States, including: Mid-Atlantic, Southeastern, Mid-West, Pacific Northwest and West Coast. The schools/facilities varied in the ages/grades of youth served as well as number of years of implementation, ranging from 1 to 15 years. Participants were members (one administrator, one team member) of the PBIS leadership team for each of the participating schools/facilities. In addition to the administrators, team members included a school psychologist, two teachers, and two PBIS coordinators with number of years of service at their school/facility, ranging from 1 to 16 years. The number of participants and facilities was kept relatively low characteristic of a pilot study.

Procedures

Recruitment and consent procedures. Prior to conducting interviews, authors contacted personnel at six schools/facilities currently

Table 1
Participant Characteristics

School/Facility				Participants		
	Regions	Number of Years PBIS Implementation	Grade Levels (Ages) Served	Role	Number of Years at Facility	Highest Degree Earned
AE1	Midatlantic	15	K – 12 (6-21)	Administrator	15	Doctorate
				School Psychologist	16	Doctorate
AE2	Pacific North-west	3	10-12 (14-21)	Administrator	8 ½	Masters
				Teacher	3	Masters
RES	Southeast	6	K – 12 (6-21)	Administrator	8	Doctorate
				Teacher	4	Bachelors
JJ1	West coast	1	6 – 12 (12-19)	Administrator	4	Bachelors
				PBIS Coordinator	1	Masters
JJ2	Mid-west	6	7 – 12 (13-20)	Administrator	5 ½	Masters
				PBIS Coordinator	6	Masters

Note: AE=Alternative Educational School, RES=Residential Facility, JJ=Juvenile Justice Facility

implementing PBIS (AE, residential and JJ) through either email or phone. Two of each type of school/facility were targeted for participation. Only one residential facility responded to invitations to participate. Administrators at the five AE settings verbally agreed to participate, and shared contact information for a team member who also was willing to be a part of the study. Consent documents were sent to both participants via email. Once consent documents were returned a phone interview was conducted.

Interview procedures. All interviews were conducted individually over the phone and recorded using digital recording devices. Interviews consisted of fourteen pre-determined questions regarding various aspects of PBIS implementation including (a) initiatives in place addressing youth behavior, (b) implementation of practices for teaching and providing consequences, (c) any potential barriers to implementation of practices for teaching and providing consequences, and (d) perceptions around supporting positive youth behaviors.

Transcription and coding procedures. An author or research assistant transcribed completed interviews. Two researchers independently coded each individual transcription using the Constant Comparative Method (Glaser & Strauss, 1967; Strauss & Corbin, 1990) for core themes that reflected the PBIS framework (e.g., data review) or an organizational characteristic, (e.g., consistent staffing). Core themes were classified as implementation barriers or facilitators.

Definitions. A facilitator was defined as a practice, policy, or characteristic of the organization that functioned to increase or improve adoption of the PBIS framework (Sugai et al., 2010). An example of language indicating a facilitator is as follows, "the system that we have in place *is pretty easy* and it runs itself, so it's not that time consuming. . . . It is second nature to us." A barrier was defined as a practice, policy, or characteristic of the organization or personnel that hindered implementation of the PBIS framework (Sugai et al., 2010). An example of language indicating a barrier is as follows, "my *time has been so limited*. . . . So, it has been *very difficult* for me to do staff recognition."

Results

The analysis produced five interconnected core themes classified as facilitator and four themes categorized as barriers (see Table 2). Responses from interviewees are written as they were spoken with additional details in brackets as necessary for clarity.

Facilitators

The five facilitating themes were identified as: (1) evidence based-instructional practices, (2) active support of teachers and staff members, (3) positive response to youth behavior, (4) prioritized data

Table 2
Facilitator and Barriers Themes and Examples

Theme	Examples
	Facilitators
Instructional practices	• Explicit connection of academic and social behaviors • Multiple opportunities across the day and/or settings to teach and practice social skills • Teachers modeling expected behaviors • Social skill lessons based on youth need
Active support of teachers and staff	• Repeated, ongoing training for all staff • Teacher involvement in developing PBIS processes and practices • Peer support / mentoring for teachers • Acknowledging adult staff behaviors • Administrative commitment • Consistent staffing
Positive response to appropriate youth behavior	• Specific praise in response to appropriate behaviors by youth • Point card / frequency count to track appropriate behaviors
Prioritized data practices	• Multiple sources of data for decision-making • Data collected on specific behaviors for planning/intervention development • Reviewing and sharing data
Multi-tiered response to problem behavior	• Multi-tiered approach • Teaching opportunity • Restorative justice approach (making amends)
	Barriers
Lack of staff buy in (10)	• Resistance to change in systems and practices • Low expectations • Staff Turnover
Punishment as response to problem behavior (12)	• Punishment as first response to problem behavior • Punishment considered most effective tool • Lack of multi-tiered response • Behavior support personnel employed by outside agencies, not staff
Systems Needs (21)	• Limited staff or other resources • Lack of training • Sparse communication • Reinforcement systems too complicated • PBIS in place within one part of facility only (school side) • Competing initiatives • Incomplete data for decision-making (lack of data systems/ collection)
Youth Characteristics (4)	• High youth turnover rate • Intensity and range of youth skill deficits and characteristics

practices, and (5) multi-tiered organization of responses to youth problem behavior. Each theme is described below including quotes from interviewees.

Instructional practices. All interviewees reported the use of evidence-based instructional practices, or evidence-based kernels (Embry & Biglan, 2008) to teach, prompt, and practice prosocial behaviors, including school-wide behavioral expectations. Interviewees reported multiple opportunities to practice social skills within daily activities and with various staff members, including teachers modeling expected behaviors. An administrator reported, "We as the role models walk the walk and talk the talk." A school psychologist reported developing facility-wide social skills lessons based on demonstrated need as documented by facility-wide or unit-wide data. Interviewees frequently reported the interconnection of academic and social behaviors as "common" knowledge among teachers and staff alike.

One administrator stated that a strong commitment to academic intervention had a positive impact on social behaviors, "The one intervention that had the most dramatic impact on student behavior was a school-wide academic intervention. . . . We routinely trained our new teachers in those academic strategies and that has had a tremendous overall positive impact on the level of misbehavior in the building." Another team leader stated, "Essentially what we're doing is creating errorless learning. We're telling students exactly what they need to do to succeed and then at the end of class, we review how well they did in terms of those expectations." To ensure mastery of social skills, interviewees reported high rates of practices on a daily basis. An administrator reported, "They [students] have 14 periods per day, that's two renditions of the school-wide procedures per every class. That's 28 per day times 180 days, that's 5,040 times and that doesn't include the all-school activities and etc. that we do throughout the year." There was a clear theme of supporting prosocial behaviors, through instructional practices, as a way to maintain academic engagement.

Active support of teachers and staff. Interviewees overwhelmingly reported the importance of ongoing support of teachers and staff members in daily PBIS practices. All interviewees commented on this theme numerous times in the form of mentoring, active and ongoing training, and administrative support. A psychologist reported assigning mentors for every new teacher, "So no one is ever in the dark." Regular training was identified for supporting fluency building across staff members. An internal PBIS coach stated, "People are trained repeatedly on the basics and to the point where when the teachers come through the program, it's just a part of their repertoire. It's not

a technique anymore; it's just the way they do business." Administrative interviewees also commented on the importance of reinforcing staff behavior, "What we expect the staff to do with our kids—we are certainly going (as administration) to have to do with our staff," and "when the kids earn stars, staff write their name on the back and we pick them from a hat and then the staff gets like a gift card, so little things like that that we do for the staff really do help." Reinforcing and supporting staff worked so well for some interviewees that one team leader reported, "It is almost self-reinforcing."

Positive response to prosocial youth behavior. All ten interviewees reported the importance of a wide repertoire of positive responses to prosocial youth behavior. Administrators in particular spoke about their explicit, systematic efforts to "decrease the use of punishers such as seclusion or restraint" stating, "A lot of it is a part of the climate. This is how we operate. . . . We encourage the teacher to verbally acknowledge positive behavior and build that rapport with the youth." In addition, all interviewees spoke about the importance of providing multiple opportunities across the day to "catch" youth engaged in appropriate behaviors, "The whole day is wrapped into earning those extra points" and "even a minor thing that a kid is doing right—let's praise him for it." Positive reinforcement in many of the facilities was systematically organized across all settings to increase access to reinforcement. A teacher reported, "We have 'caught you being good tickets' that are handed out in the hallway if the youth is showing the appropriate behavior." Also, "Teachers also give out 'caught you being good' tickets in the classroom. On a weekly basis we draw anywhere from 20-30 names [for rewards]."

Prioritized data practices. Prioritizing data practices (e.g. regular review, use, and sharing) was a theme in eight of ten of the interviews. Interviewees reported a comprehensive use of data at the facility, teacher, classrooms, non-classrooms, and individual youth levels. All administrators reported prioritized data meetings a minimum of once per month, with several designating a separate team responsible for organizing and sharing data with the staff at large. Additionally, interviewees reported collecting "a wealth of information" across multiple domains (e.g., academic, social, mental health, risk ratings) at the facility-wide and individual youth level. An administrator stated, "We look at our suspension rates. We look at our rates of restraints to the amount of time police come in the building. We look at all kinds of different variables." One administrator reported the use of data for modifying individual youth plans, "There are decision rules in place, we can watch a child's progress across time and if certain criteria are met, we automatically convene a staffing."

Multi-tiered response to problem behaviors. The last facilitator theme, coded in six interviews, is the systematic response to youth problem behavior. Interviewees reported a multi-tiered response to problem behaviors spanning universal supports to individualized plans. One administrator said, "We have individualized programs for students who do not thrive under school-wide or class-wide interventions." Additional tiered supports included the use of facility-wide and classroom/living-unit-wide reinforcement plans, behavior point sheets, check-in check-out, functional behavior assessments, and wraparound systems of care. Supports spanned beyond facilities to additional outside agencies that functioned as "safety nets" such as community clinicians, social services, or youth court as reflected in comment by an administrator, "We involve outside agencies. We involve therapists, psychiatrists, counselors, chaplains, staff . . . whomever we can get to work with us to help that youth turn their behavior around."

Barriers. Four barrier-type themes were identified through the coding process (see Table 2): (1) lack of staff member buy-in, (2) punishment as response to problem behavior, (3) system's needs, and (4) youth characteristics.

Lack of staff buy-in. Eight of ten interviewees commented on *lack* of staff buy-in as a barrier to implementation. Comments were made specifically to the difficulty in garnering staff engagement in the daily practices of PBIS such as distributing acknowledgements and/or rewards. A teacher, noted, "Sometimes my expectations are that kids should just behave and be expected to behave or we should all behave in a certain way, just because that is the way it should be." This perspective applied to expectations for staff members, illustrated by comments such as "Why should we praise a kid or why should I receive praise in my job for doing what I'm paid to do or what I'm expected to do?" Interviewees reported that the focus on what youth "should do" impacted continuity and integrity of intervention delivery. For example one teacher shared, "Other security staff that will basically go, 'Get in there and do your work!' and not really work with the program." For some facilities, lack of staff buy-in had resulted in PBIS implementation *only* in the school setting and not facility-wide.

Punishment as response to problem behavior. Closely related to lack of staff-buy in is a culture in which punishment is seen as the first and most effective response to problem behavior. Many of the interviewees (seven of ten) described multiple tiers of *punishment* including loss of point card points, loss of privileges, removal from a classroom (or

living unit, cafeteria), detention type punishment, arrest (for youth in AE schools or residential facilities), and seclusion and restraint. Interviewees stated the need for the PBIS team to actively address the culture of punishment. As one administrator summarized, "We certainly need to overcome the idea of . . . you are here to be punished" and "the staff attitude of 'these kids do not deserve anything.' That is always a tough one to try and convince them otherwise."

System needs. Most of the barriers were classified as system needs with nine out of ten interviewees commenting on lack of comprehensive systems to support staff. The most frequently acknowledged need was inconsistent or absent staff acknowledgement. Other comments reflected on a lack of data tools (for organization and/or sharing), a lack of common planning time, both viewed as detriments to providing cohesive supports for youth. Additionally, interviewees mentioned the lack of systems for (1) staff training, (2) prioritizing resource allocation, (3) merging initiatives, and (4) managing collaboration with outside agencies. Interviewees also spoke about the difficulties of establishing communication systems, as different shifts/roles within the facilities are sometimes "run by different agencies."

A lack of systems also was reported to impact the quality of youth supports. One administrator spoke to inadequacies of the acknowledgement system, "Our rewards are clunky or take too long. . . . A kid has got to be here for a long time, behaving well every single day before he can even hit level five (and be eligible for reinforcers)." Interviewees blamed a lack of systems for inconsistent implementation. For example, one PBIS coordinator stated, "The living unit has their own separate point system, which unfortunately works backwards from ours. They actually take points away from boys and we actually give them their points."

Youth characteristics. The last barrier theme was the intensity and diversity of youth characteristics within the participating AE settings. Interviewees commented on the difficulty of working with youth with intense needs in multiple life domains. One teacher stated, "We do work with a group of kids that sometimes seems hopeless and I think that the teachers feel sometimes that they are spinning their wheels." An administrator summarized how perceptions of youth characteristics impacted supports, "I'll hear things such as, 'Well they come from this part of the neighborhood,' 'Well, they come from poverty,' 'Well, their parents are drug addicts,' 'Well, they don't care about school,' 'They don't value academics,' 'They've got a psychiatric diagnoses,' all these attributions. But you'll never hear anyone say, 'Well, maybe we could be doing a better job at what we're doing here.' "

Discussion

A vast majority of facilitator examples focused on the implementation of systems directly supporting staff members in day to day promotion of prosocial behaviors among youth. Interviewees highlighted instructional strategies implemented to build fluency in prosocial skills across AE settings. The approach of teaching prosocial behavior in the same manner as academic content by utilizing "best" practices in instruction was a common approach noted throughout the interviews, and one supported in the field of education (Algozzine et al., 2010) and noted by many of the interviewees reported as critical for supporting prosocial behaviors. Ample opportunities to respond (Sutherland, Adler, & Gunter, 2003) and universal design principles (Sutherland et al., 2003) were maintained in facilities as crucial to fluency building. Interviewees frequently commented on the continuum of positive staff responses to prosocial youth behavior, in opposition to punishment based consequences, as complimentary to an instruction-based approach. Interviewee comments conveyed a commitment to increased density of reinforcement for prosocial behaviors promoting skill maintenance (Cooper, Heron, & Heward, 2007). All facilitators identified, were explicitly systematic and routine. Resources, time, data and policies were aligned to support staff and youth behaviors, often in a multi-tiered approach, promoting social, academic, and therapeutic successes.

Interviewees consistently identified a lack of systems supporting staff member behaviors (e.g., policies, practices, resources, and routines) as the major barrier. Implementation scientists cite the importance of systems in promoting fidelity and sustainability of practices (Fixsen et al., 2005). Without explicit administrative and organizational supports staff members may be reticent or under-skilled to engage in daily implementation practices especially if staff members perceive youth characteristics as unchangeable, and highly negative. Negative perceptions of youths' abilities, disabilities, potential, and "worth" were reported as the prevailing barrier for lack of staff buy-in. Interviewees highlighted numerous factors associated with the causes of youth problem behavior, with specific emphasis on factors within the youth and not associated with the environment of the AE setting, failing to explore the potential of environmental factors influencing behaviors. The focus on what is "wrong" with youth orients staff and youth attention on antisocial behaviors, instead of the prosocial behaviors necessary for rehabilitation. An overreliance on punishment has shown evidence for increasing problem behaviors instead of resolving them (Gottfredson, 1987).

Limitations and Implications for Research

A limitation of this pilot was the relatively low number (10) of interviews conducted from a convenience sample of administrators, teachers, PBIS coaches, and counselors with limited perspective in favor of adopting the PBIS framework. Second, the qualitative approach was warranted, given the nascent stage of PBIS implementation in AE settings, but identification of facilitators and barriers does not quantify "successful" versus "unsuccessful" implementation. A larger number of surveys may provide more evidence that the facilitators and barriers are not unique to the participating facilities. Increased feedback on facilitator and barrier characteristics would allow for multi-level analyses of fidelity and youth outcome data in relationship to those facilitators and barriers. A more thorough investigation of PBIS implementation in AE settings also would evaluate fidelity, youth outcomes (e.g., incident reports, transition plan goal attainment, credit recovery, and recidivism), and longitudinal successes, as well as recidivism.

Conclusion

Youth in AE settings have typically demonstrated need for remediation and supports beyond the scope of the public school setting (Aron, 2006). Alternative education settings provide the potential to match evidence-based practices with these needs in an intense, closely monitored manner. Implementing evidence-based practices may be achieved more fluently through the framework of PBIS, an assertion supported by a host of quasi and experimental studies (Algozzine et al., 2010; Horner et al., 2009; Bradshaw et al., 2010; Scott & Barrett, 2004). Implementation in AE settings, to maximally support our most vulnerable youth is an important and necessary direction for the field. This article summarizes core barrier and facilitative themes as reported by key personnel in AE environments. The feedback of these stakeholders are relevant for expanded implementation and serve as a starting point for more intense investigations of PBIS implementation in AE settings.

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Three-Tiered Support for Students with E/BD: Highlights of the Universal Tier

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Abstract

The scant data available suggest there is a critical need for improving service delivery within alternative education (AE) settings for children and youth with emotional and behavioral disorders (E/BD). A promising approach for improving student outcomes in AE settings is school-wide positive behavior interventions and supports (SWPBIS), an approach that has been used successfully in many typical school environments. This case study describes school-wide practices and structures that were instituted and sustained at Centennial School of Lehigh University for the past 15 years and highlights those practices and structures associated with the universal tier. Longitudinal data are shared that illustrate the effectiveness of the practices over time positively affecting the outcomes of youth with E/BD.

Students with emotional and behavioral disorders (E/BD) are frequently served in separate educational environments because their behaviors often interfere with the learning of others. The U.S. Department of Education (2010) recently estimated there are now over 10,000 alternative schools in the country, considerably more than the estimated 460 similar schools of 30 years ago (Wells, 1993). This suggests that more students are served in alternative education (AE) settings than ever before (Quinn & Poirier, 2006). For many students, placement in AE settings represents one last chance for acquiring meaningful help. One would therefore hope that AE settings could do a better job at assisting youth at-risk of school failure than the

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traditional public schools. But all too often that is not the case. Students placed in AE settings do not necessarily thrive academically (Lane, Wehby, Little, & Cooley, 2005) and their behavior problems often remain unresolved (Bender & Losel, 1997). Moreover, when state directors of special education were asked to identify excellent programs for students with E/BD within their states, 40% of them could not identify a single example (Hilt-Panahon, Kokina, & Kern, 2008). The dearth of program exemplars for others to emulate poses potential problems for the future development and propagation of well-designed program models for students with E/BD. It would seem that alternative school services for children and youth with E/BD are in need of improvement.

School-wide Positive Behavior Support

A promising approach for improving student outcomes within AE settings is school-wide positive behavior interventions and support (SWPBIS), an approach that has been used successfully in many typical school environments (Simonsen, Britton, & Young, 2012). SWPBIS is a three-tiered prevention and intervention model designed to "promote positive school cultures and prevent problem behaviors in school settings" (Dunlap, Ostryn, & Fox, 2011, p. 3; Sugai et al., 2002). Preliminary evidence from two descriptive case studies suggests that interventions paralleling SWPBIS in AE settings were successful for decreasing problem behaviors and accelerating appropriate behaviors among students with some of the most significant and challenging needs (Miller, George, & Fogt, 2005; Simonsen et al., 2012). The purpose of this article is to add to the body of literature on SWPBIS in AE settings, by richly describing multi-year SWPBIS implementation and practices including longitudinal data to demonstrate how SWPBIS implementation continues to result in positive youth outcomes.

Centennial School of Lehigh University

Centennial School is a private AE school, approved and funded by the Commonwealth of Pennsylvania and governed by Lehigh University. The school serves students ages 6 through 21, classified with emotional disturbance and autism under the *Individuals with Disabilities Education Improvement Act* (IDEA, 2004). Local school district teams refer students to Centennial School by way of the individual educational program (IEP) process usually after a determination is made that their needs have not been adequately met in previous placements, which may include local school districts, Intermediate Units (i.e., education agencies that provide special education services for multiple school districts, usually with low-incidence disability

categories), residential treatment facilities, and hospitals. Centennial School serves about 100 students and their families during the course of a school year. The ethnic profile of the student body reflects the surrounding community at large; the majority of students are Caucasian with approximately 13% African-American and 11% Hispanic American. During the 2012-2013 academic year, about 42% of the students received free and reduced lunch, although in past years the percentage has at times exceeded 80%. To date, every student admitted to the program has scored in the first percentile on teacher-rated standardized behavior rating scales, indicating significant internalizing and externalizing behavior problems.

The school operates programs at three levels: elementary, middle, and high school. The elementary program consists of four classrooms and serves students ranging in ages from 6 to 12 years old. The middle school program is comprised of three classrooms of students ranging in ages from 12 to 14 years old; and the high school program is comprised of students, ages 15-21, and consists of 4 academic classrooms, along with a transition to work classroom for students with post-secondary goals of competitive employment on their IEPs. The school has an academic focus. Students are taught at their instructional levels in accordance with State Curriculum Standards and modifications as listed in the IEP. Teachers use a variety of strategies to increase student engagement. Teamwork as well as a sense of community is emphasized through cooperative learning groups and social activities.

Centennial School also serves as a laboratory school for the College of Education at Lehigh University and helps prepare aspiring teachers to enter the profession of special education. Graduate students spend two years working full-time at the school while taking coursework in the evenings towards their Master's degrees. Lead teachers (teachers with master's degrees) operate the classrooms and supervise one or two teacher interns (teachers with bachelor's degrees and certification in special education who are seeking master's degrees) or teacher associates (those with bachelor's degrees in other fields who are seeking special education certification). Teachers also receive supervision from program coordinators who provide guidance and support, much like principals, assisting with student placement, scheduling, curriculum, and discipline. A director mentors and supervises the program coordinators and is responsible for the overall functioning of the school.

Centennial School employs the multi-tiered positive behavior interventions and supports (PBIS) framework. This includes schoolwide (tier I), class-wide (tier II), and individual (tier III) interventions

to prevent students from displaying continued or more problem behavior. The three tiers build upon and support one another; for example, the behavioral expectations for students are similar across the three tiers of intervention. The tiers are linked with a set of decision-rules that signal when it may be necessary and appropriate to move to the development of more intensive individual interventions. This article focuses primarily on the universal tier (tier I) and describes the practices and structures used to ensure that every student receives the preventative supports needed to succeed in school (Kern, 2005).

A distinguishing feature of Centennial's SWPBIS system is the positive nature of its interventions and its educational approach for teaching students the academic and social skills required for success in school and in life. The predominant use of SWPBIS is advantageous because it helps build rapport with students who have histories of poor adult relationships and failure in schools and it focuses teacher attention on appropriate student behaviors and the subsequent reinforcement of those behaviors rather than on misbehaviors and the use of punishment. With the introduction of SWPBIS and its emphasis on positive and proactive interventions, the school has virtually eliminated the use of reactive approaches such as physical restraint and seclusion time-out. Prior to the implementation of SWPBIS, 112 physical restraints were conducted during the first 20 days of the 1998-1999 school year. The number of physical restraints increased to 233 after 40 days of school (Miller et al., 2005). With the introduction of SWPBIS, the use of restraints declined to only one during the last 40 days of the school year and none during the final 20 days of the year. Compared to the prior year, the number of physical restraints declined by 69% (see Figure 1). Centennial School has sustained its use of a SWPBIS approach for the past 15 years and the primary features for both students and staff are described below.

Features of Centennial's SWPBIS System

Leadership Team

The director, assistant director, supervisor, two school psychologists, and a master teacher comprised the original leadership team. The composition of the leadership team has changed over the years but its purpose has remained the same: to establish a representative forum of school personnel with the authority for making program decisions to influence practices at the school. The team meets weekly, reviews and analyzes school-wide data, and monitors the current functioning of the school.

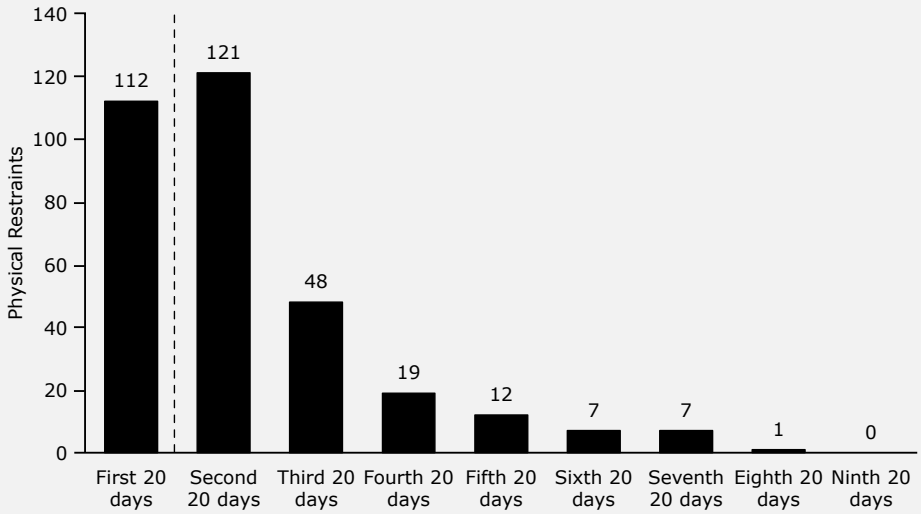

Figure 1. Number of physical restraints per 20-day reporting periods at Centennial School during the 1998-1999 school year. SWPBIS initiatives began after the first 20-day reporting period.

School-wide Expectations for Students

The "Take Five." The leadership team developed slogans to communicate the behavioral expectations, similar to the implementation of SWPBIS in general education settings. The Centennial School's "Take Five" program is modeled after the "High Five" program developed in Veneta, Oregon (Taylor-Green & Kartub, 2000). The Take Five expectations (Be There, Be Ready, Be Respectful, Be Responsible, Personal Space and Follow Directions) are operationally defined so that student expectations for behavior are clear across all settings in the school environment. For example, *Be Responsible in the hallway* is defined as "carrying a hall pass or having an adult escort at all times," whereas *Be Responsible in the gymnasium* is defined as "cooperating with teammates." The behavioral expectations provide a framework for teaching students appropriate behavior within a particular school setting and thereby serve as the foundation for social skills instruction. Instruction is explicit and conducted daily due to the intense emotional and behavioral needs of the students.

Like teachers in other SWPBIS schools, Centennial School teachers use a number of strategies for teaching the school-wide expectations. At the beginning of the school year, teachers videotape skits that

introduce students to the "Take Five" expectations across settings: classrooms, computer lab, kitchen, library, gymnasium, hallways, and school buses. On the first day of school, students carry *passports* and accompany classmates to the various locations to learn the expectations for each. In addition, students videotape themselves performing the expectations within the different settings.

Behavioral expectations are taught following an "I do, we do, you do" format and because many students with E/BD experience difficulty interpreting social cues, instruction is embedded throughout the curriculum. Students whose behavior conforms to school-wide expectations receive immediate and often public recognition. When students make social errors, teachers provide gentle, private reminders of alternative appropriate responses. School-wide expectations are reviewed as part of the daily lessons, and student performance relative to the expectations is evaluated (using a point sheet) at the end of the lesson. Over the course of the school year, the Take Five expectations are formally reviewed over 3,600 times for adolescent students and 5,000 times for elementary students.

Self-management strategies. In addition to teaching school-wide expectations, students are also taught strategies to manage their anger. Teachers help students identify the types of situations that trigger anger responses and generate ideas about alternative behaviors that could replace those behaviors when similar situations arise in the future. For some students, this type of self-management is a new skill. Thus, teachers often need to guide the process, and usually suggest strategies that have proven effective in the past for other students, such as raising one's hand to request help when they experience difficulty with an assignment. Another strategy that is commonly taught is *Taking Time*. This strategy allows students to request a brief break from a difficult assignment or other provocation. Students are taught to raise a hand to request the opportunity to take time. Teachers then provide permission for the student to briefly leave the frustrating situation, regain composure, and return to the situation to try again. The Taking Time strategy is taught and practiced during social skills instruction and students are initially encouraged to use the strategy when misbehavior appears to be escalating. Eventually, students are able to request taking time independently.

Problem solving. Problem solving is a process used in lieu of office disciplinary referrals commonly used in public schools, and like the Taking Time strategy is taught as part of the social skills curriculum. The purpose of problem solving is to teach students a simple yet effective process for managing conflicts encountered during the school day. The process is designed to minimize time spent out of the

classroom so instructional time is not lost. The Problem Solving Procedure consists of four steps: problem identification, prevention, action plan, and commitment (Fogt & Piripavel, 2002). Problem identification asks students to describe the problem behavior, the conditions under which it occurred (e.g., when, how, and with whom), and why it did not conform to classroom and school expectations. Students articulate replacement behaviors to avoid future occurrences the problem behavior in similar situations. Replacement behaviors are usually generated with teacher prompts and guidance (e.g., "What could you have done differently to signal the teacher that the work was too difficult?"). When alternative behaviors have been successfully identified, an action plan is created. The action plan explicates the alternative behaviors that will be used next time the situation arises (e.g., Next time I will raise my hand and ask for help.) The final step is commitment in which students agree to implement the plan they just helped to create. When the student is calm, committed to the plan and ready to re-enter class, the problem solving process is complete.

School-Wide Expectations for Faculty

Positive teacher talk. Researchers state that teacher language is a powerful tool for increasing compliance (Walker & Walker, 1991), promotes gains in academic and social behavior, and contributes to the development of students' self-control and sense of hope (Denton, 2008). Staff members at Centennial School are taught to use only positive and neutral statements throughout the school day.

Staff commands or instructions at Centennial School are brief and clearly stated directives, delivered one at a time with sufficient wait time to allow students the opportunity to comply. Staff do not attempt to coerce students, nor do they use sarcasm. Centennial staff practice the use of effective teacher commands and take data on the use of positive and neutral statements in the classroom (see Figure 2). Also, staff are encouraged and expected to speak respectfully about students, parents, and their fellow co-workers to contribute to a positive school climate.

Positive parent relationships. An additional school-wide expectation for faculty involves interactions with parents. Staff are encouraged to develop productive working relationships with parents and treat them as partners in the child's education. Staff contact parents daily via written home note or email with progress notes and weekly by phone to share academic and behavioral progress, highlight positive aspects of school performance, and provide reminders about homework assignments and upcoming school events. The small number of students on teachers' caseloads makes this possible.

Teacher:		Date of Observation:
Observer:		Class / Activity:
Starting Time:	Ending Time:	Support Staff:

Strengths of the observation:

-
-
-

	Positives	Take 5's	Neutrals	Negatives
Student 1:				
Student 2:				
Student 3:				
Student 4:				
Student 5:				
Student 6:				
Student 7:				
Student 8:				
Student 9:				
Student 10:				
TOTALS				

Examples:
Positive statement (general or specific) – "Caitie, nice job having a quiet raised hand."
Take 5 – Use a frequency count to record the number of Take 5 coupons issued to each student.
Neutral statement – "Please place your pencil in the holder on your desk after you finish writing your name and date on your paper."
Negative statement – "Stop calling out and interrupting the lesson, Kelly."

Figure 2. Teacher verbal behavior observation form.

Low-level misbehavior. Implementation of systematic procedures for managing low-level misbehaviors (e.g., call-outs, disrespectful vocalizations, playing with items in their desks, leaving seat or area) is another school-wide expectation for faculty. When confronted with low-level misbehavior, Centennial staff employ a sequence of interventions as a way to prevent low-level misbehavior from escalating to more serious forms of misbehavior. First, teachers use proximity to interrupt low-level misbehaviors. Second, the use of proximity is followed by the "good model" procedure to publicly praise students

who are performing the expected behavior to cue an appropriate response from the student who is misbehaving. Third, if the misbehavior persists, a private reminder is given to the student. The reminder describes the specific behavior needed to meet the behavioral expectation. Fourth, if necessary, the private reminder is followed by a private warning as to the consequences for continuous disruption (earning fewer points). Continuation of the misbehavior results in a private prompt to use a self-management strategy, such as Taking Time. Finally, if all of the above fail to engage the student in the lesson, the student is asked politely to proceed to problem solving.

School-wide Behavior Recognition System

Proficiency in the use of point sheets (evaluation, data collection, and progress note) is another expectation for all faculty. Point sheets list the Take Five expectations and the periods of the day, including opening, breaks, and lunch. Students earn points for meeting classroom and school expectations but do not lose them. They begin every class period with zero points (Fogt & Piripavel, 2002) and may earn up to a "2" for meeting each of the five expectations. Points are awarded at the end of class during brief private meetings with the teacher in an instructive and encouraging manner.

Tiered Academic Instruction

Research-based instructional practices that include matching curriculum to student functioning levels, systematic analyses of student error patterns, positive error correction, frequent feedback, multiple opportunities to respond, frequent praise, systematic progress monitoring, and a tenacious pursuit of mastery learning characterize the school's instructional delivery of academic curriculum. Due to the severe academic learning needs of the students the general education curriculum is modified for nearly every student. Common modifications include task-analysis of content, alterations to the length of assignments, small group instruction, one-to-one assistance, and peer tutoring. State-of-the-art technology including iPods, iPads, lap top computers, and Smart Boards is used to enhance the lesson quality and engage students.

Data-based Decision-making

Data-based decision-making is the cornerstone of SWPBIS. Progress monitoring probes are used as measures of academic growth. Curriculum based measurement probes are administered weekly in reading and bi-weekly in math. Data from the probes are entered into a web-based data management system and reviewed during weekly

program meetings. Graphs of reading and math performance are shared with students and parents.

Point sheet totals are used for tracking students' behavioral progress. Points earned are converted to percentages and entered into an Excel database. Teachers strive to achieve consistency with their colleagues when rating student behavior and collect inter-observer agreement data on point administration (see Figure 3).

Detailed Behavior Reports (DBRs) are a second method for tracking behavioral progress. DBRs are completed whenever students are directed to leave the classroom for problem solving due to persistent misbehavior. Similar to office discipline referrals common in general education settings, the DBR includes a description of the behavior, location, the environmental context (group work, individual work and other), immediate antecedents, as well as the perceived function of the behavior. DBR information is used during problem solving episodes and provides information for functional behavioral assessments.

Major misbehaviors (e.g., verbal threats, drug and alcohol possession, destruction of property, physical aggression, and possession of prohibited items such as weapons) are recorded and tracked as Incident Reports (IRs). Behaviors that lead to the completion of IRs may result in the team convening to review student progress and developing an individualized intervention. Analyses of IRs provide valuable information for all three tiers of intervention. For example, past analyses of IRs have served to identify improvements to the physical school setting (e.g., unsafe spaces in the building leading to new supervision patterns).

Data collected on other indices help monitor the overall quality of school functioning. For example, teachers and staff are anonymously surveyed annually on the quality of workplace conditions. Faculty also evaluate program supervisors related to organizational management, supervision, training and presentation skills, communication, and leadership.

Celebrations and Ceremonies

Celebrations and ceremonies are other school-wide features of the school. Student success is celebrated in a variety of ways. Awards and activities recognizing students and their families include Honor Roll celebrations for students with a minimum of a 3.2 grade point average, Student of the Week, Academic Achievement Awards, Parent Involvement Awards, Community Participation Awards, The Above and Beyond Awards, Homework Awards, Perfect Attendance, Model Employee (for secondary students), Teamwork, and Athletic Awards. Award ceremonies that recognize and celebrate student achievement are held weekly and are open to parents and other guests.

Teacher:	Date of Observation:
IOA Recorder:	Class / Activity:

Student 1:	Teacher	IOA Recorder	Notes:
Be There, Be Ready			
Be Responsible			
Be Respectful			
Keep Hands and Feet to Self			
Follow Directions			
Anger Management Strategy			

Student 2:	Teacher	IOA Recorder	Notes:
Be There, Be Ready			
Be Responsible			
Be Respectful			
Keep Hands and Feet to Self			
Follow Directions			
Anger Management Strategy			

Student 3:	Teacher	IOA Recorder	Notes:
Be There, Be Ready			
Be Responsible			
Be Respectful			
Keep Hands and Feet to Self			
Follow Directions			
Anger Management Strategy			

Student 4:	Teacher	IOA Recorder	Notes:
Be There, Be Ready			
Be Responsible			
Be Respectful			
Keep Hands and Feet to Self			
Follow Directions			
Anger Management Strategy			

Figure 3. Take 5 expectations interobserver agreement data form.

Similar to other schools that use SWPBIS, Spirit Days are interspersed throughout the year to boost motivation and effort and for fun. Spirit Days are strategically scheduled during time periods when minor misbehaviors tend to be most frequent, indicated by school-wide DBR data from the previous school year. A Spirit Day Committee schedules the Spirit Days and develops the themes. Past Spirit Days' themes included "Hat Day," "Crazy Clothes Day," "Halloween Costume Day," and "Sports Clothes Day." Other celebrations such as the annual Talent Show, Spring Carnival, and 5K Race and Walk are designed to bring parents and school staff together on behalf of the students.

Finally, Centennial School celebrates the annual graduation of its seniors with a formal ceremony at school. Although students may participate in the graduation ceremonies of their resident districts, Centennial also brings parents and extended families together to celebrate students' accomplishments and formally transition students to their futures. Guest speakers usually include professors from Lehigh University, former Centennial School teachers and supervisors, and school officials from resident school districts.

School-wide Structures that Sustain Implementation

School-wide structures are in place that support and ensure sustained implementation of SWPBIS with fidelity at the school. Structures such as an organizational flow-chart with channels of communication, career ladder for staff, mentoring programs, school committees, policy and procedures handbook, and frequent internal and external program evaluations were designed and created by the leadership team to meet the changing needs of the school. Three of the structures for sustaining implementation of SWPBIS are described below.

*Teaming***.** Teachers within each of the three programs (elementary, middle, high school) work in teams and share responsibilities for programming, monitoring, and evaluation of student progress by supporting one another during lesson implementation, conducting peer observations, and providing coverage when staff absences occur. The use of teacher teams (Giangreco, 2010) replaces a model for staffing classrooms that relied predominately on the use of one-on-one aides, mental health workers, and substitute teachers for staff absences. The move to teacher teams has proven helpful for maintaining program consistency, especially in the implementation of student behavior programs, a crucial element in the delivery of effective services for students with E/BD. Teachers meet together weekly to share knowledge about students' programs and progress.

*Professional development***.** Professional development is viewed as critical for preparing adept special educators and is a key element for sustainability (Coffey & Horner, 2012). In order to successfully implement new practices, school personnel need to understand the rationale for their use and have the skills to implement them with fidelity (Gersten & Dimino, 2001). Extensive professional development at the school is especially important given that many of the teachers are first year graduate students with little or no teaching experience. The aim of the Centennial professional development program is to prepare teachers in fundamental practices that support robust student academic growth and the development of pro-social school and

classroom behavior. Professional development is presented by lead teachers and program coordinators, and differentiated according to teacher knowledge and experience. Professional development activities are collaborative, active learning opportunities held weekly for two and a half hours, and cover SWPBIS as well as other topics of immediate relevance. Some of the topics addressed throughout the year include assessment; development and implementation of IEPs; lesson development and effective delivery of reading, math and writing instruction; effective teacher talk; point sheet administration; classroom management; data collection and decision making; conducting quality functional behavior assessments; the development of positive behavior support plans; and professionalism.

*Policy and procedures handbook***.** The *Centennial Policy and Procedures Handbook* is an additional component for sustaining implementation of SWPBIS and other program practices over time. The program handbook contains the agreements reached by the leadership team. It is revised annually based on teacher feedback regarding its usefulness, clarity, and alignment with current practice. Procedures shown to be useful and helpful on the basis of teacher social validity and student outcome data are retained in the policy and procedures handbook and become future school-wide expectations for the faculty. Moreover, topics included in the policy and procedures handbook become the basis for future professional development and a standard for teachers to aspire to in their professional performance. For example, many of the successful practices at the school (positive teacher talk, point sheet administration, and implementation of SWPBIS) serve as standards against which teachers' performances are evaluated.

Final Thoughts

The experiences at Centennial School demonstrate the usefulness of SWPBIS for restructuring alternative school environments that serve some of the most significantly involved children and youth among the school-age population. The implementation of SWPBIS at Centennial School helped transform a chaotic school environment to an environment where students now experience academic success, healthy social relationships, and enjoyment in learning. Each year heralds improvements to the school setting largely due to the practices and structures that were adopted by the leadership team using the SWPBIS principles. Longitudinal data show that the rate of physical restraints at the school has declined by 99%, compared to 15 years ago, and suspensions by 88% (see Figure 4). Police involvement is down by 95%. Truancy has declined by 64%. Seclusion timeout has been eliminated from the school setting.

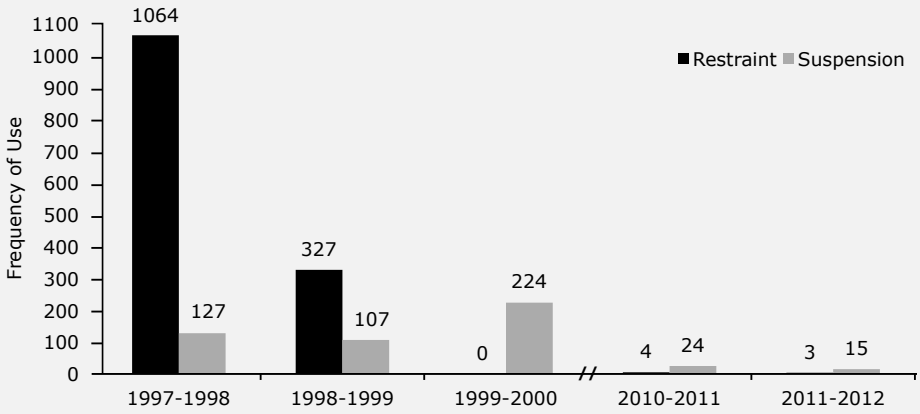

Figure 4. Physical restrains and suspensions at Centennial School prior to SWPBIS initiatives, and during the first two years and recent two years of implementation

The universal, tier I practices and structures outlined in this article are readily transferable to other alternative settings and may harbor the promise for similar outcomes. Clearly more research is needed in this important area. Future researchers should continue to explore the feasibility, social validity, and adaptation of SWPBIS in alternative school settings as a form of prevention.

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The Effects of Tier II Check-in/Check-out Including Adaptation for Non-Responders on the Off-Task Behavior of Elementary Students in a Residential Setting

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Abstract

This study evaluated the effects of a Tier II positive behavior interventions and supports (PBIS) intervention, Check-in/Check-out (CICO), on the off-task behavior of 4 students with behavioral challenges and special needs in a residential facility. In addition, the study examined the effects of additional mentor contact (i.e., mid-day check-up; Check-in/Check-up/Check-out; CICUCO) on the off-task behavior of a student who was nonresponsive to CICO. CICO produced decreases in the occurrences of off-task behavior in both CICO and CICUCO conditions with both noted as highly acceptable by school CICO mentors. Limitations and future directions are discussed.

Keywords: Secondary Tier Interventions, Check-In/Check-Out, Alternative Education, Behavioral Challenges, PBIS

Alternative schools and programs are designed to meet the needs of students at-risk for school failure and who have demonstrated histories of school failure in traditional school settings (Carver, Lewis, & Tice, 2010). Alternative education (AE) settings include self-contained schools, day treatment programs, residential facilities, and juvenile correction facilities with 558,300 students attending an AE school in the 2007-2008 academic year (Carver et al., 2010). Students who display disruptive and challenging behavior are some of the most likely to require supports outside the general education setting

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and in more restrictive AE settings (Gorney & Ysseldyke, 1993; Simonsen, Jeffrey-Pearsall, Sugai, & McCurdy, 2011). Students in AE environments must receive high quality effective instruction, in an intensified fashion to reduce the historical patterns of social and academic failure they have experienced (Nelson, Sprague, Jolivette, Smith, & Tobin, 2009; Simonsen, Jeffrey-Pearsall et al., 2011). One framework to help AE settings organize and provide tiered instruction and services is positive behavior interventions and supports (PBIS; Jolivette, McDaniel, Sprague, Swain-Bradway, & Ennis, 2012).

PBIS, a three-tiered framework, provides primary (school-/facility-wide; tier I), secondary (small group; tier II), and tertiary (individual; tier III) intervention options for proactively addressing the unique needs of students in AE settings through the frameworks' outcomes, data, practices, and systems (Simonsen, Jeffrey-Pearsall et al., 2011; Sugai & Horner, 2002). While it may be assumed that students in AE settings will automatically require tertiary-tier, individualized interventions, because AE facilities are structured to meet the needs of students with intense, frequent, longer in duration problem behavior, primary-tier supports may be effective and sufficient for meeting the needs of most students (80-90%) in these settings (Jolivette et al., 2012). The three tiers of PBIS allow for graduated instructional and intervention supports within the AE setting to respond to student needs as a small portion (i.e., 10-15%) of these students may require support at the secondary-tier.

A secondary-tier PBIS intervention that may be appropriate for students in AE settings is Check-in/Check-out (CICO) as it is designed to provide for more targeted intervention than is available through universal tier support and can be applied with numerous students (i.e., up to 30) at one time (Crone, Horner, & Hawken, 2004). CICO provides daily, scheduled, positive feedback between the student and an adult mentor linked to student classroom/setting behavioral performance and behavioral goals. Within CICO, students are paired with an adult mentor to check-in with at the start of each school day, and check-out with at the end of each school day. Numerous researchers have evaluated the impact of CICO in traditional elementary school settings with a majority of studies focused on students in general education (e.g., Campbell & Anderson, 2008; Hawken, O'Neill, & MacLeod, 2011; Todd, Campbell, Meyer, & Horner, 2008). Some students with individual education plans in traditional school settings have been included in CICO studies (e.g., Hawken & Horner, 2003; Todd et al., 2008; Simonsen, Myers, & Briere, 2011). Researchers have utilized various techniques to assess for CICO effectiveness including: (a) frequency of office discipline referrals (e.g., Filter et al., 2007; Hawken et

al., 2011), problem and prosocial behavior ratings (McIntosh, Campbell, Carter, & Dickey, 2009), and direct observation of problem behavior (e.g., Campbell & Anderson, 2008; Todd et al., 2008).

Although there are numerous studies addressing CICO intervention in traditional elementary settings, there is a paucity of research addressing CICO in AE settings. To date, there are two studies that evaluated CICO in a therapeutic residential AE setting with middle and high school students (Ennis, Jolivette, Swoszowski, & Johnson, 2012; Swoszowski, Jolivette, Fredrick, & Heflin, 2012). Ennis and colleagues (2012) evaluated the impact of CICO on the problem behavior of six students in grades 7-9 in a residential facility for students with emotional and behavioral disorders (E/BD). Problem behaviors were operationally defined per student based on functional behavioral data and were assessed using a partial-interval recording system. Results of a multiple baseline across participants design demonstrated student responsiveness by four of six participants, as indicated by a 20% or more change in percentage of intervals with problem behavior. Furthermore, teachers and staff reported satisfaction with the CICO intervention and a desire to implement CICO in the future; further indication of the utility of the CICO intervention in residential settings. Swoszowski and colleagues (2012) also examined the relationship between CICO and percentage of intervals of problem behavior for six students with E/BD in grades 9-12 in a residential facility. A nonconcurrent multiple baseline design was used and all six students demonstrated decreased percentages of intervals with problem behavior with two of the students' data variable.

Of the entire CICO literature (n=15 studies) across traditional and AE settings, a total of 36 out of 162 participants were considered nonresponders to CICO (Campbell & Anderson, 2008; Ennis et al., 2012; Fairbanks, Sugai, Guardino, & Lathrop, 2007; Filter et al., 2007; Hawken & Horner, 2003; Hawken, MacLeod, & Rawlings, 2007; Hawken at al., 2011; Lane, Capizzi, Fisher, & Ennis, 2012; McCurdy, Kunsch, & Reibstein, 2007; McIntosh et al., 2009; March & Horner, 2002; Mong, Johnson, & Mong, 2011; Simonsen, Myers, et al., 2011; Swoszowski et al., 2012 Todd et al., 2008). Researchers offer numerous arguments for the lack of responsiveness to CICO including (a) students with behavior maintained by a function other than adult attention may be less responsiveness to CICO (Campbell & Anderson, 2008; March & Horner, 2002; McIntosh et al., 2009); (b) when students are informed of their behavioral goals, and these goals are adjusted over time (i.e., changing criterion), it may be that higher goals (i.e., over 80%) may be considered unattainable or not worth the effort to students and thus result in variability (Lane et al., 2012); and (c)

the reinforcement rate of available mentor contact as well as agreed upon reward may be too infrequent (Ennis et al., 2012; Swoszowski, Patterson, & Crosby, 2011). Also, some researchers have advocated for additional check-ins throughout the day for students whose data are variable in response to CICO or for those whose behavior has not improved to levels perceived as acceptable within the targeted setting according to teacher report (Ennis et al., 2012; Swoszowski, Jolivette, & Fredrick, 2013; Swoszowski et al., 2011; Swoszowski et al., 2012).

Researchers have yet to examine the impact of a modified CICO process for nonresponders to the traditional CICO approach, such as additional check-ins throughout the day. Check-in/Check-up/Check-out (CICUCO) was designed to address the argument that students may demonstrate limited responsiveness to CICO because they require more frequent mentor contact and reinforcement. Historically, when students are unresponsive to CICO, researchers design tertiary tier individualized and function-specific interventions to address student need within the PBIS framework (e.g., Campbell & Anderson, 2008; March & Horner, 2002), which are time and resource intensive. CICUCO involves implementing traditional 5-step CICO (check-in, point feedback, check-out, home component, return to school) and adding a mid-day check-up (check-in, point feedback, check-up, point feedback, check-out, home component, return to school), whereby students have an additional meeting with their CICO mentor, review progress toward their behavioral goal at the middle point of the school day, and earn reinforcement for earning 50% of their daily goal at the mid-day check-up. Altering the CICO intervention by adding the check-up component allows students an opportunity to receive reinforcement more often and provides students with more frequent contact with their assigned CICO mentor than is available through traditional CICO, which may be sufficient for motivating students to remain on-task with their behavioral goals; thus, leading to increased engagement in classroom instruction. Furthermore, the check-up adaptation to CICO remains consistent with the resource-efficient focus of secondary tier interventions.

Additional research is warranted to assess the impact of CICO on problem behavior. The aims of this study were to (a) replicate previous research on the impact of CICO on the off-task behavior of elementary-age students (e.g., Campbell & Anderson, 2008; Filter et al., 2007; Todd et al., 2008), (b) evaluate the impact of CICO on the off-task behavior of elementary-age students in a residential setting, (c) evaluate an adaptation to CICO to allow for more frequent mentor contact for nonresponders, and (d) evaluate the social validity of CICO in an

AE setting from the perspective of the school mentor all within the pervue of the PBIS framework.

Method

Setting

This study was conducted in an alternative residential education setting for students with behavioral challenges located in the southeastern United States. The facility is accredited by the Council on Accreditation (COA) and includes a school building and residential housing including three cottages (a 36 bed unit). Students served in the residential program (a) range in age from 6-18, (b) have an Axis 1 diagnosis according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR), (c) have an IQ score of 65 or above, and (d) are typically served for 6-24 months in the facility. The school building is structured like a traditional school setting including classrooms, a library, a cafeteria, and offices. The students attend school for six periods each day (including one period of therapy) and return to cottages after school. Students are placed in classrooms by age and developmental ability. Each classroom is staffed by one certified teacher and two support staff with a maximum enrollment of ten students per class. Students eat breakfast and dinner in the cafeteria and lunch in the classroom. A class-wide system of positive supports (tier I) including teaching and rewarding behavioral expectations (e.g., be safe, be respectful, try your best) and using data to make decisions was in place prior to the study.

Participants

Four students participated in the study (see Table 1). Students were included according to (a) teacher referral for tier II intervention because the student was not responsive to tier I supports as indicated by discipline contact at a rate exceeding other students in the school, (b) parent informed consent, and (c) informed assent. Kendra, Solomon, Lance, and Marissa participated in the study, with the function maintaining their off-task behavior assessed through the Functional Assessment Checklist for Teachers and Staff (FACTS; March et al., 2000) and direct observations in their classrooms.

Three volunteer mentors received training to be CICO facilitators. The mentors included: (a) a female special education teacher, age 29; (b) a female paraprofessional, age 56; and (c) a male paraprofessional, age 28. Students were randomly assigned to a mentor and remained paired with the assigned mentor for the duration of the study. Three housing staff (2 females, 1 male) ranging in age from 31-62 also consented to participation and completed the home component of the CICO cycle.

Table 1
Student Demographics

Student	Age (Grade)	Gender	Race/ Ethnicity	Eligibility	DSM IV Diagnosis	Referring Agency	Length of Stay Prior to Baseline	FACTS Results (Function)
Kendra	9 (3)	F	AA	OHI	314.01; 313.89; 317	DHR	1 year, 7 months	AdAt
Solomon	9 (3)	M	AA	ED	314.01; 312.9	DHR	4 months	AdAt
Lance	7 (1)	M	AA	DD	314.01; 307.7	DHR	2 months	AdAt
Marissa	7 (1)	F	AA	OHI	312.9; 309.81; 314.01	DHR	3 months	AdAt

Note: F=female. M=male. AA=African American. OHI=other health impairment. ED=emotional disturbance. DD=developmental delay. 314.01=attention-deficit hyperactivity disorder combined type. 313.89=reactive attachment disorder. 317=mild intellectual disability. 312.9=disruptive behavior disorder not otherwise specified. 307.7=encopresis, without constipation and overflow incontinence. 309.81=posttraumatic stress disorder. DHR=Department of Human Resources Child and Family Services. AdAt=adult attention.

Direct Observation of Off-Task Behavior

Researchers were trained prior to baseline to record partial interval data of off-task behavior. Further, researchers practiced conducting in vivo observations of off-task behavior to a minimum of 90% agreement between two observers on an independent but simultaneous basis. Observers collected partial interval recording of off-task behavior data using 15-s intervals for fifteen min direct observations. Off-task behavior was defined as any time the student failed to attend to teacher instruction or the assigned task. Students were observed for a total of four observations per week per student. Researchers designed an intervention schedule prior to the intervention period with observations systematically staggered across the school day to allow for observations across all academic periods throughout intervention and to provide for consistency of observations across students. Observers used an MP3 player with headphones on a splitter for all observations. Researchers calculated the percentage of intervals with occurrence of off-task behavior by dividing the total number of intervals in which the off-task behavior occurred by the total number of intervals and multiplying by 100%.

Mentor Training

CICO mentors were trained to complete the CICO and CICUCO procedures during a two-hour training session one afternoon after school. Mentors were trained on the conversations to have with students during check-in, check-up, and check-out and on the completion of the CICO point sheet. Conversations included a review of the CICO point sheet including behavioral goals and daily point goal, discussions of scores (0, 1, 2) with emphasis on strategies to improve scores of 0 and 1, and all conversations ended with a positive, encouraging statement (e.g., "I know you can reach your point goal today"). Housing staff were trained to complete the home portion of the CICO cycle including discussing student progress toward meeting the daily point goal, signing the point sheet, and concluding the interaction with a positive statement (e.g., "Look at you meeting your point goal today – fantastic!"). Training continued until all mentors and housing staff completed their respective portion of the CICO cycle with 100% accuracy.

Design and Procedures

A concurrent multiple baseline across participants design coupled with visual analysis (Kennedy, 2005) was used to evaluate the effectiveness of the CICO intervention on the off-task behavior of students in an AE residential setting, and to assess the effects of an

additional mentor contact at mid-day (check-up; CICUCO) for a nonresponder to the traditional 5-step CICO cycle. Students were randomly assigned to tier order for the multiple baseline design indicating the order in which they would receive the CICO intervention.

Baseline. During baseline, data on the percentage of intervals with the occurrence of off-task behavior were collected using direct observation. All tier I supports including the acknowledgement of compliance with expectations remained in place throughout the baseline period.

CICO. A five step CICO intervention was implemented in addition to tier I supports. First, students met with their assigned CICO mentor on an individual basis in the classroom prior to the start of the instructional school day. Students received their CICO point sheet, discussed the point goal for the day (80% as recommended by Crone et al., 2004), and were reminded of the ideas they brainstormed for improving behavior from the day before. Check-in lasted approximately five minutes per student. Second, students received feedback on their behavior on the CICO point sheet per class period (i.e., language arts, math, P.E., social studies) by their teachers using scores of 2, 1, or 0. Students were awarded scores of 2 if they demonstrated the appropriate, desired behaviors consistent with expectations without support or reminders from teachers/staff. Students were awarded scores of 1 for partial demonstration of the desired behavior (i.e., they required numerous reminders and support to demonstrate the desired behaviors). Students received scores of 0 for failure to demonstrate the desired behavior (i.e., they were removed from the classroom for engaging in inappropriate, undesirable behavior, inconsistent with school-wide expectations). Third, at the end of the school day prior to dismissal, students met individually with their CICO mentors in the classroom or hallway for check-out to review their behavior ratings. Mentors praised the students for scores of 2. Mentors and students discussed scores of 1 and 0. Specifically, students were asked to discuss situations in which they scored a 1 or 0, and were asked to describe better ways to respond to potentially challenging situations in the future. When students met their CICO point goal (i.e., 80%), they received acknowledgement consistent with the class-wide reinforcement system. Once students received three acknowledgements, they earned access to the class treasure box to choose an item. No matter the score, students were encouraged with positive statements. Check-out lasted approximately five min per student. Fourth, after school, students discussed their CICO point sheet with their housing mentor (Crone et al., 2004). Housing mentors (a) praised students for meeting the CICO point goal, if applicable; (b) signed the CICO point

sheet; and (c) ended the discussion on a positive note. Fifth, students returned the CICO point sheet to their assigned CICO mentor the following day. The five step CICO cycle was repeated daily.

*CICUCO***.** Students who were nonresponsive to the 5-step CICO intervention (i.e., Lance and Marissa) as indicated by (a) limited responsiveness or variability of responding as indicated by a percent change of less than 40%, and (b) referral for the adaptation by the teacher because improvements in their behavior were not occurring at socially valued levels for the environment, were exposed to the additional condition, CICUCO. The target inclusion criteria of including students demonstrating variability as well as a percent change of less than 40% was selected for this study as this is consistent with measurement of responsiveness noted throughout CICO literature (i.e., variability coupled with mean changes of less than 20-50%; Swoszowski et al., 2012) as well as deemed an appropriate indication of responsiveness given the context of the AE setting and the classroom in which data were collected. The CICUCO condition included additional mentor contact and took place at mid-day. During CICUCO, the student met individually with his assigned mentor and (a) reviewed the daily point goal (i.e., 36 points), (b) discussed if 50% of the point goal had been met at mid-day (i.e., 18 points), and (c) discussed areas of difficulty (i.e., scores of 1 and 0), if applicable. If the student had met 50% of his point goal, he received acknowledgement consistent with the class-wide reinforcement system paired with verbal praise. Check-up lasted approximately five min per student and was conducted in the hallway during the transition between math and language arts. Check-up was scheduled at this time as this transition marked the half-way point for daily point earnings.

Fidelity. Fidelity assessments (see Table 2) were conducted across the intervention period, with observations evenly dispersed across students for an average of 22.16% (range, 20 to 23.81%) of intervention sessions using a 14-item fidelity checklist during traditional CICO and a 20-item fidelity checklist during CICUCO. Fidelity was calculated by dividing the total number of observed procedural steps by the total number of expected procedural steps and multiplying by 100%. Average fidelity for this study was 94.45% (range, 90 to 97.86%). A second observer conducted observations for an average of 31.81% (range, 27.2 to 40%) of the fidelity checks to determine interobserver agreement (IOA) of fidelity. Researchers used point-by-point agreement to calculate interobserver agreement of fidelity by dividing the total number of agreements by the total number of agreements plus disagreements and multiplying by 100% (Kennedy, 2005). Interobserver agreement of fidelity was 99.48% (range, 97.92 to 100%).

Table 2
Percent Occurrence of Off-Task Behavior (mean) by Student

Student	Baseline Mean	CICO Mean	CICUCO Mean	% Change from baseline	CICO Fidelity	IOA of Direct Observation	IOA of CICO Fidelity
Kendra	58.59	29.20	N/A	-50.16	94.81	97.69	100
Solomon	48.69	18.30	N/A	-62.42	90.00	99.00	100
Lance	46.61	31.80	19.79	-31.77 (CICO) -57.54 (CICUCO)	97.86	94.44	97.92
Marissa	57.37	39.40	N/A	-31.32	95.14	98.07	100

Interobserver agreement of direct observations. IOA was measured for the percentage of intervals with off-task behavior for an average of 21.90% (range, 20 to 23.26%) of direct observations. IOA observations were evenly dispersed across participants and throughout baseline and intervention sessions. Agreement was calculated using the point-by-point agreement formula by dividing the total number of agreements by the total number of agreements plus disagreements and multiplying by 100% (Kennedy, 2005). The average agreement across baseline and intervention observations was 97.3% (range, 94.44 to 99%).

Social validity. Social validity was assessed post-intervention using a standardized measure, the Intervention Rating Profile (IRP-15; Witt & Elliott, 1985). The IRP-15 prompted the school CICO mentors to rate their perceptions of the CICO and CICUCO interventions on 15 statements (e.g., "This intervention was a fair way to handle the child's problem behavior" and "I would suggest the use of this intervention to other teachers") using a 6-point Likert scale (1 = strongly disagree to 6 = strongly agree). The IRP-15 is calculated by adding each of the scores for a total score of 15-90; with 90 indicating the highest acceptance rating of the intervention and with internal

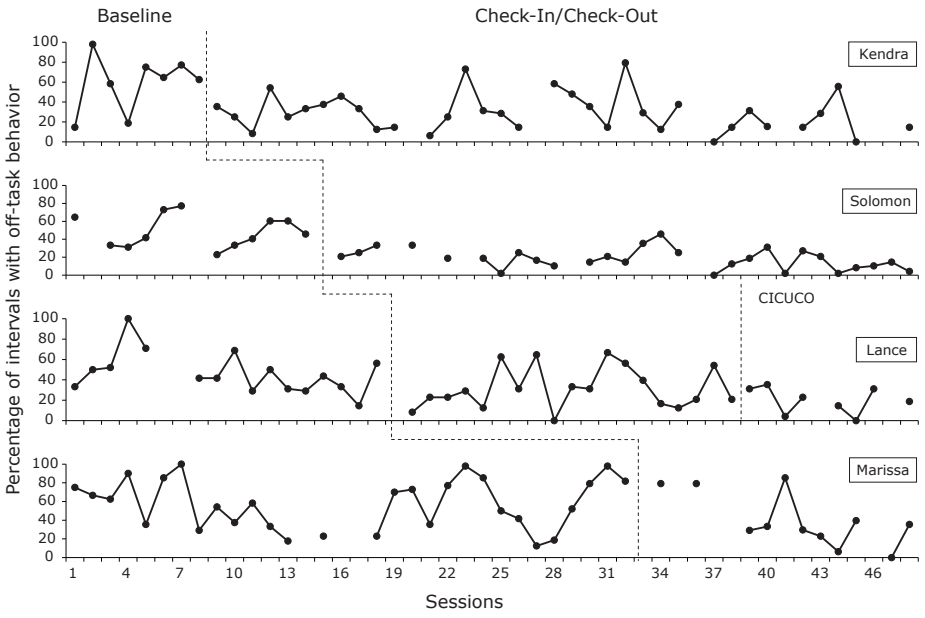

Figure 1. Percentage of intervals with off-task behavior.

consistency of .88 to .98. Student participants and housing staff did not complete social validity measures due to scheduling conflicts in the school setting post intervention which limited access to students and housing staff.

Results

Off-Task Behavior

Figure 1 represents the percentage of intervals in which researchers observed off-task behavior per student. Missing data points indicate a missed opportunity for data collection, and are discussed in detail per student below. See Table 2 for the mean percentage of intervals of off-task behavior as well as percent change in off-task behavior per student. All four students exposed to CICO responded positively as indicated by percent change in off-task behavior and visual analysis of percentage of intervals of off-task behavior. There were high rates of variability and less positive responding for both Lance and Marissa (31.77 and 31.32% change, respectively) to traditional CICO; thus, warranting additional mentor contact for these students through CICUCO.

Kendra demonstrated an average occurrence of off-task behavior of 58.59% of intervals during baseline and 29.20% of intervals during CICO. Kendra demonstrated variability in responding throughout the CICO condition but her data indicated a percent

change of over 40%, and she did not meet criteria (50.16%) for the CICUCO condition. There were six times when it was not possible to observe Kendra's behavior due to a hair appointment (session 20), a court date (session 27), visit to nurse (session 41), or due to a noninstructional period (e.g., nonacademic movie, free time) as in sessions 36, 46, and 47.

Solomon demonstrated an average occurrence of off-task behavior of 48.69% of intervals during baseline and 18.30% of intervals during CICO. Solomon's behavior improved with regard to variability and mean percentage with an immediate and significant decreasing trend in off-task behavior during intervention. Solomon did not meet the inclusion criteria (62.42%) for CICUCO. There were 8 times when it was not possible to observe Solomon due to speech instruction or therapy outside the classroom (sessions 2, 8, 15, 19, and 23), a hair appointment (session 21), and noninstructional periods (sessions 29 and 36).

Lance demonstrated an average occurrence of off-task behavior of 46.61% of intervals during baseline and 31.80% of intervals during CICO. Lance did meet the inclusion criteria for CICUCO; a percent change of less than 40% (31.77%) and teacher referral for the adaptation to the intervention. During CICUCO, Lance demonstrated an average occurrence of off-task behavior of 19.79%, indicating a 57.54% change (decrease) in occurrence of off-task behavior compared to baseline. There were five times when it was not possible to observe Lance due to an unknown absence (session 6), visit to nurse (session 7), a noninstructional period (session 19), restroom (session 43), and therapy (session 47).

Marissa demonstrated an average occurrence of off-task behavior of 57.37% of intervals during baseline and 39.40% of intervals during CICO. Marissa's data indicated variability in responding to CICO, with a decreasing trend observed toward the end of the intervention period. Marissa met the inclusion criteria for CICUCO based on off-task behavior (31.32%), but the teacher did not support the implementation of CICUCO because therapeutic staff in the AE setting were planning to provide Marissa with more individualized, intensive interventions requiring her to not be in some classes which would make the implementation of both CICO and CICUCO impossible. There were 8 times when it was not possible to observe Marissa due to visits with her case worker (sessions 14, 37, 46), noninstructional period (session 16), doctor appointment (session 17), nurse visit (session 33), removal from classroom (session 35), and a personal appointment (session 38).

Social Validity

On a scale of 15-90; with 90 indicating the highest acceptance rating of the intervention, the three CICO mentors rated the acceptability of the intervention 78, 81, and 81, respectively. All mentors ranked all items on the IRP-15 as agree (5) or strongly agree (6), and indicated CICO and CICUCO were acceptable interventions to address student problem behaviors and would suggest the use of the interventions to other teachers.

Discussion

In this study, the effect of the 5-step CICO intervention on the off-task behavior of four students with special needs in a residential setting was evaluated with all four students responding positively as demonstrated through mean changes in occurrences of off-task behavior. Further, the intervention was implemented with high rates of fidelity and reported as being an acceptable means of responding to off-task behavior. These findings are consistent with CICO studies conducted in AE settings (Ennis et al., 2012; Swoszowski et al., 2012) with older students with special needs. This study extended the application of CICO to elementary-age students in a residential facility. Also, this study extended the CICO literature by adapting CICO to include an additional mid-day check-up (CICUCO) for a student demonstrating variability in responding to CICO. The use of CICUCO resulted in an additional decrease in occurrence of off-task behavior and reduced variability in responding for the student. Historically, students who are not responsive to secondary-tier interventions within the PBIS framework, such as CICO, are exposed to more individualized interventions such as function-specific interventions (e.g., Campbell & Anderson, 2008; March & Horner, 2002). The individualized interventions can strain teacher and administrator resources (e.g., time, funding, training, materials). The additional mid-day check-up was incorporated within CICO and required minimal additional resources (e.g., time, mentor training). Furthermore, the additional check-up could be easily implemented with numerous students to meet the needs of nonresponsive students and their schedules/routines thus making the CICUCO intervention consistent with the guidelines and characteristics of secondary tier supports (Hawken, Adolphson, MacLeod, & Schumann, 2009). For these reasons, CICUCO may be an appealing adaptation option for educators to implement within the secondary tier prior to moving on to more intensive, individualized interventions at the tertiary tier.

Limitations and Future Directions

The present study was not without limitations; therefore, the results should be interpreted with caution. In addition, the results of this study bring to light several recommendations for future researchers. First, the small sample size (n=4) limits generalizability and additional research on the implementation of CICO with elementary school age students with special needs in residential settings is warranted. Related to sample size, the CICUCO condition was only implemented with one student. In the future, researchers should replicate CICUCO with other students nonresponsive to CICO along with fading CICUCO back to CICO. Second, the priorities of the teacher were outside of researcher control, which at times conflicted with the study. For example, the teacher introduced Lance to CICO before stability was reached in his baseline, and Marissa's programming was changed after CICO, which interfered with CICUCO implementation. To address both of these issues, researchers may evaluate alternative research designs to allow for more flexibility while maintaining methodological rigor.

Conclusion

Despite the noted limitations, this study provides additional support of the effectiveness of CICO in AE settings, and extends the literature to elementary school students in residential facilities. Furthermore, this study documented the use of an adaptation to the traditional CICO cycle to include a mid-day check up for a student who was unresponsive (i.e., demonstrated high levels of variability in responding) to traditional CICO. Both CICO and CICUCO are feasible and effective for students in AE settings and are secondary-tier interventions teachers may select from within the PBIS framework to provide tiered supports for students nonresponsive to primary supports or CICO.

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STOP and DARE: Self-Regulated Strategy Development for Persuasive Writing with Elementary Students with E/BD in a Residential Facility

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Abstract

Self-regulated strategy development is an evidence-based practice for use with students with emotional and behavioral disorders (E/BD). This study adds to the current research base by conducting the first investigation in a residential facility for students with E/BD and the first classwide investigation at the elementary level with students with E/BD. The STOP and DARE mnemonic was used to teach 16 students with E/BD persuasive writing over six-weeks of intervention. The intervention, viewed as socially acceptable by students and teachers, was implemented with high fidelity as measured by the interventionist and researchers. The intervention resulted in large effect sizes as compared with a control group (n = 9) for number of essay elements, overall quality, and total written words. Results generalized to the Writing Samples Subtest of the *Woodcock Johnson*. Limitations and future directions also are included.

Keywords: Self-Regulated Strategy Development, SRSD, Writing, Emotional And Behavioral Disorders, E/BD, residential Facility, Alternative Education, PBIS.

Students with emotional and behavioral disorders (E/BD) have academic deficits (Reid, Gonzalez, Nordness, Trout, & Epstein, 2004) and are less academically engaged in the classroom than their peers (Wagner & Cameto, 2004). Because of the unique needs of students with E/BD, many are being served in more restrictive settings, such as residential facilities. Students served in residential facilities represent a diverse group of individuals; however, previous researchers have demonstrated these students may possess common risk factors,

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such as externalizing behavior patterns, abusive or neglectful family situations, family instability, low socioeconomic status, and deficits in school functioning (Hagaman, Trout, Chmelka, Thompson, & Reid, 2010). The goal of placement in residential facilities is to provide an appropriate level of structure for academic instruction, behavioral and therapeutic support, and later transition to a less restrictive environment (Simonsen, Britton, & Young, 2010). Further, residential facilities are highly-structured environments that provide comprehensive, remedial, and therapeutic supports across academic, behavioral, and social domains. However, research in residential facilities is sparse (Tobin & Sprague, 2000), particularly in academics, and future investigations are warranted.

Self-Regulated Strategy Development

Researchers have shown students with E/BD have substantial deficits that remain stable over time in the areas of reading, mathematics, and written expression (Nelson, Benner, Lane, & Smith, 2004). Despite knowing about these deficits, there is a paucity of research in academic interventions for students with E/BD, especially in the area of writing (Little, Lane, Harris, Graham, Story, & Sandmel, 2010). Students with difficulties in the area of writing struggle to generate and organize ideas, set personal writing goals, self-monitor written performance, and revise written work (Harris & Graham, 1996). One evidence-based intervention that addresses all of these difficulties is self-regulated strategy development (SRSD).

SRSD is designed to address difficulties with writing as well as attitudes, beliefs, and motivation related to the writing process. The SRSD six-stage model includes procedures for goal setting, self-monitoring, self-instruction, and self-reinforcement which may generalize to other settings and maintain when taught to mastery in whole-class, small group, or individual settings (Harris, Graham, Mason, & Friedlander, 2008). SRSD instruction is comprised of six flexible and recursive stages: *Develop Background Knowledge*, *Discuss the Strategy, Model the Strategy, Memorize the Strategy*, *Support the Strategy,* and *Independent Performance* (see Ennis & Jolivette, 2012; Harris, Graham, Mason, & Friedlander, 2008 for a detailed description; online interactive tutorials are available at: *http://iris.peabody.vanderbilt.edu/index.html*).

In a review of the literature on SRSD with students with and at-risk for E/BD, Ennis and Jolivette (2012) identified 14 studies using SRSD with this population and 11 were implementing school-wide positive behavior interventions and supports (SW-PBIS). PBIS, described throughout this issue, is a three-tiered, coordinated model of support designed to prevent and reduce the occurrence of problem

behaviors by providing support at universal, secondary, and tertiary tiers (Jolivette & Nelson, 2010). Two other studies reported individualized behavior plans were in place (Ennis & Jolivette, 2012). Structured behavioral support is imperative when implementing academic interventions with students with E/BD.

Of the 14 studies implementing SRSD with students with and at-risk for E/BD, three investigated the use of SRSD instruction in more restrictive educational settings. Those three studies took place at the middle school level and used the mnemonic POW+TREE to teach persuasive writing (Cuenca-Sanchez, Mastropieri, Scruggs, & Kidd, 2012; Mason, Kubina, Valasa, & Cramer, 2010; Mastropieri et al., 2009). Cuenca-Sanchez et al. (2012) intervened with 11, 7th graders with E/BD in a small group setting. Using a pre-post-test design, they observed large effect sizes for all writing measures as compared to a control group of 10 students. Mason et al. (2010) taught SRSD to five middle school students individually. Using a multiple baseline across participants design, they observed gains in essay elements, length, and quality of writing for all participants. Finally, Mastropieri et al. (2009) intervened with 12, 8th graders with E/BD in small groups. Using a multiple-baseline across participants design, they observed gains in length and quality for all participants. Both Mastropieri et al. (2009) and Cuenca-Sanchez et al. (2012) taught fluency lessons following SRSD instruction and found students were able to write essays with all the necessary elements during 10-min sessions. Likewise, both Mastropieri et al. (2009) and Mason et al. (2010) used the Writing Fluency subtest of the *Woodcock Johnson-III* (WJ-III; Woodcock, McGrew, & Mather, 2001) to assess generalization to a standardized writing measure.

Presently, there are no studies at the elementary level investigating SRSD instruction in self-contained or residential settings (Ennis & Jolivette, 2012). However, there are three studies investigating SRSD with students with E/BD at the elementary level in traditional school settings. Adkins and Gavins (in press) used POW+WWW, What = 2, How = 2 to teach narrative writing to three 2nd and 3rd graders with E/BD in a self-contained classroom in a public elementary school. Using a multiple-baseline design, they observed gains in length, story elements, and quality. Mason and Shriner (2008) used POW+TREE to teach persuasive writing to six (1 = E/BD, 1 = E/BD and other health impairment attention deficit hyperactivity disorder, 1 = E/BD and learning disabilities) 2nd through 5th graders in an inclusive elementary school. Using a multiple-baseline across participants design they observed gains in essay elements, length, quality, and number of transition words for all participants. Finally, Mason et al. (2006)

used TWA+PLANS to teach expository writing to nine (1 = E/BD) 4th graders in a traditional elementary school with instruction provided in small groups. Using a multiple-baseline design across groups of participants design, they observed gains in oral and written retells for all participants.

While these results are promising, investigations are needed with elementary students in more restrictive educational settings. Further, the current investigations in alternative education settings took place within day schools for students with E/BD. To date, no studies have taken place within residential facilities where students receive psychological and educational supports within a 24/7 model, which are known to serve students with unique needs and risk factors (Hagaman et al., 2010) that may impact their responsiveness to academic interventions.

Purpose

The purpose of this investigation was to extend SRSD inquiry by conducting the first investigation classwide with elementary students with E/BD in a residential facility currently implementing PBIS. The following research questions were addressed: (a) Can SRSD be implemented with fidelity by a research teacher with elementary students with E/BD in a residential school? (b) Does SRSD instruction for persuasive writing result in increased length, essay elements, and quality of written persuasive essays? (c) Does SRSD instruction result in changed student performance on a standardized writing assessment? (d) Are different measures of writing progress and achievement related to one another? and (e) How do classroom teachers and students perceive the social validity of STOP and DARE SRSD instruction both pre- and post-intervention?

Method

Setting and Participants

Setting. This study took place in an urban residential school in the Southeast for students with E/BD in first through twelfth grades. The school serves up to 74 students at a time, and provides educational and psychological services to students as needed 24/7. Classrooms are led by special education teachers assisted by one to two residential unit staff (adult-student ratio of 2:10 to 3:10). Students are served in mixed-grade-level classes grouped by age and ability level. The intervention took place during language arts classes, which met for 45 minutes each day. Writing lessons took place two to three days a week throughout a six-week summer school session where the students attended school for an hour and a half each day (45 minutes of language

arts, 45 minutes of math). This school is in its fifth year of implementation of school-wide PBIS (Jolivette, Patterson, Swoszowski, McDaniel, Kennedy, & Ennis, 2013). The school-wide initiative includes procedures for teaching, reinforcing, and monitoring their behavioral expectations. Prior to the start of the study, the School-wide Evaluation Tool (SET; Horner et al., 2004) was administered with 95.36% fidelity overall and 80% fidelity on the teaching expectations subscale scores.

Student participants. Participants were all the 25 upper elementary students in 3rd through 6th grades (see Table 1). Two classes served as the intervention group (n = 16) with a third group of students serving as the control group (n = 9). The majority of participants were receiving special education services under the eligibility requirements of emotional disturbance (68.00%), and all students had psychiatric diagnoses of emotional and/or behavioral disorders, and were receiving psychological services during their stay in the residential facility. Students were not randomly assigned to groups as they were assigned to classes by the school administrator prior to beginning the study.

Teacher participants. Two teachers led the language arts classes, one African American male and one Caucasian female teacher both with 3 years of teaching experience. The teachers were present for all lessons and completed social validity ratings of the intervention.

Project staff. Project staff included one research teacher and two research assistants. The research teacher, a Caucasian female with 3 years of teaching experience, was a doctoral candidate not currently teaching at the school but certified in both language arts and special education. The research assistants also were Caucasian female doctoral students who were responsible for direct observation data collection, scoring, and treatment fidelity observations.

Measures

Strength and Difficulties Questionnaire (SDQ). The SDQ is a 25-item validated screening tool that yields a total difficulties score as well as a score in the following domains: peer problems, conduct problems, emotional symptoms, hyperactivity, and prosocial (the opposite of antisocial) behavior (Goodman, 1997). The SDQ was completed by teachers for each student the week prior to the start of data collection to provide descriptive information about the students' risk status. Reliability of scoring was completed for a minimum of 50% of student data by a research assistant. Any errors found were corrected prior to data analyses.

Systematic Screening for Behavioral Disorders (SSBD). The SSBD is a multiple-gating screening tool validated for use with elementary school students. For purposes of this investigation, Stages 1 and 2

Table 1
Student Participants

		Intervention		Control		Total	
Variable	Level	*n*	%	*n*	%	*n*	%
Gender	Male	15	93.75	8	88.89	23	82.00
	Female	1	6.25	1	11.11	2	8.00
Ethnicity	Caucasian	10	62.50	5	55.56	15	60.00
	African American	6	37.50	4	44.44	10	40.00
Grade Level	Third	0	0.00	1	11.11	1	4.00
	Fourth	5	31.25	5	55.56	9	36.00
	Fifth	8	50.00	1	11.11	9	36.00
	Sixth	3	18.75	2	22.22	5	20.00
ED Eligibility		9	56.25	8	88.89	17	68.00
SSBD	Clinically Significant Externalizers	15	93.75	6	66.67	21	84.00
	Clinically Significant Internalizers	0	0.00	2	22.22	2	8.00
SDQ	Abnormal Total Difficulties	14	87.50	7	77.78	21	84.00

	Intervention Group Means	Control Group Means
Average Academic Engagement	51.33%	65.77%
Average Stay Prior to Data Collection	4.1 Months	2.6 Months

were used to determine if a student (a) was an internalizer or externalizer, and (b) displayed clinically significant behavior patterns. Stage 1 involves having a teacher rank their class in terms of their top 10 externalizers and internalizers. Teachers were given definitions (including examples and nonexamples) of internalizing and externalizing behavior patterns. Since all of the students in the study are referred to the facility for possessing antisocial behavior patterns, teachers were asked to classify the students in their class as either externalizers or internalizers, but not to rank order them. Stage 2 involves having teachers provide additional information on their top three internalizers and externalizers by completing the Critical Events Index to evaluate low frequency, high intensity behaviors (33 items, marked exhibited or not exhibited in the current school year) and the Combined Frequency Index of Adaptive and Maladaptive Behavior to evaluate high frequency, low intensity behaviors (33 items, 12 adaptive behavior and 11 items maladaptive behavior; marked using a Likert-type scale, 1 – 5). Since all students participating in the study have or were at-risk for E/BD, teachers completed Stage 2 instruments on all participants.

Academic engagement. Data on student engagement during writing instruction were collected using 10-sec whole interval recording for 10-min sessions. Research assistants collected direct observation of behavior for each student four times over the course of instruction for students in both the intervention and control groups. Students were randomly assigned to an observation period (i.e., first 10 minutes, second 10 minutes) during each lesson. Academic engagement was operationally defined as: eyes on teacher, peer contributing to lesson, or materials; in designated area of room; writing to/reading the writing prompts (may appear to be in thought); asking relevant question(s); engaging in academic talk with teacher, peers, and staff. Nonexamples of academic engagement were defined as: eyes on distractions/irrelevant stimuli; coloring or writing on non-lesson materials; leaving the designated area without permission; asking irrelevant questions; engaging in nonacademic talk with peers, staff, or teachers; reading a book/materials not a part of the lesson; sleeping.

Writing probes. A persuasive writing prompt from the SRSD text (Harris et al., 2008) was administered to both groups at pre-, post-, and maintenance-phases. All prompts required students to take a position, formulate an argument, and provide support for their argument. Student responses were scored for elements, quality, and length as outlined below.

Essay elements. Students' written responses were scored for the number of essay elements. Students could earn one point for a topic, one point each for supporting reasons, one point each for counter-

arguments, and one point for a conclusion (Mason, Kubina, & Taft, 2011).

Quality. Essays were scored in terms of the quality of the written work using a holistic rubric with a 6-point Likert scale (1 = lowest, 6 = highest) for each of four categories: focus development, organization, fluency, and conventions (Chalk, Hagan-Burke, & Burke, 2005).

Total written words (TWW). TWW is a measure of the number of words written. When scoring TWW, students are not penalized for errors in context and spelling, as a word is defined as a letter or group of letters with a space before and after (Hosp, Hosp, & Howell, 2007).

Woodcock Johnson Test of Achievement, Third Edition (WJ-III). The Writing Fluency and Writing Samples subtests of the *WJ-III* (Woodcock et al., 2001) were used to obtain descriptive information on student's writing ability as well as a pre- and post-test measure of writing achievement. Tests were administered and scored according to the directions and guidelines of the *WJ-III* manual (Mather & Woodcock, 2001). *WJ-III* subtests yield a W score with a range from 0 to 1000 used for comparison of pre- to post-intervention change. The Writing Fluency subtest measures skill in writing simple sentences quickly within 7-min. The Writing Samples subtest requires participants to produce sentences with increasing difficulty in terms of passage length, vocabulary, grammatical complexity, and concept abstraction.

Social validity. To assess social validity pre- and post-intervention, the Intervention Rating Profile (IRP-15; Witt & Elliott, 1985) and the Children's Intervention Rating Profile (CIRP; Witt & Elliott, 1985) were administered by a research assistant. The IRP-15 obtains social validity information from the teacher perspective and contains 15 items on a 6-point Likert scale (1 = strongly disagree to 6 = strongly agree) yielding a score from 15-90. The CIRP obtains social validity information from the student perspective and is a 7-item questionnaire on a 6-point Likert scale (1 = I do not agree to 6 = I agree; with 3 items worded negatively and reverse scored) yielding a score from 7-42. On both validated measures, higher scores indicate higher treatment acceptability.

Treatment fidelity. Treatment fidelity of SRSD lessons was evaluated using a checklist that contained the essential elements of the lesson presented. In addition, treatment fidelity of effective teaching behaviors was evaluated using a 10-item fidelity checklist containing effective teaching behaviors (i.e., teacher engages students in discussion where indicated) and components of the school-wide PBIS plan (i.e., teacher reminds students of behavioral expectations) created for the purposes of this study. Each item was marked as not observed (0), observed some of the time - inconsistent (1), or observed most of the

time – consistent (2). Any time fidelity was assessed, both measures were completed for the instructional session.

Procedures

Assessment procedures. Persuasive writing prompts were administered by the research teacher in the students' language arts class. Students had up to the entire 45-minute class period to write. During writing prompt administration, the prompt was read aloud to students being instructed to answer the question and provide reasons to support their answer in a paragraph or essay. When students indicated that they were through, they were prompted to read over their work to see if (a) they could think of any additional reason to support their answers, and (b) they needed to correct any spelling, grammar, or punctuation errors. These procedures were kept consistent for both intervention and control groups during both pre- and post-test administration. In addition, a maintenance administration was conducted following these procedures for both the intervention and control group six weeks following post-test.

SRSD intervention. The intervention was taught to classes of 8 students each. Class 1 completed the SRSD lessons in 12 sessions over 6 weeks and class 2 completed the SRSD lessons in 16 sessions over 6 weeks. The STOP and DARE mnemonic and lesson plans were adapted from Harris et al. (2008) to 12, 45-minute instructional sessions. Each lesson was taught to mastery, which is why class 2 required additional sessions. STOP and DARE reminds students to **S**uspend judgment, **T**ake a side, **O**rganize ideas, **P**lan more as you write; and **D**evelop your topic sentence, **A**dd supporting ideas, **R**eject at least one argument for the other side, **E**nd with a conclusion. The lessons followed the six stages of SRSD instruction (Harris et al., 2008). The research teacher took attendance for all participants. Throughout the intervention, the average attendance for the intervention group was 84.38% (range, 41.67 – 100%).

*Control group***.** The control group class also received writing instruction two to three times per week for 45 minutes over six weeks. Writing instruction, as noted by research assistants during direct observations, included activities such as revision and instruction of essay components but did not involve any self-regulation strategies or SRSD.

Scoring procedures. Prior to scoring, the research teacher and research assistants met to review the procedures for scoring elements, quality, and TWW as well as the *WJ-III* scoring manual until all parties were clear on how these variables were defined. Then, scorers reached reliability (above 90%) with one another using mock data. Copies of

data were made prior to scoring, so each researcher viewed the student's work independently. Reliability of scoring was completed for 75% of student writing data by a research assistant. Scorers then met to assess interrater reliability and discuss disagreements until discrepancies were resolved (Mastropieri, 2009). Independent raters agreed on initial assessment 96.16% (range, 81.82 – 100%) of the time on *WJ-III* Fluency and 91.16% (range, 83.33 – 100%) on the Samples measure. Independent raters agreed on initial assessments 98.04% (range, 66.67 – 100%) of the time for essay elements, 98.97% (range, 93.33 – 100%) for TWW, and 99.49 % (range, 97.78 – 100%) for overall quality.

Treatment fidelity procedures. Treatment fidelity of both SRSD lesson components and effective instruction was assessed by the research teacher each time a lesson was taught to serve as a reminder to implement all elements of the lesson and utilize effective instructional procedures. During a minimum of 33% of lessons, a researcher completed the two same checklists to ensure adherence to treatment fidelity with a second researcher completing inter-observer agreement (IOA) for a minimum of 33% of those lessons. During IOA observations, two researchers completed the fidelity checklists independently of one another and calculated agreement by dividing the smallest number of observed steps by the largest number of observed steps and multiplying by 100.

Inter-observer agreement. Researchers were required to reach IOA of 90% or higher over three consecutive sessions of academic engagement observations with the primary investigator prior to collecting actual academic engagement study data. Once reliability was achieved, IOA was assessed for a minimum of 33% of observations. During IOA observations, two researchers completed data collection independently of one another. Agreement was calculated use point-by-point agreement for each interval and dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100.

Design and Data Analysis

A pre- and post-test group experimental design was used to compare the writing outcomes of the SRSD intervention group with the control group to address research questions 2 and 3. Independent sample *t* tests were conducted prior to data analysis to determine if there were statistically significant differences between groups in terms of pretest writing achievement. Effect size comparisons between groups were calculated by subtracting the posttest mean of the control group from the posttest mean of the SRSD group and dividing by the standard deviation of the control group (Graham & Harris, 2003). To address research question 4, intercorrelations

among methods of writing assessment were calculated for pre-, post-, and maintenance-test assessments.

Results

There were no significant differences between the control and intervention groups among all of the descriptive variables (see Table 1) except for internalizer/externalizer status on the SSBD ($p < .001$). The control group contained two internalizing students while the intervention group was composed entirely of students classified by their teachers as externalizers; however, there were no significant differences between groups for the number of students identified as having clinical behavior patterns on the SSBD.

Writing Outcomes

Writing probes. At pre-test there were no significant differences between the two groups for elements t (23) = -.107 (p = .915), overall quality t (22) = 1.366 (p = .186), or total written words t (23) = .737 (p = .469). At post-test, while both group means improved, the intervention group outperformed students in the control group across all variables (see Table 2). At maintenance assessment, the intervention group outperformed students in the control group with students in the control group performing at or below their pre-test levels. Effect sizes were large for each variable at post-test and maintenance assessment (range = 1.06 to 1.35). A post hoc power estimation using the sample size, α = .05, and the smallest effect size (1.06) yielded a power estimation of .80.

Writing achievement. At pre-test there were no significant differences between the two groups for *WJ-III* Fluency t (23) = .504 (p = .843). There also were no significant differences between groups on the *WJ-III* Samples subtest t (23) = -.349 (p = .871). When comparing post-test means, Fluency yielded a small effect size and Samples yielded a small negative effect size.

Writing measures. In an effort to evaluate the relation among writing measures, intercorrelations of intervention group writing scores were calculated (see Table 3). Intercorrelations between the pre-, post-, and maintenance-test outcomes of the number of essay elements, quality, TWW and the pre- and post-test outcomes of the Writing Fluency, and Writing Samples were compared. The three writing probes measures were statistically significantly correlated with one another at all three timepoints (p = .01).This suggests there is a relation between the three methods of scoring writing probes. The pre- and post-test measures of Writing Fluency and Writing Samples (p = .01) were highly correlated with one another, not surprising given the reliability of standardized achievement measures like the *WJ-III.*

Table 2
Intervention Results

	Intervention			Control				
	Pre-Intervention M (SD)	Post-Intervention M (SD)	Maintenance M (SD)	Pre-Intervention M (SD)	Post-Intervention M (SD)	Maintenance M (SD)	Post Effect Size	Maintenance Effect Size
Elements	2.06 (1.39)	4.40 (1.96)	3.64 (1.60)	2.00 (1.41)	2.78 (1.20)	2.14 (0.69)	1.35	2.17
Quality	6.94 (3.74)	13.47 (4.82)	13.21 (4.85)	9.22 (3.83)	10.56 (2.74)	6.57 (2.37)	1.06	2.80
TWW	21.38 (21.08)	42.87 (21.03)	42.21 (28.78)	15.59 (9.20)	26.00 (13.28)	14.43 (3.55)	1.27	7.83
WJ-III Fluency	478.13 (14.85)	483.87 (8.76)	-	481.11 (12.99)	482.33 (9.87)	-	0.16	-
WJ-III Samples	488.60 (7.87)	486.20 (8.90)	-	487.33 (9.73)	486.67 (10.59)	-	-0.04	-

Table 3
Correlation Matrix

Item	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Pretest Elements	1.00												
2. Pretest Quality	.644**	1.00											
3. Pretest TWW	.804**	.631**	1.00										
4. Pretest *WJ-III* Fluency	.215	.257	.241	1.00									
5. Pretest *WJ-III* Samples	.156	-.082	.216	.274	1.00								
6. Posttest Elements	.210	-.091	.329	.106	.358	1.00							
7. Posttest Quality	.132	-.048	.319	.117	.311	.783**	1.00						
8. Posttest TWW	.074	-.203	.325	-.040	.447	.676**	.744**	1.00					
9. Posttest *WJ-III* Fluency	.487*	.171	.479*	.544**	.518*	.532**	.419*	.369	1.00				
10. Posttest *WJ-III* Samples	.072	-.030	.160	.321	.681**	.245	.168	.363	.519**	1.00			
11. Maintenance Elements	.239	-.047	.281	.287	.232	.248	.251	.401	.437*	.401	1.00		
12. Maintenance Quality	.153	-.116	.277	.198	.432	.369	.367	.607**	.445*	.476*	.907**	1.00	
13. Maintenance TWW	.265	-.108	..357	.155	.427	.354	.400	.447*	.538*	.342	.753**	.766**	1.00

Note. *= significant at $p < .05$, **=significant at $p < .01$, all remaining were not significant.

Treatment Fidelity

According to both research teacher (100% of sessions; M = 97.87%, SD = 3.71) and researcher ratings (55.56% of sessions; M = 98.22%, SD = 3.72), the lesson components were implemented with high fidelity. Likewise, the effective instructional procedures as measured by the research teacher (M = 98.43%, SD = 5.62) and researcher (M = 97.11%, SD = 6.15) were implemented with high fidelity. Further, IOA was completed for 46.67% of research observations with 100% agreement.

Social Validity

At pre-assessment, social validity was rated highly by both students (M = 33.6; SD = 5.73) and teachers (teacher 1 = 85, teacher 2 = 80). At post-assessment the student rating was still highly acceptable, but slightly lower (M = 31.8; SD = 5.95). Students communicated to researchers they continued to use STOP and DARE for writing after the intervention. Students stated they enjoyed working together to do writing tasks with one another and with the teacher, memorizing the strategy, and graphing their essays to evaluate their progress. At post-assessment teacher 1's rating increased slightly to 87, while teacher 2's level of acceptability decreased slightly to 74. Both teachers reported anecdotally to researchers they were pleased with the level of progress the students made and felt the strategy was a success.

Discussion

Findings from the current study are consistent with existing research using SRSD with students with E/BD in alternative education settings (e.g., Mastropieri et al., 2009) and with elementary students (e.g., Mason et al., 2006) in that students made gains across all variables of persuasive writing (elements, quality, and TWW). Further, those gains maintained at a six-week maintenance check, with even larger effect sizes calculated between groups than at post-test. Students receiving SRSD instruction shared with project staff they used the steps of STOP and DARE when writing their response to the maintenance probe and had used the mnemonic in other classes. The results, however, did not generalize to the *WJ-III* as there was a small effect for Fluency and a small negative effect for Samples.

Additionally, this study evaluated the relation between various measures of writing assessment, and found elements, quality, and TWW were statistically significantly correlated with one another at pre-, post-, and maintenance-test assessments. This is consistent with other researchers evaluating the best method of writing assessment (e.g., Hosp et al., 2007; McMaster & Campbell, 2008). Further the WJ-III

writing assessment subtests were statistically significantly correlated with one another at posttest.

It is noteworthy that this study took place within a school implementing PBIS with fidelity, as behavioral supports are necessary to promote effective academic instruction. This finding also is consistent with other investigations implementing SRSD for students with E/BD (Ennis & Jolivette, 2012). This study added to the literature base by being the first study conducted in a residential facility where students may present more severe behaviors and unique needs (Hagaman et al., 2010). In addition, this is the first investigation to look at teaching SRSD classwide in an alternative education facility, which can be challenging given the aforementioned challenging behaviors as well as classes in residential facilities often serve students in more than one grade level. The nature of the STOP and DARE lessons allowed teachers to present the same lessons to students in multiple grade levels at the same time.

Limitations

Despite these promising findings, the current investigation should be interpreted in light of several limitations. To begin, the students were not randomly assigned to groups. Students were assigned to classes by the school administration prior to the beginning of the study. Although this is a common issue in school-based research, it does not represent best practices for experimental research. A related limitation is the intervention group was larger than the comparison group and data were not collected concurrently. However, statistical significance testing revealed the groups were statistically significantly equivalent on all variables except internalizer/externalizer status on the SSBD. In addition, it is a common practice in school-based research to expose as many students to an intervention considered evidence-based as possible, such as SRSD (Ennis & Jolivette, 2012). Likewise, the small sample size only allows for tentative conclusions from the correlations between writing assessment measures.

An additional limitation is some students' attendance may have impacted their responsiveness to the intervention. Attendance is a common problem in residential facilities as students are often pulled from classroom instruction for group or individual therapeutic sessions (Ennis, Jolivette, Swoszowski, & Johnson, 2012). Some students also may miss class due to the consequences of their inappropriate behavior. An additional limitation is that attendance was only collected on the intervention group. Furthermore, students' overall engagement during intervention was relatively low (M = 51.33%), with some students having significantly low engagement. This too could have impacted students' responsiveness to the intervention.

Future Directions

While the results of this investigation are promising, future research in the area of academic interventions for students with E/BD served in residential facilities is needed. Future researchers should be sure to include quality indicators for educational research such as social validity, treatment fidelity, reliability, and IOA (Gersten et al., 2005). Because writing is essential to success across content areas, replication of the current study should be considered in settings other than language arts class. Investigations also are needed in residential facilities at the middle and high school levels and/or with other genres of writing. In addition, SRSD was implemented as a classwide secondary-tier intervention within the context of the school's three-tiered model of PBIS. Now that this study has illustrated that SRSD can be implemented with fidelity in a residential facility by a research teacher, the next step is to see if classroom teachers can implement this strategy classwide in these settings (Odom et al., 2005).

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Tertiary-Tier PBIS in Alternative, Residential and Correctional School Settings: Considering Intensity in the Delivery of Evidence-Based Practice

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Abstract

Students in alternative, residential, and correctional settings present challenges in the classroom and facility due to the complexity and intensity of their behaviors. In addition, the factors typically associated with these settings including crowding, inconsistency, and conflicting staff perspectives on education and discipline present challenges for the delivery of effective function-based intervention plans. Multi-tiered frameworks such as positive behavior interventions and supports (PBIS) provide mechanisms for organizing systems to be both proactive and responsive to students with the most challenging behaviors. However, the complexities of alternative, residential, and correctional settings require that PBIS be implemented with heightened intensity across tiers. This paper presents considerations for the effective implementation of Tier III systems and supports including function-based support planning (FBP).

Positive behavior interventions and supports (PBIS) is an evidence-based multi-tiered system for addressing discipline problems in schools (e.g., Bradshaw, Mitchell, & Leaf, 2010; Horner et al., 2009; Sugai & Horner, 2006). The first two tiers of PBIS are focused on school-/facility-wide and small group interventions, the third tier is concerned with individualized assessment and intervention, typically involving functional behavior assessment and team-based function-based intervention (Sugai et al., 2000). While the research on effective PBIS across tiers is well-established, the bulk of that research is with typical schools, at the elementary age level, and focused at the tier I (e.g., Sailor, Stowe, Turnbull, Klienhammer, & Tramill, 2007; Simonsen, Sugai, & Negron, 2008). Less attention has been paid to how settings such as alternative, residential, and correctional schools/facilities may necessitate alterations in systems, practices, and procedures— especially as they relate to individual student interventions.

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These alternative education (AE) settings are most unique by nature of their population; they are made up exclusively of children and youth who in the typical environment would be considered to be the most challenging and identified as requiring the highest level of intervention. However, evidence shows that the breakdown of students identified in each of the tiers does not significantly differ across different settings (Nelson, Sprague, & Martin, 2007). That is, the majority of students in both typical schools and AE settings are largely successful with the expectations (Nelson et al., 2007). Of course, the complexity of structure and coordination among systems is necessarily much greater in settings with more challenging populations. By that same token, while functional behavior assessment and function-based intervention planning (FBP) are characteristic of intervention at tier III (Sugai et al., 2000), the simplified FBP procedures commonly presented in the literature (e.g., Loman & Borgmeier, 2010; Scott, Anderson, & Spaulding, 2008; Scott & Kamps, 2007) will likely be insufficient in AE settings. That is, the complexity of structure and practice related to FBP will necessarily be greater in settings where student misbehavior is likely to be more serious in terms of both topography and intensity (Turton, 2009).

This paper presents considerations for implementing effective tier III interventions in AE settings. Consideration of the necessary and sufficient systems and procedures requires first an analysis of the unique features commonly associated with these settings.

Unique Features of Alternative, Residential, and Correctional School Settings

AE settings present various characteristics such as a focus on punitive consequences (NAACP, 2005) that are not conducive to the academic and social/behavioral success of students—especially those with disabilities. In particular, characteristics such as a focus on instruction with intervention and an established collaboration structure that allow for the effective implementation of PBIS in typical school settings may be lacking across the range of AE settings (NAACP, 2005). This is especially concerning considering that estimates indicate that 50 to 80% of the students in these settings have learning disabilities (Quinn, Rutherford, Leone, Osher, & Poirer, 2005), compared to a 4.2% prevalence among the general student population in typical school settings (Friend & Bursuck, 2012).

In addition to a range of disabilities, students removed from typical school settings are more likely to have been victims of abuse and have intensive mental health needs. It is estimated that between 40 and 73% of girls in the juvenile corrections system have been physi-

cally abused, compared with 26% in the general population (Girls, Inc., 2002). In fact, past studies of youth in the juvenile justice system have estimated the prevalence of post-traumatic stress disorder at 41%, a history of child abuse at between 25-31%, and anxiety disorders at between 6 and 41% (Nelson, Rutherford, & Wolford, 1996). Given the fact that rates of school exclusion have roughly doubled since the 1970s (Cregor & Hewitt, 2011) it is likely that rates of mental health disorders among youth in AE settings will continue to represent a major obstacle to positive outcomes in the absence of increased treatment intensity.

Despite the more intense needs in AE settings, personnel in these settings often lack training in areas related to individualized intervention from an instructional perspective. In a needs assessment focusing on personnel needs in correctional settings Kvarfordt, Purcell, and Shannon (2005) reported that less than two thirds of personnel working with incarcerated youth reported having received any training in how to work with persons with disabilities. Personnel in the assessment also expressed a distinct lack of confidence in their abilities with regard to understanding when and how learning disabilities affect students' academic performance and overall social behavior. Moreover, AE settings are staffed by a wide range of personnel from a variety of disciplines and often with conflicting views on intervention and treatment (Nelson, Sugai, & Smith, 2005). In fact, even basic communications between differing shifts and among varied personnel roles has been noted to be problematic (Houchins, Jolivette, Wessendorf, McGlynn, & Nelson, 2005). Much of the issue regarding conflicting views on discipline is evident in the pervasive reliance on punitive and reactive strategies despite the evidence in favor of more proactive and educational approaches (e.g., Bradshaw, Mitchell, & Leaf, 2010). In AE settings the range of perspectives among stakeholders, lack of training, and absence of reliance on data for decision-making present challenges for effective intervention.

The unique challenges presented within AE settings necessitate unique support structures. However, the systems that are widely identified as evidence-based in working with challenging behaviors are not different for this population. In other words, what is unique about AE settings is not the process, it is the intensity with which systemic structures support effective teaming, intervention, and evaluation. In this context, intensity refers to the vigor or effort required for implementation with fidelity, although at tier III intensity may also connote the degree to which intervention is complex and the degree to which fidelity and collaboration are necessary.

Considerations at Tier III: Big Ideas

In terms of practice in dealing with challenging behaviors, functional behavior assessment (FBA) and the resulting function-based intervention plan (FBP) represent the hallmark strategy for both assessment and intervention (e.g., Newcomer & Lewis, 2004; Turton, Umbriet, Liaupsin, & Bartley, 2007). Having first appeared in federal law in 1997 and more recently reauthorized in the Individuals with Disabilities Education Improvement Act (IDEIA, 2004), FBA is a mandated strategy in response to challenging behavior from students identified with emotional and behavioral disorders (E/BD). According to Drasgow and Yell (2001), FBA as outlined in IDEIA was intended to be part of the process for addressing problems demonstrated by students with behavioral disorders (i.e., when behavior interferes with their own or others' learning). Considering populations that include incarcerated youth, the use of FBA in AE settings, is a worthy target for mandating additional efforts as students with E/BD have been widely documented as having the least favorable outcomes of any group of individuals with disabilities (Kauffman & Landrum, 2009).

Effective interventions in AE settings share common features with tier III interventions in all other settings, albeit with necessarily more intensity. What may be sufficient to predict success across all students in typical schools likely is appreciably different from what is required when working with students in AE settings (Nelson, Rutherford, & Wolford, 1996; Nelson, Sprague, Jolivette, Smith, & Tobin, 2009). Unique considerations are required to provide sufficient support for function-based intervention and the full range of evidence-based instructional practices in these settings. While other papers in this special issue focus more exclusively on the key features of effective PBIS systems at tiers I and II, the discussion of tier III begins here with an overview of the necessary considerations for implementing effective tier III systems in AE settings. Table 1 presents a summary of the considerations associated with both tier III systems features and the specific steps associated with FBP.

Teaming

In AE settings it is essential that individualized tier III teams include a larger array of stakeholders given the complexity of learning disabilities, histories of abuse, and mental health needs often presenting with these students, representing the typically larger body of personnel working with these students. This expansion represents the type of increased intensity and complexity necessary for this more challenging population. Such teams are commonly referred to as Student Response Teams, Individual Support Teams, or

Table 1
Considerations for Effective Use of Function-Based Intervention Planning (FBP) in Alternative, Residential, and Correctional Settings

Considerations	Tier III Questions	Tier III Adaptations
Teaming Collaboration Evaluation	• Are essential stakeholders involved? • Are essential experts involved? • Is one person fluent with FBP? • Who will run the meeting? • What training will be necessary? • What are criteria for success?	• Tier III teams include larger scope of membership in anticipation of more intense needs and likelihood of wraparound planning • Assign team leader fluent with FBP and use a structured agenda • Increased training across a range of personnel • Wider range of individuals to train in collection of data and to determine minimum criteria for success
FBP Step 1 Define problem	• Which referrals have highest need? • Is problem defined by context? • Do we have all available info?	• Prioritize referrals by need • Increase observations across wider range of settings/contexts • Increase record keeping precision (infrequent-high intensity behavior)
FBP Step 2 Determine function	• Do we have info re: previous FBP? • Can we test team hypotheses?	• Consider possibility of multiple and dual functions • Develop simple tests to verify hypotheses (e.g., brief functional analysis)
FBP Step 3 Teach replacement	• What replacement is most relevant? • How will we develop instruction? • Do staff have instructional skills?	• Consider replacement behavior relevance given student's age/context • Prepare for direct instruction of basic behaviors (explicit and engaging) • Staff training in effective instructional strategies (academic and social)
FBP Step 4 Facilitate success	• How can adults facilitate success? • Can natural reinforcers be applied? • Is response to failure functional?	• Prepare more precise and consistent routines and physical arrangements • Prepare for objections to praise and reinforcement – train staff to deliver consistently • Discuss functionality of consequences and monitor adult fidelity
FBP Step 5 Evaluate progress	• Are we monitoring in all contexts? • Is there a plan for data collection? • What are the criteria for success? • Are data accessible to team members?	• Individual data collected across a broader range of settings and staff (including 24/7 system features) • Detailed monitoring plan – who, how, when, where • Develop consensus as to a measureable criteria for success

Behavior Intervention Planning Teams. The charge of such teams is to determine the extent and nature of the problem and to then make decisions regarding future programming in the most effective and efficient manner possible. Typical membership would include persons who can recommend the most expeditiously effective course of action (Conroy, Clark, Gable, & Fox, 1999; Lewis & Sugai, 1999). In AE settings, this generally involves teachers, instructional assistants, administrators, parents/guardians, and medical staff; a team which is representative of all aspects of the facility in which behavioral change is sought. Often, these teams begin smaller and add additional members with particular expertise only as interventions are deemed to be unsuccessful. That is, a failed plan warrants a more intensive team to develop a more intensive plan. In its most intensive form in any setting, tier III intervention involves wraparound planning that involves all facets of the student's life including family, friends, and range of persons with relevant expertise (Eber, Smith, Sugai, & Scott, 2002). While a full blown wraparound planning team is neither realistic nor warranted for all students identified at tier III in AE settings, it is logical to consider an increased intensity of tier III teams earlier than what might be typical in school settings.

The larger scope of team membership in AE settings is warranted because (1) these students' needs are typically more complex and (2) these settings typically have a broader range of personnel and expertise involved. Still, each team should be developed individually to include those persons whose knowledge of the student and issues is deemed relevant and practical in light of the available data. For example, if existing data suggest difficulty with fighting and anger then mental health, security officers, or psychological services personnel may be appropriate to invite. Similarly, if impulsiveness and attention are key concerns then a medical professional may be appropriate to provide assessment and suggestions with regard to the possibility of an additional mental health diagnosis. Thus, physical therapists, occupational therapists, speech/language specialists, mental health professionals, central office staff, and other relevant personnel may be involved as indicated by existing information.

Collaborative Intervention Planning

Because the charge of the tier III team is to use assessment data to create FBPs, the team leader must be and hopefully some members are fluent with FBA and FBP. While it would be optimal if all team members were fluent in behavior analysis techniques, it is unlikely and unnecessary. The leader's job is to facilitate the team's efforts to collect the relevant data, discuss issues related to context, determine

the most logical next course of action, and assign tasks. In addition to a designated leader, effective teams meet regularly, have an agenda, set measurable goals, make decisions based on data, and share tasks across membership (Chandler, Dahlquist, Repp, & Feltz, 1999). Leadership is important to ensure both the efficiency of planning within a large team and to ensure fidelity within the assessment and intervention process. While these points may be viewed as *best practice* in the confines of a typical school, they likely are more like *essential features* given the need for increased intensity in AE settings.

A major component of collaboration is the degree to which team members agree to and understand function as a concept for intervention and have the necessary skills and intent to implement effective FBP. The key to success with any FBP is often in the degree to which there is fidelity with the intervention (Horner et al., 2009). The team leader must facilitate a discussion of the intervention among stakeholders to (a) determine where and what training will be necessary for the implementers and (b) develop a plan for monitoring the fidelity of implementation across all involved. While this is not different from what is important with any tier III process, the more intense behaviors of students in these settings will require that training be both implemented across a wider range of persons and be more individualized to meet the uniquely intense behaviors.

Monitoring and Evaluation

PBIS is defined, in part, by its adherence to data-based decision making. Those decisions that show positive improvements are continued while those that do not are replaced. In typical settings individualized interventions are monitored by a single teacher or a small number of persons involved with the case. In AE settings, the intensity of the student population predicts that problems are likely to occur across a larger range of settings and contexts. Thus, monitoring and data collection training and facilitation becomes more complex as data must be reliably collected across a wide range of personnel and sometimes within 24/7 contexts. Because decisions based on data are only as valid as the data being used, a first major issue for considering individual student monitoring is the degree to which personnel are willing and able to collect the necessary data to evaluate individual student interventions; a documented problem within AE settings (Jolivette & Nelson, 2010). Facilitation of consistent monitoring across a range of personnel requires more intense training across adults in the environment.

The key data-based decision at this level involves the development of individualized goals for students identified as needing tier III

intervention. The question is, at any given point in time, what level of student performance is minimally indicative of success? Data-based decision making for individual students requires that team members agree upon both the nature of the data to be collected (i.e., what and how) and the targeted goals (i.e., criteria) against which success will be judged. The merit of intervention is best judged by measurable changes in student behavior. That is, regardless of how well the intervention was received or implemented, if student behavior does not improve to the degree deemed sufficient by the team, the intervention cannot be considered a success. The team's role is first to determine the level of success necessary to alleviate the problem and then to measure the current level of performance to determine a reasonable timeline for success. Because success or failure is determined by the student's performance, success should represent the minimal level of performance necessary to maintain sufficient progress toward the ultimate behavior goal (Kerr & Nelson, 2009). For example, a team may determine that success for a student would be to halve the number of behavior occurrences or to prevent the youth from engaging in more serious behavioral incidents (e.g., youth-on-youth assaults). Whether the team sets this as a goal to be achieved by tomorrow as opposed to a month or year from now depends upon the student's current level of performance and what the team deems a realistic goal. Clearly, the complexities, intensity of problems, and array of personnel associated with AE settings create challenges for data-based decision making. Just as most personnel in these settings are not trained to teach, most are not trained to collect individual student data; a task which is all the more difficult given the intensity of behavior. Further, decisions as to the minimum criteria for success will be subject to a wide range of perspectives, many of which may believe that anything less than perfection deserves a punitive response. These challenges require intensified training and support not only for potential team members but for all persons working in the facility.

Function-Based Support: Features of Intensified Practice

FBA has been defined as a systematic method of "generating information on the events preceding and following behavior in an attempt to determine which antecedents and consequences are reliably associated with the occurrence of the behavior" (Miltenberger, 1997, p. 563). In simplest terms, FBA assesses the relationship between a behavior and the surrounding environment to create effective intervention plans. The increased likelihood of problem behavior and complexity of environment in AE settings evince a need for increased intensity in the way in which FBA is implemented. Because it

produces no numerical score or other measures for comparison or ranking, the only purpose of FBA is to develop an intervention that fits the student's functional needs in the context of the setting in which it is to be implemented.

Although FBA is widely accepted as an evidence-based practice, there has been a consistent argument that this evidence comes mainly from research with students in self-contained classrooms with externalizing behaviors, and implemented by researchers rather than teachers (Scott et al., 2004). To the extent this is true, there is some question as to the processes considerations necessary for effective implementation in AE settings. This consideration represents the type of system-wide intensity that must be considered in moving to AE settings. Inherent across all steps are the larger concepts of intensified systemic structures and data-based decision making. The degree of effort, number involved and roles of individuals, and the time invested in these processes are critical issues when considering effective individualized intervention at tier III.

FBA leading to an FBP is a team-based process, involving a range of persons who are familiar with the student and those with expertise in critical areas identified as relevant to the student's needs and fidelity of implementation. The following presents the key steps associated with the FBA and FBP process, with special attention given to the intensity required for effective use in AE settings.

Step 1: Define the Problem and Context

The first step in the process of developing a FBP requires more than a simple definition of behavior. The first consideration is with the nature of the behavior of concern to prepare a comprehensive assessment and intervention plan. As tier III teams are individualized to students, it may be helpful to know something about student behavior prior to finalizing team composition. For this reason it may be helpful to categorize behaviors according to nature or complexity. For example, typical settings may choose to refer to behaviors characterized by off-task and attention deficits as Level 1; behaviors characterized by disruption, disrespect, and non-compliance as Level 2; and behaviors characterized by dangerous or illegal activity as Level 3; whereas in AE settings, Level 1 may include passive or active refusal to participate in programming and bullying; Level 2 may include possession and/or use of contraband and verbal threats; Level 3 may include youth-on-youth assaults, youth-on-staff assaults, and self-harm. Such categorization can help determine the need to involve other persons within and outside the agency in addition to those familiar with the student's daily behavior.

The second consideration at this initial step is to define the exact nature of the behaviors that are of concern. This includes consideration of what the behaviors are, when/where they occur (location, time of day, day of week, shift), when/where they do not occur, with whom they occur, and any other pertinent information that will help to provide an adequate understanding and perspective of the behavior. This task is carried out by the full team based on their experiences with the student, discipline/incident reports, disciplinary findings, and any other available data. The initial task is simply to establish a topographic definition of the behavior – what it is that the student is doing? Second, the team must identify predictable contexts and circumstances associated with the behavior of concern. Clearly, the more intense the behavior (e.g., Level 3), the larger the depth and breadth of information will need to be. Due to this, a single data dashboard with all relevant information related to youth behavior should be available to all team members at any point in time (Jolivette & Nelson, 2010).

The product of this step is a clear statement of the predictable context, a topographically defined behavior, and an index of the degree to which the behavior is a problem. This can be summarized as a statement: *under X conditions, student tends to engage in Y behavior to this degree*. Conditions include academic subject matter, specific programming activities, events, the presence or absence of other persons, or any other observable environmental condition. For example, when asked to answer a question in class, Aaron will curse at the teacher loudly enough to disrupt the entire class. This describes both the student's behavior and the observed predictor. Typically, discussions among those who have had repeated exposure to student misbehavior are able to develop simple statements regarding the predictability of student behavior. However, more complex cases may require additional direct observations scheduled among team members and involving specialized assessments via invited experts. The degree to which the behavior is a problem can be described in terms of its duration, intensity, latency, or frequency. Of typical concern with more challenging students are infrequent but intense events – what Walker, Colvin, and Ramsey (1995) refer to as "behavioral earthquakes." For example, a student may be involved in a fight three or four times a year – but each instance is extreme in terms of physical violence and duration. The problem with such infrequent behaviors is that they generally are not observed often enough to warrant valid prediction. That is, all agree that the student fights but the behavior has occurred so infrequently that the team is unable to confidently identify a predictable context; however, intervention is still warranted.

Because such intense behaviors are more likely among youth in AE settings, intensified record keeping is imperative. For each instance of intense behavior, all involved adults should write a complete report detailing all that was observed and known. The parameters for how such reports are completed must be an agreed upon procedure within the more intensive components of tier I data collection in these settings and implemented with consistency across the AE setting and entire system (i.e., state agency, if applicable). Important information includes not only observations of the events surrounding the behavior but also more distal antecedents. For example, knowing that an intense event occurred on a day in which the student also had problems at breakfast, was late to class, or received a punitive consequences earlier in the day may be valuable in terms of predicting future behavior. Thus, reporting procedures need to include a greater intensity of detail regarding both the behavior and an array of environmental conditions, especially for 24/7 settings. In addition, it is important to note that FBP is not unique to social behavior and also can be applied in academic and vocational contexts (Filter & Horner, 2009).

Step 2: Determine the Function of Behavior

The second step of the FBP takes the information developed in the first step and adds information about predictable consequences of behavior. The result is a comprehensive statement: *under X conditions, student tends to engage in Y behavior to this degree and Z tends to be the outcome.* For example, team members have observed that the typical result of Aaron's loud cursing is initial attention from peers, quickly followed by the teacher asking everyone to ignore Aaron and eventually removing him from the class (this also is observed in nonclass settings). While an initial hypothesis may be that Aaron's cursing functions to access peer attention, also it appears that cursing may function to help Aaron escape from the classroom. Whether the access or escape function is most accurate, or whether both functions operate equally is a question that the team must work to answer. Knowing the function of Aaron's behavior will be crucial in the formulation of a replacement behavior and development of both environmental and consequence manipulations as part of the intervention within the PBIS framework (O'Neill et al., 1997).

As has been discussed, students in AE settings are more likely to suffer from an array of historical abuses and mental health disorders. It is possible that these factors will complicate the identification of simple functional relationships. In addition, staff in these settings often approach behavior from a range of incompatible perspectives; increasing the complexity involved in developing a statement of

function with which the team can be reasonably confident. That is, the more complex the individual, the history, and the background of the team, the more difficult it becomes to reach consensus on function. While experimental manipulations of the environment to verify function (e.g., functional analysis) has generally been abandoned as too onerous a task in typical school settings (Loman & Borgmeier, 2010; Scott et al., 2004), such increased intensity may be necessary to achieve reasonable consensus among the team in AE settings.

Step 3: Teach Replacement Behavior

Ideally, the team should attempt to replace undesirable behavior with an appropriate behavior that serves the same function (i.e., purpose) for the student. For example, if the team's agreed upon function for Aaron was access to peer attention, the replacement behavior should involve Aaron engaging in a more appropriate behavior that would result in peer attention. If the team's agreed upon function for Aaron was escape from the adult demands in the classroom or other environments, the replacement behavior should involve Aaron engaging in a more appropriate behavior that would allow him to escape at least part of an adult demand. If both functions are operating at one time the focus of the replacement behavior is the same but becomes much more complicated as it must allow Aaron to receive both appropriate peer attention and escape at least part of an adult demand. Clearly, behaviors that serve dual functions or multiple behaviors used to obtain the same function create a complexity warranting an increased intensity to be reasonably certain that the identified function is accurate. Also, because AE settings are defined by the delinquent nature of the students in attendance, selecting relevant replacement behaviors presents an additional challenge. What adults find appropriate (e.g., asking for help) may be punished by peers in the environment. Teams must work together to develop replacement behaviors that are functional for the student, appropriate for promoting success in the classroom, facility, and beyond, and acceptable within the unique culture and context of the AE setting.

Defining the parameters of an effectively functional and appropriate replacement behavior presents challenges due to the complexity of behaviors and functions often associated with students in these settings. However, teaching presents equally complex issues and considerations as, aside from the teachers, staff in AE settings are not trained to deliver instruction. This is even more relevant given the fact that students in these settings are very likely to present academic, cognitive, and social deficits that may play a major role in predicting problem behavior. The team's instructional planning must account

for academics as an environmental variable related to behavior. Effective instruction of behavior, no matter the setting within the school or facility, requires that the teaching be direct and explicit, including modeling, guided practice, and consistent feedback (Hattie, 2009). Perhaps the first step in considering instruction of a replacement behavior is consideration of the degree to which staff across the environment will require training to provide the necessary level and content of instruction. The FBP is unlikely to be effective if instruction cannot be delivered with fidelity across staff and settings.

Step 4: Facilitate Student Success

Effective instruction is necessary but likely not sufficient to predict that the student will cease problem behavior in favor of the replacement behavior. The probability of success is related to both instruction and the degree to which the environment can be manipulated to both encourage and enforce appropriate behavior. As a first consideration, the replacement behavior must result in success from the initial trial and may be additionally reinforced externally by the universal PBIS reinforcement system. An attempt at replacement behavior by the student that results in failure (i.e., does not meet desired function) will not persist. Under these conditions the undesirable behavior, which historically has been very reliable in meeting those needs, will continue to occur. Thus, initial replacement behaviors must be simple, set up to occur in the natural environment by manipulating antecedents, and immediately reinforced when observed. Thus, the focus must be solely on facilitating successful demonstration of replacement behavior and providing immediate reinforcement – using reinforcers that are functionally equivalent to those that have been maintaining the challenging behavior and linked to universal PBIS.

Controlling the environment presents a challenge even to staff in typical educational settings (Park & Scott, 2008; Stichter & Sasso, 2005). When the environmental complexity increases in the ways associated with AE settings the challenges associated with manipulations to facilitate success become more complex and intense. Simple manipulations may involve furniture arrangements, positioning teachers and students, staff placement/movement, and the use of prompts and cues to avoid the potential for predictable problems. Because AE settings likely are characterized by more rigid schedules, routines, and supervision to maintain order as part of tier I intervention, students with failures are those for whom even such intense environmental controls have not been sufficient. Thus, the typical student in these settings will require an increased intensity of manipulations

within the environment. Given the previously discussed issues associated with a range of perspectives among staff, this increased intensity may be deemed unnecessary by some. The role of the team leader will be to focus attention to the question, "what would it take for you to feel comfortable predicting that the student will be successful tomorrow?" Still, adults whose perspective is that students must take full responsibility for their success will be a challenge for any effort to implement consistent and comprehensive environmental support for student success.

Reinforcement systems such as token economies may be useful in assisting the delivery of frequent reinforcement (Kerr & Nelson, 2009) and are commonplace in more restrictive settings and with students presenting the most intense behaviors. In addition, verbal reinforcement, social recognition, and physical gestures (e.g., pats on the back) can be provided easily and frequently – but may not be relevant in the context of AE settings. The team must keep in mind that the purpose of the FBA was to identify the natural reinforcers in the environment. The goal is to encourage students to engage in replacement behavior so that the natural reinforcer (i.e., function) may be delivered. Increasing positive interactions presents a major challenge to settings in which negativity and punishment have been the norm. Again, the team leader must facilitate the team's planning for reinforcement, considering the objections that some staff may have to the provision of even the simplest forms of verbal praise.

Step 5: Evaluate

No plan is effective if it is not implemented. Nor may an ineffective plan be rendered effective if it is not monitored, evaluated, and adjusted as necessary. Thus, an effective FBP must be constantly reviewed and modified according to data that are collected throughout the implementation process. This process is based on an appropriate and accurate FBA the behaviors of concern, the development of a behavioral intervention plan that incorporates the results of this assessment, and the accurate implementation of this plan by those who work directly with the student.

The purpose of monitoring student behavior is to evaluate the effectiveness of intervention. Interventions that are effective should be continued while those that are not must be reconsidered and adapted with consideration of the data (Kerr & Nelson, 2009). AE settings present challenges for individual data collection that are similar to those presented at tiers I and II. That is, a broader range of staff, settings, and contexts requires intensified training and support to facilitate consistent monitoring; and a shift from data collection processes only

after a behavioral incident occurs. In addition, the increased complexity of student behaviors likely will warrant more complex measures. For example, behaviors associated with how a student interacts with adults when presented with a direction requires that the same type of data be collected across teachers, security officers, counselors, administrators, and all other ancillary personnel. Furthermore, FBPs for intense behavior often will require that intervention continue unchanged over extended periods of time. Clearly, the longer an intervention is in place, the more likely it is that staff will drift from the agreed upon procedures. The team must meet more regularly than what would be the norm in a typical setting. It is recommended that teams meet weekly – but no less than once every two weeks. This increased intensity is necessary to keep the team focused on the intervention requirements and to provide a time to discuss issues affecting both the fidelity and success of the intervention.

Conclusions

The challenges presented by the complexities, intensities, and variations associated with AE settings require increased intensity in the development, implementation, and monitoring of effective procedures across all three PBIS tiers. While the practice of FBA leading to an FBP is not different in these settings, the intensity of procedures required to predict success likely is. It is tempting to suggest that logical steps toward improving outcomes for these students would involve public schools committing to more proactive intervention, effective instructional practices across all students, and decreasing exclusion as a disciplinary policy. However, while these policies are widely advocated (NAACP, 2005) and supported by available research, the current system of AE settings persists and efforts must be made within that reality.

As a general rule, AE settings must be organized in a manner that supports multi-tiered systems of support such as PBIS (Jolivette, McDaniel, Sprague, Swain-Bradway, & Ennis, 2012). For those students whose behaviors were not responsive to tiers I and II support, tier III support systems must be established and working in a consistent manner. However, the complexities of AE settings require that processes and procedures be implemented with greater intensity in terms of input, contextual consideration, and fidelity. At tier III, the system is defined by an individualized student-centered team, whose job it is to develop interventions that will be implemented across the entire system. The suggestions in the research literature regarding effective implementation of these teams are generally considered best practices in terms of promoting the probability of success in public school

settings. However, in more complex AE settings these suggestions must be both bolstered and considered as essential features, with practices in place to ensure fidelity.

Perhaps the hallmark of any effective system is the degree to which the stakeholders are able to reach consensus as to the essential practices and to then engage in those practices in a consistent manner that becomes the culture of the school/facility. While AE settings present challenges to such agreements and consistency, the systemic structure of the PBIS tiered framework provides mechanisms to facilitate consistent use of effective practice no matter the tiers of support needed.

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Adopting and Adapting PBIS for Secure Juvenile Justice Settings: Lessons Learned

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Abstract

This article provides a rationale and guidelines for the adoption and implementation of positive behavior interventions and supports (PBIS) in secure juvenile justice settings, including benefits for youth and staff members. The rationale for extending PBIS to juvenile justice settings based on the authors' collective work in numerous states and types of juvenile settings is provided. The iterative development and field-testing process for PBIS implementation in these settings as well as features of the adapted materials and protocols are described. Evaluation methods are outlined and the paper closes with recommendations for future research and practice.

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Putting high-risk youth into environments that traditionally have been punitive and restrictive goes against scientific evidence about supporting healthy adolescent development and restricts youth opportunities to learn and practice adaptive behavioral and cognitive skills (Lipsey, Wilson, & Cothern, 2000; Nelson, Leone, & Rutherford, 2004). In the face of this evidence; however, most state and county systems continue to utilize incarceration and punishment, which interferes with effective diversionary, treatment, and rehabilitation practices.

Researchers indicate that an effective juvenile justice (JJ) system communicates, promotes, and richly reinforces desirable behavior and minimizes opportunities for youth to engage in problematic behavior (Nelson, Jolivette, Leone, & Mathur, 2010). Adults in an effective JJ system provide numerous opportunities for youth to engage in positive activities and build skills and motivation as well as consistently and fairly give corrective consequences for rule infractions, consistent practices within the PBIS framework. PBIS practices are appropriate and needed for adjudicated youth with disabilities because: (a) they have the same rights to a free and appropriate public education as do their peers in traditional school systems, (b) they must be afforded the protections and services under the law that their peers with disabilities receive in general education schools, and (c) they need access to a comprehensive curriculum that emphasizes both academic and social skill instruction and support (Scott et al., 2002).

The Promise of PBIS for Juvenile Justice Programs

The extension and adaptation of PBIS into JJ settings is in its early stages of development and testing (Nelson, Scott, Gagnon, Jolivette, & Sprague, 2008). State and local leaders, program administrators, front line staff members (e.g., general and special education teachers, residential, law enforcement, and mental health staff members), advocates, and researchers increasingly are adopting PBIS as a promising approach to better meet the complex and diverse needs of youth involved in the juvenile justice system. This promise and the suggested features of PBIS practices for JJ programs have been outlined in multiple publications (McDaniel, Jolivette, & Ennis, 2012; Nelson, Sprague, Jolivette, Smith, & Tobin, 2009; Nelson et al., 2010; Nelson et al., 2008). Furthermore, researchers are reflecting on facility-wide PBIS (FW-PBIS) implementation to identify the process of learning and development and to inform current and future practices.

How Learning Occurred

Two of the authors are directing a U.S. Department of Education research project focused on PBIS practices in secure JJ facilities. We, along with our colleagues, are developing and testing a systematic staff development approach to PBIS to assess whether implementation is feasible and desirable (social validity) for direct care staff members and leaders, and to assess the potential efficacy of the approach by measuring implementation fidelity, organizational health (Newman, Rutter, & Smith, 1989), and youth outcomes. To our knowledge, it is the first field-test and study to address these aims and address system, data, and staff practices. This paper presents lessons learned from the project and a later publication will provide data-based results. Each of the components of the project is discussed in detail below.

Develop and Test Facility-wide PBIS Systems and Practices Modules

One essential component of the project to aid with staff training and development includes materials to guide FW-PBIS teams to define, develop, and implement six essential features of PBIS including: (a) facility-wide adoption and implementation conditions, (b) universal behavioral expectations, (c) systematic behavior communication and teaching, (d) positive reinforcement systems, (e) instructional and function-based responses to mild problem behavior, and (f) strategies for defusing aggressive or escalating behavior. These materials were adapted to fit within the contextual variables inherent in JJ facilities (Jolivette & Nelson, 2010). These modules have been introduced to FW-PBIS Leadership teams through multiple, all day professional development or through sequenced 2-3 hour professional development sessions across many months.

Develop and Test a Response to Intervention (RtI) Problem Solving System

Content has been embedded within each of the staff development modules to assist FW-PBIS teams to apply data-based decision making rules to key staff member and student outcomes. This includes analyzing incident report patterns by frequency, type, location, referring staff member, time of day, youth self-management or token economy points, school attendance, and teacher/staff member attendance. Some facilities and agencies are creating 3-tiered data "dashboards" to assist FW-PBIS teams with data-based decision-making (e.g., movement in and out of the various tiers, and monitoring intervention effectiveness). These embedded modules provide data-based decision-making questions the teams should ask when looking at current and past data, methods for goal setting within their action plans, and ideas for how to share facility discipline data with staff.

Develop and Test a Check-In/Check-Out Self-Management and Problem Solving System

JJ programs commonly implement some form of point system, usually embedded within an overall level system or hierarchical system of privileges contingent upon accumulating points and exhibiting specified behaviors. There are a predictable set of concerns that arise regarding implementation of such systems (Dunlap & Childen, 1996), including inconsistent use and coercion (staff member and youth). We are working to adapt the widely adopted tier II PBIS practice called "Check-In Check-Out" (CICO; Crone, Hawken, & Horner, 2010; Crone & Horner, 2003) which involves the systematic mentorship of youth related to self-monitoring and managing behavioral and academic goal achievement, and problem solving if problem behaviors occur.

CICO practices include (a) the youth checks in with an assigned staff member at the beginning of the day to set behavior and academic goals for that day; (b) the youth takes the point sheet from class to class and also other areas in the facility for verbal and written feedback from teachers or staff members; (c) the youth checks out with the CICO mentor at the end of the day to review progress, problem-solve issues, set goals for the next day, and receive reinforcement/feedback; (d) the point sheet is taken to the residence staff to be shared with the guardian or supervisor for praise/feedback; and (e) the youth returns the signed point sheet to the mentor the next morning (Hawken, MacLeod, & O'Neill, 2007). Researchers are demonstrating that CICO can reduce some of the unintended negative artifacts of point and level systems (e.g., staff and youth manipulation, lack of treatment fidelity), and improve the structure and consistency of positive feedback to youth in these types of facilities. We are assisting facilities to develop CICO protocols consistent with facility-wide behavioral expectations, and carefully defining the operational criteria for point-giving and schedules of reinforcement.

Develop and Field Test Functional Behavioral Assessment (FBA) and Individualized Behavior Support Plan (BSP) Protocols

While some may consider *all* incarcerated youth as needing tier III (tertiary) supports, our experience is that juvenile justice facilities make limited and relatively unsystematic use of FBA (O'Neill et al., 1997) and BSP protocols. This may be due to poor understanding of the role and contribution of functional assessment in the behavior support planning process; theoretical or practice differences between educators, juvenile justice, and mental health personnel; or misunderstandings about the Individuals with Disabilities Education Act

(The Individuals With Disabilities Education Act Amendment, 1997) requirements for FBA and PBIS. In addition, there is at times a lack of knowledge of what treatment/mental health personnel are doing in regards to FBA and BSP compared with education which can introduce competing or redundant practices and policies. In our experiences, facility staff report that some FBA and BSP practices are only conducted as a reaction to a behavioral incident and not used as a means for preventing problem behaviors.

Develop and Validate a Set of Intervention Fidelity/Treatment Adherence Measures for PBIS Application in Secure JJ Settings

Although implementation fidelity has been a relatively neglected aspect of intervention research (Lane, Bocian, MacMillan, & Gresham, 2004; McIntyre, Gresham, DiGennaro, & Reed, 2007; Sanetti & Kratochwill, 2009), its importance is widely recognized (Carroll et al., 2007; Century, Rudnick, & Cassie, 2010). When no assessments of implementation fidelity are conducted, associating an intervention with desired outcomes and thereby building an evidence base supporting its use is compromised (Kratochwill & Shernoff, 2004; Shadish, Cook, & Campbell, 2002). Implementation fidelity has been defined as "the extent to which the critical components of an intended program are present when that program is enacted (p. 202; Century et al., 2010)" and has been identified as essential for assessing the efficacy of multitiered interventions (Sanetti & Kratochwill, 2009). A fidelity instrument of PBIS implementation features has been adapted and is being field-tested which takes into account 24/7 dimensions and main systems within JJ settings.

The tools we have developed include staff member/FW-PBIS team member self-ratings and direct observation protocols. In addition, we are assessing overall integration and "goodness of fit" with other facility-wide interventions (such as Dialectical Behavior Therapy, Suicide Prevention, Drug and Alcohol Counseling, Aggression Replacement Training, etc.) by building three-tier "intervention menus" at each facility (Jolivette, McDaniel, Sprague, Swain-Bradway, & Ennis, 2012). This provides a method for the facility to put their current and effective practices within the three-tiered framework, delete those practices which are ineffective or not used, and to discuss the entrance and exit criteria for youth who may need a specific practice as well as how an implemented practice will be monitored.

Conduct a Feasibility and Outcome Evaluation of the Entire Set of Materials

We are conducting a comprehensive evaluation of the entire set of materials. It will provide information on knowledge change and

use of the full PBIS staff development materials, as well as data on implementer attitudes, behavioral intentions, and self-efficacy. Finally, we are assessing youth and adult outcome data. In the following section, we describe what we have learned to date with an emphasis on program content and intervention fidelity data.

What Has Been Learned

Adoption Conditions

Our experience to date is that the adoption and implementation strategies for PBIS in secure JJ settings are parallel to those put into practice by general education and alternative schools. These include (a) identifying a small group of initial implementation sites that demonstrate the viability of the approach within the fiscal, political, and social climate of the state or county-level system; (b) securing adequate funding, visibility, and consistent political support; (c) establishing and providing intensive training and coaching to a facility-level leadership team to assess, plan and coordinate implementation; (d) identifying a cadre of individuals who can provide training and coaching support in or across facilities; and (e) designing a system for providing on-going evaluation and provision of performance-based feedback to implementers. Some of our participating facilities have voluntarily adopted the PBIS framework while in other states and locations they have adopted the framework following administrative mandates. A notable difference between "school-only practice" and "facility-wide" PBIS is the team composition. FW-PBIS teams need to include education, probation/corrections, mental health/treatment, and facilities management (e.g., nursing, physical plant, etc.) perspectives, adding to the complexity of scheduling FW-PBIS team meetings, role definition, and building consensus around coordinated intervention systems.

Facility-wide Implementation Systems

Although substantial adaptation is needed for common PBIS implementation practices, they have not been exceedingly onerous or complex. Also, they have been well-accepted by the implementation teams with whom we are working. The adaptations that appear necessary or useful for facility level adoption and implementation include the following:

Universal behavioral expectations. In typical public schools, an "expectation matrix" is developed that labels and defines expected behaviors such as "be safe, be respectful, and be responsible" (Sprague & Golly, 2013). These are based on extensive research on adult perceptions of acceptable classroom behavior and have been widely adopted

in schools across the world (Walker, Ramsey, & Gresham, 2004). We have introduced this practice to secure facilities with success, and the primary adaptation is to define additional areas of the "matrix" to include residential, medical, and other settings unique to a secure juvenile facility. The matrix for long-term JJ facilities can be quite extensive (e.g., >20 columns) given the number of locations and multi-use of locations for various purposes in which youth interact as opposed to smaller detention facilities which more closely mirror typical school settings. For example, in youth rooms, the expectations may include: be aware of privacy of others, put laundry out on assigned days, only have approved personal items in room, report boundary violations, and follow dress code.

Systematic behavior teaching. General education schools develop and present lessons and other strategies to communicate and teach expected behaviors across all school settings (Sprague & Horner, 2012). We have successfully introduced this practice in juvenile facilities. The most prominent adaptation for year round, 24/7 facilities is to coordinate and schedule teaching and communication/discussion sessions across both school and residential settings within a facility. Many facilities have a "unit meeting" to mark the shift change, and the transition youth make from residence to school and school to residence. These have been ideal times for the FW-PBIS leadership teams to present the behavioral expectations and also to communicate any new or changed protocols related to PBIS. In addition, the teaching plans (often referred to as resource guides and protocols in JJ settings) are being used by staff members across facility environments and incorporated into the youth in-take and orientation process. JJ facilities, like schools, are also not accustomed to systematically reviewing and reteaching behavior expectations so it is also necessary to develop a "scope and sequence" or "pacing calendar" to formally schedule what lessons are presented when, and by whom across multiple weeks.

Positive reinforcement systems. As stated earlier, secure JJ facilities commonly implement some sort of point and level system for delivering reinforcement opportunities. We have discovered nearly universal dissatisfaction with their use, and a long list of negative side effects, including some youth "mastering" the system early in their stay, while others languish without ever reaching any of the high value reinforcers available in the upper levels of those systems. Staff members also report inconsistent point delivery, recording, and monitoring. These problems can result in systems that are coercive to both staff members and youth as they negotiate and implement the system. There are some effective ways to integrate the traditional point and

level logic with the tier II CICO intervention (Crone et al., 2010) commonly adopted in the PBIS framework.

Instructional and function-based responses to mild problem behavior and defusing aggressive or escalating behavior. Escalating verbal and physical behavior exhibited by youth seriously undermines proper functioning of school and facility operations. Behaviors such as aggression (e.g., youth-on-youth, youth-on-staff) and serious disruption, non-compliance, and elopement can cause major problems for adults and youth in terms of personal safety and stress, routines, and significantly disrupt the teaching and habilitative processes across the facility. There is no question that staff members need to develop and implement safe and effective plans for managing escalating behavior. The behavior support techniques that work with students who are developing typically will likely not be sufficient for students exhibiting more severe behavior problems, especially those who are prone to escalation and engaging in power struggles. Some (perhaps a majority) of these students have learned to use these behaviors to escape an unpleasant situation such as difficult academic work, being "called out" for off-task behavior, or peer provocation. As such, the child is both a "victim and architect" of this failed pattern of interacting with others (Patterson, 1982).

There are common assumptions that lead staff into power struggles and offer procedures to avoid escalation cycles and de-escalate behaviors. It is important to address the behavior without causing the behavior to escalate. This can be quite a balancing act. Youth who act out repeatedly may not have learned strategies for assessing and addressing a conflict situation, for identifying sources of the problem, generating options, evaluating their options, negotiating with others, and acting on their plans. Such strategies need to be directly taught. Like everyone else, youth with severe problem behavior need to be successful and gain a sense of competence. They will be responsive if appropriate goals can be established that they are likely to achieve. In general, this pattern of behavior can be brought under control if a teacher or staff member can interrupt the behavior chain that leads to escalation early in the cycle. If the escalating behaviors persist despite these measures, the function of the behavior must be examined and a positive BSP to reduce escalating behaviors must be developed and implemented (Colvin, 1999; Sprague & Golly, 2013).

Intervention Fidelity Assessment

A number of tools have been developed to measure implementation fidelity of the forgoing PBIS components and others used in tier II and III interventions, and we have adapted these and other

instruments to fit the JJ-PBIS context. Among these tools are the *Effective Behavior Support Self-Assessment Survey (EBS-SAS;Sugai, Lewis-Palmer, Todd, & Horner, 2000), and the School-wide Evaluation Tool* (SET; Horner et al., 2004). We are in the process of examining the psychometrics of our revised versions of these measures.

We have adapted and renamed the SET (Horner et al., 2004) for use in secure JJ facilities as the Facility-Wide Evaluation Tool (FET). The items work well as a measure of JJ-PBIS implementation and we have found it essential to interview both the school and facility administrator .We have adapted some items from the EBS-SAS (Sugai, Lewis-Palmer, Todd, & Horner, 2000a) as well as other sources to develop a knowledge test for facility team members. Content of the knowledge test covers FW-PBIS items, CICO, FBAs/BSPs, and Transition and Aftercare Systems. Since the EBS-SAS has been shown to be highly correlated with the SET, we are focusing on the FET as the principal fidelity measure for FW-PBIS and we are adapting other fidelity measures to assess implementation of CICO (Everett, Sugai, Fallon, Simonsen, & O'Keeffe, 2011) and FBA/BSP systems.

Potential for Efficacy

In our evaluation study we are assessing the feasibility and promise of efficacy for the entire JJ-PBIS staff development modules. FW-PBIS team members are participating in staff development activities and using the procedures from each module over the course of 12-15 months. We are using a quasi-experimental repeated measures design where each facility serves as its own control. We have collected baseline measures, and are providing training and technical assistance to more than 40 facilities across the United States.

Conclusions and Recommendations

In this article we have described a rationale for adopting and adapting procedures and strategies originally developed for typical schools for implementation in secure JJ facilities. We believe at this point in our research and evaluation program that FW-PBIS implementation is feasible and potentially efficacious for youth and staff members in these facilities. Facility teams in our intervention sample represent a wide range (long- and medium-term incarceration, size, location) of facility types, yet the PBIS protocols we have exposed them to (and supported them to adapt) have been readily accepted and put to use. Our initial concerns about "facility-wide" buy in and implementation routinely fade away as we see committed teams in these facilities embrace and adopt the protocols as their own. In fact, for many of the facilities our staff development has provided a

first-time opportunity for personnel from different disciplines in the facilities to systematically develop and coordinate intervention supports for the youth they commonly serve at the local level based on system-policy adoptions.

PBIS is prescribed as a legal or legislative remedy for inappropriate practices or outcomes in secure JJ facilities (Nelson et al., 2008; Scheuermann, Nelson, Wang, & Turner, 2012; Wang, Nelson, Scheuermann, & Carpenter, submitted). We see these developments as positive and anticipate that our findings may guide future legislative and policy initiatives in this regard.

Perhaps the greatest question that remains to be answered in our work is whether improving conditions and quality of treatment in secure JJ facilities will have an impact on long term behavioral change and generalization to the "criterion" environment of general education school, home, and community settings (Bullis, Walker, & Sprague, 2001). Our observations to date are that although the literature is rife with recommendations concerning transition to community and aftercare (Cowles, Castellano, & Gransky, 1995), the approaches we encounter have poorly developed and patchwork systems of support for post-incarceration youth (Bullis, Skill, Yovanoff, & Stoneburner, 1996). This type of research perhaps has been better articulated and implemented in systems supporting individuals with developmental disabilities (Carr et al., 2002; Harvey, Lewis-Palmer, Horner, & Sugai, 2003). The result of this incomplete system is continued evidence of high recidivism and revocation rates (States, 2011). In our view, we will have successfully completed our mission when this aspect of the JJ system is implemented and shown effective. It is insufficient to simply make the "institution" better in the absence of long-term positive life adjustment for post-incarcerated youth.

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Youth Outcomes Following Implementation of Universal SW-PBIS Strategies in a Texas Secure Juvenile Facility

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Abstract

School-wide positive behavior interventions and supports (SW-PBIS) is a framework for creating safe and effective learning environments and cultivating a positive educational climate. Researchers show that SW-PBIS can improve behavioral outcomes, while demonstrations of a causal relationship between improvements in students' academic achievement and implementation of SW-PBIS remain equivocal. We provide evidence of reductions in behavioral incident reports, improvements in school attendance, and increases in career and technical industry certifications following SW-PBIS implementation in one Texas secure male juvenile correction facility. We argue that these improvements could only be due to SW-PBIS implementation and not alternative explanations (e.g., agency policy/procedure changes, changes in facility or agency leadership, other treatment/rehabilitation programs, validity of measures). We also offer an explanation for these improved gains based on the academic characteristics of incarcerated youth.

Keywords: Youth Outcomes (of PBIS), Secure Juvenile Care, At-Risk Youth

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As of 2002 over 500 schools in the United States had implemented school-wide positive behavior interventions and supports (SW-PBIS; Sugai & Horner, 2002) with now more than 18,000 schools adopting SW-PBIS by 2012 (R. Horner, personal communication, September, 2012). As these numbers indicate, SW-PBIS is receiving endorsement as a framework for creating safe and effective environments for learning. However, the primary focus of education remains on academic achievement. The intended outcome of SW-PBIS is a decrease in problem behavior so that an effective learning environment can be established (Sugai & Horner, 2009).

The effects of SW-PBIS on student behavior have been studied in various contexts and with different populations. SW-PBIS has been shown to decrease negative behaviors measured by office discipline referrals (ODRs; Metzler, Biglan, Rusby, & Sprague, 2001; Sherrod, Getch, & Ziomek-Daigle, 2009). Apart from overall reductions in ODRs, researchers have studied specific settings within schools, including the cafeteria, hallways, and playground. Evidence supporting the effectiveness of SW-PBIS in reducing problem behaviors is convincing. However, given the emphasis placed on academic achievement in state and federal education policy, can researchers make a connection between improved behavior and academic achievement?

Positive Behavior Interventions and Supports and Academic Achievement

Several researchers are gathering empirical support for the improvement of academic achievement following adoption of SW-PBIS (Bradshaw, Mitchell, & Leaf, 2010; Horner et al., 2009; Lassen, Steele, & Sailor, 2006; Luiselli, Putnam, Handler, & Feinberg, 2005; Menendez, Payne, & Mayton, 2008; Muscott, Mann, & LeBrun, 2008). These researchers present some positive findings, but not all of the evidence is consistent. Reading and mathematics achievement, as measured by standardized test scores, have been shown to increase following the implementation of SW-PBIS (Luiselli et al., 2005; Menendez et al., 2008).

In contrast to these findings of improvement, other researchers have reported mixed results. Muscott et al. (2008) found achievement gains in both math and reading in some of the 22 schools they examined. However, improvements were not found in 6 of the 22 schools in mathematics and 13 schools in reading levels. Lassen et al. (2006) found an initial decrease in reading scores after implementation of SW-PBIS, but the test scores improved significantly after the first year.

In two randomized control studies, academic achievement following SW-PBIS implementation is unclear. Bradshaw et al. (2010)

found no statistical difference between schools in the treatment group (i.e., SW-PBIS schools) and comparison schools in academic achievement in reading or mathematics. Horner et al. (2009) found the difference between assessment prior to implementation (T1) and during implementation (T2) were statistically significant for the treatment group. Additionally, they observed a statistically significant difference between the treatment group and control group at T2. However, Horner et al. failed to find a statistically significant Time × Condition interaction effect.

Interpretation of Academic Outcomes

Despite differences in findings among studies, there appears to be some evidence that students' academic achievement improves during and after implementation of SW-PBIS. SW-PBIS is a framework for improving behavior, so why would it affect academic achievement? As Algozzine, Wang, and Violette (2011) attest, "It is difficult to learn when you are spending more time in discipline-related interactions than in those related to learning academic content" (p. 3). A few researchers have examined how SW-PBIS influences time spent on academic-related versus behavior-related, interactions (Muscott et al., 2008; Scott, 2001; Scott & Barrett, 2004).

As seen in the research on behavioral outcomes after implementing SW-PBIS, ODRs and suspensions decreased significantly. These decreases in punishment result in essential increases in time in the classroom. Muscott et al. (2008) found that some students gained 89 days and 21 extra days of instruction for teachers in elementary schools, to students gaining 1,251 additional days in the classroom and 148 instructional days for middle schools, and high school students gained 541 days of instruction and teachers gained 126 days of teaching over the implementation period. Scott (2001) found declines in suspensions led to a gain of more than 775 classroom hours compared to the previous year. Additionally, Scott and Barrett (2004) observed a gain during the first year of implementation of 27.7 school days and 31.2 days gained during the second year of SW-PBIS implementation.

In summary, problem behaviors improve after the implementation of SW-PBIS. After adopting SW-PBIS, schools experience dramatic gains in time spent in the classroom and instruction rather than on disciplinary activities. However, the conclusions about the effects of SW-PBIS on increasing academic achievement remain equivocal. Nevertheless, SW-PBIS is a behavioral intervention. The focus is on facilitating the development of positive behaviors while decreasing the opportunities for problem behaviors, rather than improving

academic achievement directly. The purpose of the current study was to examine the impact of SW-PBIS on improvements in both behavior and academic achievement in a male, secure juvenile justice facility in Texas.

Method

In 2009, the Texas Legislature enacted H. B. 3689 (Texas Legislature Online, 2009) requiring that the Texas Youth Commission (TYC; now the Texas Juvenile Justice Department, TJJD) initiate a plan to improve behavior in all its secure care facilities. Specifically, this legislation required that: "[the TYC] shall: (1) adopt system-wide classroom and individual positive behavior supports that incorporate a continuum of prevention and intervention strategies." Although the initiative was implemented in 10 secure care facilities, the current study focuses on a single facility.

Participants

Under the authority of the Texas Family Code, the TJJD serves youth who have been adjudicated delinquent of felony offenses and committed to the agency by a juvenile court. For a youth to be committed to TJJD, the delinquent act must occur when the youth is between 10 and 17 years of age and TJJD may retain jurisdiction over a youth until his or her 19th birthday. The youth sent to TJJD are the state's most serious or chronically delinquent offenders. In FY 2010, the average daily population was 264, while in FY 2011 it was 227 (a decrease of 14%). Comparisons of this population with overall TYC and with U.S. demographics are provided in Table 1.

Measures

All data were de-identified and provided by the official agency database.

*Average daily population***.** The average daily population of students assigned to the facility.

*School behavior incidents***.** School behavior incidents were coded into three categories: (1) a behavior incident report without a referral to security; (2) a behavior incident report with a referral to security, but without an admission to security; and (3) a behavior incident report with a referral and admission to security.

School attendance. Average daily attendance was computed by dividing the number of students present at 10 a.m. by the total number of students on the campus that day. Time lost to discipline problems was calculated by summing the total number of minutes of school missed across all students (i.e., unplanned missed days in minutes,

Table 1
Statistics for Juveniles in Residential Correctional Placement

Variable	GSS	TYC	U.S.
Male	100%	89%	85%
Hispanic	52%	48%	24%
African-American	27%	31%	32%
Anglo	21%	19%	35%
Median age at admission	16	16	[a]
Median reading achievement level	6th grade	6th grade	[b]4th grade
Median math achievement level	5th grade	5th grade	5th grade
Eligibility for special education services	32%	35%	[c]30% LD; 47.6% ED
More than one felony adjudication	35%	35%	35%

Note. Unless otherwise noted, the national statistics were found in Sedlak, A. J., & Bruce, C. (2010). [a] Median age at admission: 51% are 16-17, 15% 18-20, and 1% 10-12. [b] Hodges et al. (1994). [c] LD = learning disability, ED = emotional disturbance. National Collaborative on Workforce and Disability (2010)

not holidays or planned days with no school) summing the total number of minutes of school missed because of discipline problems then dividing the number of minutes missed due to discipline problems by the number of minutes missed total.

*Industry certifications***.** The Carl D. Perkins Career and Technical Education Act of 2006 requires each eligible agency (e.g., the Texas Education Agency, 2007) to identify in its State Plan valid and reliable core indicators of performance for career and technical education students. A certificate is one of the key measures of the core indicators on the postsecondary level and the number of industry certification earned was totaled.

Procedure

Prior to implementation in 2011, PBIS practices were not in place. A facility SW-PBIS team was trained in three cohorts in the fall of 2010, followed by training of facility staff. Fidelity of staff training was measured at 83%. Formal rollout of SW-PBIS began in the education program in January, 2011, guided by one internal coach and two

external coaches. Implementation fidelity was measured using the Facility Evaluation Tool (FET; Nelson, 2009) with an overall score of > 80% indicating acceptable fidelity (for a detailed description of implementation see Scheuermann, Nelson, Wang, & Turner, 2012).

Results and Discussion

When comparing one year data of no SW-PBIS implementation to a year of SW-PBIS implementation, there were reductions in total incidents (46%), incidents without a security referral (41%), incidents with a security referral but no admission (56%), and security referrals with an admission (35%); 21% increases in average daily school attendance; and an increase of 131 industry certifications earned (see Table 2).

Although the result data are descriptive, the behavioral and academic improvements observed are attributed to SW-PBIS implementation. First, during these two years there was no change in facility leadership (superintendent or principal) or other academic reforms. Second, changes were not due to regression to the mean, because, while that might be a plausible explanation for the improvements in behavior, it is not for the improvements observed in attendance and academic achievement. Third, improvements were not related to the other ongoing treatment modality, because behavior got worse when it was initially implemented (FY 2009), while school attendance and academic achievement were both poor. Fourth, changes were not related to "validity" of the measures of academic achievement. While there are concerns that other measures of academic achievement (i.e., course grades, GED attainment, standardized test scores) might be skewed or biased, certifications are awarded by outside entities, not the agency, based on a common criterion.

The impact of SW-PBIS on youth behavior was not unexpected, but a positive effect on academic achievement was found when prior study results did not. We believe this may be due to the differences between secure juvenile facility environments and general education settings and how achievement was measured. The student population of juvenile justice (JJ) facilities is both at higher risk of behavioral problems as well as academic underachievement with approximately half identified with educational disabilities (Gagnon, Barber, Van Loan, & Leone, 2009; Quinn, Rutherford, Leone, Osher, & Poirier, 2005); two-thirds of males and three-fourths of females meeting diagnostic criteria for one or more psychiatric disorders, not including conduct disorders (Coalition for Juvenile Justice, 2000; Cocozza & Skowyra, 2000; Teplin, Abram, McClelland, Dulcan, & Mericle, 2002); and that the educational status (e.g., academic achievement, school

Table 2
Pre- and Post-PBIS Results

	Pre-SW-PBIS (FY 2010)	1st year of SW-PBIS implementation (FY 2011)
Average Daily Population	264	227
Total incidents (year-over-year percentage change)	270%	-46%
Incident report without security referral (year-over-year percentage change)	174%	-41%
Incident report with security referral but without security admission (year-over-year percentage change)	299%	-56%
Incident report with security referral and admission (year-over-year percentage change)	214%	-35%
Average Daily Attendance	77%	98.2%
Industry certifications	16	147

attendance, and school completion) of these youth is significantly below that of same-age peers (Gagnon & Richardson, 2008). It is possible that youth histories of poor performance with traditional academic tasks measured in traditional, standardized manners and settings may have lowered the motivation to achieve in these traditional ways. However, industry certifications provide youth with career and technical skills that are more tangible and maybe more meaningful and motivating for them; thus, the improved academic achievement. In addition, SW-PBIS improved the ecology and safety of the facility providing increased instructional time; consistent with other findings from typical settings (Scott, 2001; Scott & Barrett, 2004). Also reported, but not directly measured in this study, was the impact of perceptions of safety by correctional staff (and to a lesser extent, teachers) that impacted educational programming. For example, staff perception of teacher safety was low and they would call in sick causing insufficient numbers of staff needed to transport youth from dorms to school (C. Carpenter, personal communication, September, 2011) which resulted in school not being held.

PBIS is a viable approach for improving school behavior and offers a framework for practices that may improve behaviors directly related to academic performance. In the Texas initiative, significant attention was directed to improving school instructional and management practices using Universal (tier I) strategies (e.g.,

establishing clear expectations for behavior, including completion of academic tasks; implementing positive reinforcement contingencies for academic task completion and active participation in academic activities). Our findings support the conclusion reached by other researchers (Algozzine et al., 2011; Scott, 2001; Scott & Barrett, 2004) that SW-PBIS can be linked to more time in classroom instructional settings; however, we acknowledge that just attending school is a necessary, but not sufficient, step in learning. As Algozzine et al. (2011) point out, the assumption that a direct, causal relationship exists between behavior and academics, while widely shared, is not supported by the research. In other words, if improved behavior is the goal, it should be specifically taught and supported. In this study, the implementation of SW-PBIS resulted in improved behavior and school engagement.

Limitations and Future Research

The main limitation of the study was descriptive and aggregated data evaluated at the facility level, presented which may mask effects captured with multilevel and other types of longitudinal analyses (e.g., latent growth modeling, discrete-time survival analysis). However, the natural complexity of multilevel, longitudinal analyses is compounded in JJ settings by the constant turnover rate of students, and make such analyses not always possible. Despite these analytic challenges, future researchers should attempt to model behavior and academics as parallel processes (i.e., time-varying covariates) in multilevel analyses. These longitudinal analyses could include enough time points so that a piecewise latent growth model can be fit with multiple points pre-implementation and multiple points post-implementation to assess both amount and rate of change. These models could include time invariant covariates (i.e., gender, race), as well as the time-varying covariates (which would include, but not limited to, behavior-academic parallel process). These longitudinal models could also test "lagged" effects (those that occur later) along with the obvious simultaneous effects. Also, fitting mixture (i.e., latent class) models, including zero-inflated Poisson (ZIP) models, could enhance these models. These mixture models could help reduce the complexity of the analyses by identifying unobserved/unidentified (latent) classes of individuals with shared characteristics. ZIP models would help differentiate patterns for youth who exhibit behavior problems from those who do not. These sophisticated statistical modeling techniques will help to statistically isolate effects. Methodologically, however, these are usually a poor substitute for isolating effects through random assignment. Yet, random assignment in secure JJ facilities

may not, by itself, ensure equivalent groups on all characteristics except the treatment effect, because youth are not randomly assigned to facilities, but rather are intentionally assigned based on specific criteria (i.e., mental health treatment, gang activity, etc.). In the case of secure JJ facilities, random assignment would have to occur at the facility level, while also statistically controlling for characteristics of youth who might be differentially assigned to facilities. Propensity score matching is an analytic technique that would help in this situation.While we have found improved behavior, attendance, and academic achievement in a secure JJ setting, the evidence base in JJ settings will be improved through more rigorous design and analytical research methods.

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An Exploratory Survey of the Perceived Value of Coaching Activities to Support PBIS Implementation in Secure Juvenile Education Settings

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Abstract

Coaching is one component used to facilitate implementation of positive behavior intervention and supports (PBIS) with fidelity, and to help bridge the gap between training and implementation in real-world settings. This exploratory survey examined elements related to PBIS coaching as support for developing and implementing a statewide PBIS initiative in the educational settings of secure care juvenile correctional facilities. Facility PBIS team members and external PBIS coaches were surveyed to solicit feedback on the need for and value of specific coaching activities and factors that acted as facilitators and barriers to PBIS implementation. Both groups of respondents reported that administrator support, time to carry out PBIS responsibilities, and access to coaching and technical assistance are important for effective implementation of PBIS in secure settings.

Keywords: Positive Behavior Interventions And Supports, PBIS, Coaching, Juvenile Justice

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Positive behavior interventions and supports (PBIS) is a framework for applying a continuum of evidence-based practices to improve academic and social outcomes for all students (Sugai et al., 2010). As a systems-change model, PBIS is being implemented in over 18,000 schools across the nation in public schools at all grade levels, as well as in alternative schools, and other types of educational and residential programs for children and youth (R. Horner, personal communication, 2012). School-wide PBIS is typically organized as a multitiered model focusing on three overarching goals: (1) prevention of new cases of challenging behaviors by creating clear and predictable environments throughout a school (or facility), (2) early intervention for emerging behavior problems, and (3) intensive intervention for youth who exhibit chronic or severe behavioral difficulties (Sugai et al., 2010). Design and implementation of a tiered system of interventions typically follows the PBIS logic model developed and promoted by the Office of Special Education Programs Technical Assistance Center on Positive Behavioral Interventions and Supports (www.pbis.org). A rapidly expanding body of evidence supports the efficacy of this model for producing desirable academic and social outcomes (Bradshaw, Mitchell, & Leaf, 2010; Horner et al., 2009; Office of Special Education Programs, 2009).

As evidence documenting the success of PBIS for improving student discipline in public schools accumulates, this model is being extended into non-traditional settings, including secure juvenile correctional settings (Jolivette & Nelson, 2010). There are several reasons for this movement, including calls from advocates for more responsive programming to better meet the mental health needs of adjudicated youth (Gagnon & Barber, 2010), the special education needs of adjudicated youth (Quinn, Rutherford, Leone, Osher, & Poirier, 2005), and the failure of juvenile correctional programs to effectively rehabilitate over half of the population of incarcerated juveniles (Snyder & Sickmund, 2006). Each of these populations responds more favorably to the type of positive, instructional programing reflected in PBIS than to punishment-oriented approaches (Lipsey, 2009). Another reason for this movement toward a positive behavioral approach is in response to legal actions over abusive treatment in secure facilities (Grisso, 2007). Legislative action in Texas directed the state juvenile correctional agency to implement PBIS in the education programs of all state secure juvenile facilities, with the goal of reducing the amount of time youth were removed from classes due to disciplinary reasons.

In addition to examinations of the overall effectiveness of PBIS and calls for implementing it in non-traditional settings, researchers

have begun investigating factors that contribute to fidelity, sustainability, and scalability of PBIS practices (Sugai et al., 2010). That is, focus has shifted from the question of "Does PBIS work?" to "What are the specific practices that will increase the likelihood of success, fidelity, and sustained implementation?" Fixsen, Naoom, Blasé, Friedman, and Wallace (2005) conducted a substantive review of implementation research across multiple domains (i.e., mental health, medicine, juvenile justice, manufacturing, social services, child welfare) and found that specific intervention practices and processes appear to be essential facilitators of implementation success, and are applicable across domains and types of interventions. One facilitator they identified is coaching. PBIS coaching has been described as an essential element of building and sustaining implementation with fidelity (Horner, 2009; Kincaid & March, 2011; Scott & Martinek, 2006). With any educational initiative, coaching appears to be a critical component in acquiring new skills and producing generalized behavior change (Joyce & Showers, 1982). Coaching occurs on site after initial training has been completed, with the people implementing the new skills, and includes active and repetitive delivery of prompts, modeling, and positive feedback to ensure fidelity of implementation, and corrective feedback to reduce implementation errors (Horner, 2009).

In this paper, we discuss the role of coaching in implementation of PBIS in secure care juvenile facilities operated by the Texas Juvenile Justice Department (TJJD). We describe the coaching model used to facilitate PBIS knowledge acquisition and implementation, and we present results of a survey of participants in this agency-wide initiative. This survey was designed to solicit feedback regarding coaching needs and beneficial coaching activities.

Coaching to Facilitate PBIS Implementation

According to Horner (2009), coaching helps PBIS teams increase their understanding of positive supports, maximize team competence, while emphasizing staff accountability, guiding proactive processes, and building consistency with implementation of PBIS principles/practices. Coaching occurs both on- and off-site after the initial training has been completed, as practitioners attempt to implement newly learned skills. Scott and Martinek (2006) describe PBIS coaching as necessary for implementation with fidelity because the team and implementers must adapt the framework and practices selected to the unique characteristics of their own settings, as PBIS is not a one-size-fits all prescription. This is particularly true for PBIS implementation in alternative education settings, given that the initial conceptualization and evaluation of PBIS has been in traditional public schools.

Along with expertise in the skill(s) being coached, effective coaching requires a specific skill set of its own. Coaches for any skill area need to understand the importance of partnerships, multiple perspectives, authentic listening, reflection, positive feedback, and reciprocity (Knight, 2007). PBIS coaches need to (a) understand PBIS components well enough to guide teams with planning and implementation, (b) be sufficiently familiar with data collection tools and systems to guide teams in data-driven decision making, (c) communicate effectively with all stakeholders, (d) be able to facilitate team meetings, and (e) demonstrate thorough knowledge of evidence-based interventions (Havercroft, Miller, & Howland, 2011). Further, external coaches (i.e., those not physically located in the implementation setting) may need to provide supports from afar, and must determine the appropriate frequency and timing of visits to maximize their impact (Scott & Martinek, 2006). To effectively apply these skills in secure facilities, coaches should understand the physical, logistical, and staffing characteristics unique to JJ schools.

In 2009, the Texas legislature passed legislation requiring PBIS to be implemented in education programs of all Texas secure juvenile correctional facilities, leading the Texas Juvenile Justice Department (TJJD) to seek guidance from national PBIS experts for training, technical assistance, implementation support, and evaluation. TJJD also contracted with Texas State University for coaching services to facilitate implementation. A total of seven full- or half-time external PBIS coaches worked with facility PBIS teams and internal coaches (one to two teachers or juvenile corrections officers per facility) to plan and implement universal level systems and supports and to train facility staff in PBIS. In addition, four special education coaches provided tertiary-tier supports for youth with disabilities who exhibited the most serious behavioral challenges. At the start of the initiative, ten secure facilities were involved and supported by coaches; by the end of the project, six facilities were operational due to agency reorganization and facility closures. This coaching model became the primary source of PBIS implementation support within the agency.

All external coaches had graduate-level training and experiences in PBIS, applied behavior analysis, and special education. Responsibilities of the PBIS coaches (six half-time, one full-time) included (a) making monthly facility visits (visits occurred more often as needed), (b) maintaining regular communication with internal coaches and school administrators, (c) attending team meetings, (d) guiding and assisting in the development and implementation of universal systems, (e) working with teachers to facilitate implementation of classroom PBIS systems, (f) conducting or assisting with facility-level PBIS

trainings, and (g) conducting PBIS assessments. The full-time coach had additional responsibilities, such as assisting other coaches and developing training and other materials.

The special education coaches (two half-time, two full-time) were responsible for conducting behavioral assessments and developing interventions for youth who were receiving special education services and who were identified by education program administrators as having the greatest need for behavioral supports, based on disciplinary data. These coaches also assisted in ensuring that individualized interventions were implemented with fidelity, that universal level PBIS components were correctly administered, and they administered the Benchmarks of Quality (BoQ) and Facility-wide Evaluation Tool (FET). To provide maximum support for facility PBIS teams, special education coaches sometimes assisted with PBIS implementation, such as answering questions, attending a PBIS team meeting if the PBIS coach was unavailable, or providing feedback about PBIS elements that would benefit individual youth with whom the special education coaches were working.

The internal facility PBIS coaches comprised the third group of coaches. Their responsibilities included organizing meetings, coordinating PBIS activities, ensuring that meetings followed established protocols, overseeing planning and implementation, communicating with external coaches, ensuring progress monitoring of PBIS activities through monthly reviews of behavioral data, and coordinating and helping to conduct PBIS fidelity assessments. The internal coaches were selected by the school principals or volunteered for the position. All internal coaches attended the initial training provided at the start of the initiative, and most had been through previous PBIS training provided by state regional education service centers. The majority of internal coaches were not given dedicated time for PBIS duties.

The project began with training for facility PBIS teams, which were composed of volunteers within each facility of school administrators, teachers, diagnosticians, paraprofessionals, security officers, counselors, and the internal coach(es). Once all teams were trained, universal level PBIS implementation began at each facility in January, 2011. Coaching supports were provided from July 2010 through September 2011. At the end of the coaching period, we examined the perceived value of the PBIS coaching activities from PBIS team members', facility administrators', and internal and external coaches' perspectives including any factors they perceived to facilitate or limit effective implementation of PBIS in the education program of their facility. In addition, we sought input about whether the amount of coaching

provided was sufficient to meet needs during the initial planning and implementation stages.

Method

Setting and Participants

The first participant group included members of PBIS leadership teams of each facility (n = 110): general and special education teachers, paraprofessionals, counselors, diagnosticians, juvenile correctional officers (JCOs), school administrators, and internal PBIS coaches. The second group was comprised of the 11 external coaches.

Survey Measures

Surveys were designed to assess PBIS team members' need for assistance in implementing universal-level (tier I) systems. In addition, questions were developed to determine facilitators and barriers to coaching based on current professional literature (Gagnon, Rockwell, & Scott, 2008; Houchins, Puckett-Patterson, Crosby, Shippen, & Jolivette, 2009) and the experiences of TJJD coaches and the coaching coordinator. Different surveys were used for PBIS team members and external coaches; content for each reflected participant roles and perspectives. Surveys were piloted with four colleagues familiar with PBIS but who were not part of the current project. The survey was revised based on their feedback regarding overall content (a copy of each survey may be obtained from the author). The final versions were placed on SurveyMonkey™, where participants could complete them anonymously.

PBIS team members' survey. This survey assessed PBIS team members' perceived needs for coaching and perceptions of external coaching support. It consisted of 33 forced choice questions in 3 sections: (1) Need for Coaching Supports, (2) Value of Coaching Activities and Facilitators and Barriers to Effective Coaching, and (3) Amount of Coaching Provided.

Section 1 listed 18 components of PBIS, primarily tier I components, but also a few items about tier II or tier III supports. Participants rated the support they required for each: (1) no support, assistance, and/or information needed; (2) moderate level of support, assistance, and/or information needed; (3) a high level of support, assistance, and/or information needed; or (4) not applicable. Respondents could add comments for each item.

Section 2 consisted of 13 statements describing the coaching activities used by external coaches. Respondents evaluated the usefulness of each activity as: (1) not useful or not needed; (2) moderately useful or needed some of the time; (3) very useful, needed frequently;

and (4) not used. Two additional questions in this section listed 16 factors that may have increased or interfered with the effectiveness of external coaching. Respondents could select as many of these items as they wished, and they could add comments. Section 3 consisted of two questions to evaluate the frequency of coaching visits. First, participants rated the ideal frequency for coaching visits: (1) weekly, (2) biweekly, (3) monthly, (4) only as needed – determined by the team, or (5) only as needed – determined by the coach. The second question was open-ended, asking for comments about the ideal amount of coaching desired.

External coaches' survey. A separate survey was used to analyze the experiences of the external coaches and to solicit their feedback on coaching facilitators and barriers. The coaches' survey was similar to the team members' survey in organization and content, but included items not on the team members' survey that were applicable to the coaches' roles and experiences. Section 1 asked coaches to evaluate the level of support needed by their facility's PBIS team for each of 21 statements about the universal-level components. Section 2 included 23 questions using a two-part rating scale in which respondents were asked to rate the usefulness of each coaching activity for the teams (not useful, moderately useful, very useful, not used); and the convenience of the coaching activity (not convenient, moderately convenient, very convenient).

Sections 3 and 4 asked respondents to list other coaching activities in which they engaged but that were not previously addressed in the survey, and coaching activities that may have been helpful for the team but which were not used. The same dual rating scale (usefulness and convenience) was used for each additional coaching activity that they generated.

Section 5 consisted of 6 questions. The first three questions addressed respondents' perceptions regarding the amount of coaching provided, one question asked about what they considered to be the ideal amount of coaching, and two items provided a list of possible coaching facilitators and barriers. Respondents could provide written comments for all questions.

Procedures

An invitation to participate in the survey was sent via electronic mail to 110 facility PBIS team members at the six facilities and 11 external coaches. The email explained the purpose of the survey, assured anonymity, and provided a link to access the survey on the Internet. Two weeks after the initial mailing, a second email was sent to everyone on the original mailing list. The second request

included a reminder about the survey and the survey link. After an additional two weeks, the survey was closed and analysis of survey results began.

Of 110 invitations sent to PBIS team members, a total of 24 (21.8%) completed the survey. External coaches were asked to complete one survey for each facility to which they were assigned. Eight of a possible 20 surveys were completed (40%). Survey results were analyzed by calculating frequency and percentage of responses for forced-choice items. Comments provided were for most questions from about 25% of respondents. The comments were examined for trends within each question's response set as well as across all survey questions.

Results

Results of PBIS Team Members' Survey

Section 1 inquired about level of support needed during planning and implementation of each of 18 specific elements of SW-PBIS. The majority of respondents selected either "moderate" or "high" levels of support needed for planning and implementing each of the PBIS elements. One or more respondents considered "no" support needed for 14 of the 18 elements. The majority of comments were less about knowledge of the PBIS components than barriers to implementation. Respondents expressed concerns about a disconnect between expectations of agency leadership, technical assistance partners, and external coaches versus the day-to-day "realities" of facility environments. Other concerns related to lack of buy-in and support among facility staff. Finally, some respondents described dissatisfaction related to the external coaches' knowledge of juvenile offenders in secure settings. For example, one respondent wrote, "Our external coach was pretty clueless as to the situation our students are in." Many of the written responses described philosophical and logistical obstacles to PBIS implementation in secure care facilities. Examples included, "this is hard to accomplish due to various shifts and lack of common time," "our team is still not representative of the facility," "chronic problem of getting staff to attend," and "problems in this area [acknowledgement systems] are facility issues."

A few respondents (3 to 4 of the 23 or 24 respondents on these items) reported needing no support for some of the arguably more technical aspects of PBIS, such as tier II or tier III supports, or developing assessment procedures for youth receiving supports at these tiers. Comments provided for these items help explain this, such as "did not get this off the ground," "still working on this," and "we already had this in place."

Section 2 was "Value of PBIS Coaching Activities." The majority of respondents reported coaching as "moderate" to "very" useful while implementing PBIS. "Evaluating and providing feedback on PBIS implementation" was rated as "very useful" by 12 out of 23 respondents. Other coaching activities that received the most "very useful" ratings included "Evaluating and providing feedback on PBIS plans and artifacts" (11 of 23) and "Providing resources for individual staff and/or PBIS team" (11 of 24). The comments for Section 2 indicate time as one factor that put limitations on the value of external coaching activities. Respondents commented "it was very hard to get the team together and very hard to get an administrator to make a decision when things were proposed" and "time for planning and implementation is needed even more than in-person visits." The coaching activity that garnered the most comments was about training for the PBIS team and/or staff. Four of the five respondents' comments pertained to the need for more training.

In addition to their perceptions regarding the value of coaching, team members were asked to determine the ideal frequency for external coaches' visits. The most common responses from the 23 respondents were bi-weekly (six respondents), monthly (seven), and as needed and determined by the team (eight). Comments included: "more coaching in the beginning, then tapering off," and "we probably need weekly visits, but only have time for monthly visits."

The last part of Section 2 requested PBIS team members to identify facilitators and barriers that influenced the effectiveness of coaching support. The three most frequently identified facilitators were "administrator support for the PBIS initiative" (16 out of 21 respondents selected this), "external coach available by email and telephone" (15), and "external coach was available in person" (13). The three most frequently cited barriers that interfered with coaching support were "insufficient time for PBIS duties due to job obligations" and "insufficient buy-in from correctional staff" (13 out of 22 respondents), and "other agency initiatives interfered with PBIS" (11). In their comments, one team member wrote, "The coach did a good job. My big complaint is adding this to the 500 other things I'm supposed to be doing. When am I supposed to plan lessons or grade papers?"

Results of External Coaches' Surveys

The majority of external coaches rated 9 of the 19 PBIS elements as needing high levels of support during the development and implementation process, with teaching about PBIS, identifying reinforcers, and building buy-in among staff receiving the highest ratings from 7 of 8 respondents. Generally speaking, coaches indicated that team

members required moderate levels of support across all tiers. As for support with tier II and tier III components in particular, coaches commonly indicated, "teams not ready for that component". Part 2 of the coaches' survey asked respondents to evaluate the usefulness and convenience of coaching activities. Those rated most useful were in-person visits (5 of 8 respondents) and evaluating and providing feedback on plans and artifacts (6 of 8 respondents). The item rated both very useful (6 of 8 respondents) and very convenient (7 of 8 respondents) was frequent email contact with the internal coach. "Providing feedback to school administrators" was considered "not useful" by 4 of 8 respondents. Responses to the remaining coaching activities were more evenly distributed between moderately and very useful.

Part 3 of the coaches' survey allowed respondents to list other activities they employed that were not previously identified. Comments included assisting individual teachers in using positive reinforcement in their classrooms, aiding understanding of how PBIS aligned with the agency's treatment program, and acknowledging staff participation in the initiative. Part 4 asked coaches to identify activities that would have been useful, but were not used. The most frequently cited was on-going training and assistance in implementing tier I and II supports. In Part 5, 7 of 8 coaches strongly agreed that frequent facility visits were needed, with 6 respondents indicating weekly visits as the ideal frequency.

Finally, coaches were asked to identify facilitators and barriers to providing coaching support. All eight coaches identified guidance from the university supervisor as a facilitator, followed by having an effective PBIS team in place (7 respondents) and an internal coach who is knowledgeable with regard to PBIS (6 respondents). 8 of the 17 potential barriers listed on the survey were selected by 6 or more of the respondents; these pertained to lack of buy-in, active resistance, competition with other agency initiatives, and insufficient central office leadership.

Discussion and Recommendations for Future Research

Providing coaching support to enhance fidelity is important for any setting in the early stages of PBIS planning and implementation, and findings from our surveys may help inform coaching practices in general, and juvenile justice programs in particular. The low number of responses to this study is a limitation we attribute to shift-related time constraints of direct care staff that made it difficult to complete the computer-based survey. Though the types of activities described here are not significantly different from coaching provided in public schools, we believe the findings provide insight into the role of PBIS coaching in non-traditional settings. Therefore, it may be pos-

sible to extrapolate findings from this study to the PBIS coaching literature in general, including coaching in alternative educational settings. Several themes emerged from team and external coach responses which support literature on adopting the PBIS framework in alternative educational settings (e.g., Jolivette & Nelson, 2010).

A common theme across respondents was the importance of buy-in from both administrators and staff. This is consistent with the recommendation for development of staff support as critical to PBIS success (Feuerborn & Chinn, 2012). The logistics of implementation across a large geographic area with several diverse facilities and the pressure to meet legislatively set timelines meant important elements to success (e.g., building buy-in across personnel and time) might not have received the attention they deserved. Future researchers may wish to explore buy-in requisites for the array of professionals present in alternative settings, including the level of buy-in associated with implementation success.

Another common theme among respondents was the need for further training. The majority of staff participating in this initiative represented non-educational professions. Additionally, the treatment philosophy prior to PBIS was correctional and cognitive in nature, focusing on addressing "thinking errors" that resulted in sanctions for unacceptable behavior. PBIS required a substantial philosophical shift and a new set of skills for most employees. The need for around-the-clock staff posed additional challenges with regard to scheduling as well as budgetary considerations when staff attended training outside their normal work hours. Consequently, trainings were limited and may not have been adequate to develop fluency across all personnel. Future researchers should consider that current training models might not be sufficient in alternative settings. Research is needed to identify optimal frequency, duration, and formats for training of largely non-educational professionals in non-traditional settings who hold intervention philosophies that are likely counter to those on which PBIS is founded.

Concerning barriers, respondents cited insufficient time to devote to PBIS activities as a primary obstacle to implementation. As in traditional settings, planning time for internal coaches and teams should be viewed as a requisite for successful PBIS implementation. Further study should identify creative ways to provide planning time and communication means between team members from various shifts, with consideration for staffing and budget constraints. Another common barrier cited by both team members and external coaches was conflict or confusion about integrating PBIS with other agency initiatives. In the complex environments of secure care facilities, a myriad of programs are implemented in attempts to achieve

education, discipline, treatment, and safety goals. Future research should address strategies for identifying the goals, philosophies, and practices associated with each program in use, and for aligning and integrating all programs with PBIS philosophies and practices.

Finally, access to coaching was one of the top three facilitators identified by both team members and external coaches. Team members commented favorably about having coaches available in person and via email and telephone. External coaches reported needing technical assistance and guidance from the university supervisor, despite their knowledge and skills with PBIS, perhaps because of their limited experiences in juvenile justice settings. Coaches in correctional facilities should understand the goals and mission of the agency, systems and programs already in place, and the fact that facility staff represent varied professional roles, responsibilities, and training. Perhaps the more atypical the environment, the more important this knowledge becomes. Future studies of coaching should evaluate specific skills required for atypical environments beyond those related to a basic knowledge of PBIS.

Several limitations of this study should be noted. First, the low rate of responses reflecting opinions of individuals in a single state's juvenile correctional system limits generalizability. Second, this study evaluated coaching over a relatively brief period of time during which there were multiple, significant organizational changes. The pace of planning and implementation to meet the requirements of the legislative mandate and/or the uncertainty about facility closures may have affected perceptions of coaching activities and coaching needs. Third, respondent opinions may not be representative of all TJJD staff in terms of coaching needs during initial stages of PBIS. Fourth, responses reflect participant opinion and may not correspond with objective assessment of PBIS practices. Finally, determining how well participants understand each item is not possible in survey research. Future researchers should include strategies for increasing response rate or solicitation of feedback through focus groups.

Despite these limitations, we believe our findings provide an initial examination of PBIS development, implementation, and support in settings that typically do not operate in public view. Agreement between external coaches and teams on several aspects of coaching activities, facilitators, and barriers, suggests that these findings may be relevant for PBIS coaching in other alternative settings. As implementation of facility-wide PBIS continues to expand, attention must be paid not only to how PBIS is applied in those settings, but also to specific ways in which training and support should vary from that which is commonly employed in traditional schools.

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PBIS in Restrictive Settings: The Time is Now

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Abstract

One of the main purposes of alternative education, residential facilities and our nation's juvenile justice restrictive settings is to provide the youth who find themselves in these settings an opportunity to redirect their lives and receive the supports and skills they need to have successful and productive futures. While this has not always been the mindset or approach within restrictive settings, there has been a notable turn away from punitive approaches to rehabilitation and a push toward positive approaches in the juvenile justice field. This article highlights how the positive behavior interventions and supports (PBIS) framework can promote the goals within restrictive settings and meet the needs of the youth residing within them, including: (1) safety for staff and youth; (2) social, behavioral, educational, vocational, and other skill acquisition; and (3) youth responsibility and a desire to connect with their communities. The discussion explores the different agencies and organizations that are promoting the use of PBIS in the juvenile justice system. The authors suggest the benefits of PBIS for juvenile justice-involved youth lay not only in its further expansion within restrictive settings but in the powerful support it could provide for transition if it were implemented across juvenile justice and community schools district- or community-wide.

It is never an ideal situation for an adolescent to have reached the point where he or she is placed in more restrictive settings such as alternative programs and residential facilities or be involved in the juvenile justice (JJ) system, and much work needs to be done to provide supports to children and youth before that point (Mendel, 2011). The work of prevention, however, is ongoing and we must continue to remember and address the needs of youth residing in restrictive settings *today*. On any given day, over 70,000 youth are held in residential placement outside their homes (Office of Juvenile Justice and Delinquency Prevention, 2011). For their well-being, and that of our communities, it is essential that restrictive settings prioritize the

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implementation of effective, evidence-based practices designed to reduce recidivism through positive, humane practices. One of these practices is positive behavior interventions and supports (PBIS).

The PBIS framework and its benefits have long been discussed in traditional classroom settings, and since the mid-1990s PBIS has been more steadily integrated within the alternative education, residential, and JJ settings. To some, discussing the use of PBIS in restrictive settings may seem counterintuitive because PBIS is generally touted as a prevention measure. For youth in restrictive settings, it may seem that prevention efforts are perhaps too little, too late and that a stronger or more punitive approach may be needed. As demonstrated throughout this special issue (see Ennis, Jolivette & Boden; George, George, Kern & Fogt; Sprague, Scheuermann, Wang, Nelson, Jolivette & Vincent; and Swain-Bradway, Swoszowski, Boden & Sprague in this issue), that clearly is not the case. It is essential that a school- or facility-wide framework be in place that allows for behavioral interventions and treatment of mental-health, physical-health, and/or substance-abuse needs, so that the youth and staff may use the majority of their time focusing on educational gains and developing skills allowing the youth to succeed when they return to their homes, communities, and schools.

Youth Within Restrictive Settings

When you stop and take a closer look at the youth who are in restrictive-care settings, most of us would find the trauma and challenges they have faced untenable and overwhelming in our adult lives. Large proportions of youth in restrictive settings have experienced abuse or neglect, poor and unsafe neighborhoods, homelessness, or have been in and out of the child welfare system (Leone & Weinberg, 2010; Sedlak & McPherson, 2010; Toro, Dworsky, & Fowler, 2007). Many experience mental health issues or educational disabilities that make it difficult to succeed in school and are disconnected from their community schools and/or families (Burrell & Warboys, 2000; Quinn, Rutherford, Leone, Osher, & Poirier, 2005). Adolescents in restrictive settings also are disproportionately youth of color who, given the risk factors listed, possibly have demonstrated inappropriate behaviors in their school settings. Schools and adults in their lives may have responded to these behaviors ineffectively, resulting in disciplinary actions that lead these youth into more restrictive settings or the JJ system (Fabelo et al., 2011). When youth have reached the point at which they are receiving educational services and/or residing in more restrictive settings, they likely have experienced school failure or committed more than one offense and have spent a significant amount of time out of school. As a result, they are referred to a more restrictive

setting that requires a youth to leave his or her family, home, and community school and enter a restrictive environment or a locked facility from which the youth cannot come and go.

However, with the right staff and programming, time in a restrictive setting can be designed to provide a true rehabilitative opportunity for youth. In the right setting, youth may have their first opportunity in months or even years to attend school; earn course credits; receive attention to and monitoring of their physical, mental-health, and educational needs; and continuously come in contact with positive role models who affirm the youth's ability to succeed and push them onto a new path (Gonsoulin, Darwin, & Read, 2012).

Why Positive Behavior Interventions and Supports?

After years of trying to correct negative behaviors with strong discipline, researchers demonstrate that punitive philosophies focused on control and coercion are not effective and do not work to reduce recidivism in juvenile populations; and may actually increase it (Lipsey, 2009). When punitive methods are the main response from adults to undesired behavior, youth primarily learn that the main goal is not to get caught rather than understanding the reasons not to engage in the behavior altogether (Altschuler, 2008). For example, in JJ settings, harsh responses to youth behavior have a negative impact on youth and the overall facility environment. Facilities with higher numbers of restraint incidents tend to have higher rates of youth injury, staff injury, suicidal behavior, injury during other forms of punishment (such as isolation), sexual assault, and fear among the youth is common (Kupchik & Snyder, 2009). An unintended or secondary consequence of harsh disciplinary responses—such as isolation—results in the removal of youth from needed programming, including both traditional and special educational services.

Given the risk factors experienced by many youth receiving services within restrictive settings, it is not hard to imagine that these youth may have infrequently, if ever, received affirmation or positive modeling from multiple adults across the various settings in which they are engaged—ranging from the youth's home and neighborhood to their school. When alternative approaches such as incentives, positive reinforcement, and encouragement of strength-based attributes are used in place of strictly punitive approaches, youth are able to learn the value and satisfaction of positive interactions and, in seeing this benefit, to also develop greater self-control (Altschuler, 2008).

In view of recent research, the national trend has been for these restrictive settings, especially JJ settings, to move toward more youth-focused and treatment-based operations that emphasize healthy

relationships between staff and youth (Loughran, Godfrey, Ohan, Halemba, & Siegal, 2012). From this change in approach, combined with the behavioral and emotional needs of youth, it is clear that a three-tiered and evidence-based behavioral approach such as PBIS can provide a strong and viable framework within these environments. Sound behavioral management practices and strategies that promote youth engagement in programming, inclusive of education and treatment, serve to promote positive outcomes for youth and establish a promising and constructive environment where both staff and youth are successful and safe.

The benefit of using a PBIS framework within restrictive settings is that it is comprehensive, flexible, and can be successfully mapped to alternative education, residential, and JJ environments (Jolivette & Nelson, 2010; Read & Lampron, 2013; see Ennis et al. George et al., Simonsen & Sugai., Sprague et al., Swoszowski, McDaniel, Jolivette & Melius, in this issue). The six main PBIS principles (see Office of Special Education Programs Center on PBIS, 2009)—especially those focused on (1) arranging the environment to prevent the development and occurrence of problem behavior, and (2) teaching and encouraging prosocial skills and behaviors—align with (what the authors view as) the primary concerns and needs of restrictive settings for youth: safety for all within the facility, education and social skill acquisition, and a focus on responsibility and accountability.

Structure and Safety Within the Restrictive Setting

Safety is the first priority in restrictive settings. This applies to safety for everyone, including youth and staff. As expected, youth in these settings bring with them the behaviors and problems that led them to come in contact with the system. These behaviors do not go away as a result of adjudication and placement. It also is important to remember that youth within the JJ system likely have experienced some type of trauma or violence in their lives, and they need to feel secure in order to have a sense of competence, well-being, and purpose (Pennell, Shapiro, & Spigner, 2011). Recent research indicates that youth's perceptions of their safety within the facility are key, and feelings of safety reduce antisocial activity and further system involvement (Pathways to Desistence Study, as cited by Loughran et al., 2012). Thus, when examining an institutional model, the first set of questions for the administrators, staff, and parents should focus not only on whether students and staff *are* safe from harm, but also whether they *feel* safe, protected, and respected.

One key to producing feelings of safety is to make sure safety-related processes and procedures are occurring systemically and

systemwide, and a PBIS framework with its three-tiered model, embraces and strengthens this concept (Nelson, Sugai, & Smith, 2005). The universal tier (tier 1) emphasizes having clearly communicated expectations and rules that apply to everyone—including youth and staff. PBIS implementation in a restrictive setting requires extensive buy-in from all staff to ensure that the discipline philosophy is widely accepted and that responses are consistent. Predictable consequences for behavioral infractions are a cornerstone of both PBIS implementation and in maintaining a safe environment in which to work and grow (National Association of State Directors of Special Education & National Disability Rights Network, 2007). In more restrictive settings where PBIS has been implemented, research has shown that having a positive universal disciplinary approach in place has reduced minor behavior problems (Ennis, Jolivette, Swoszowski, & Johnson, 2012; Jolivette & Nelson, 2010; Simonsen, Jeffrey-Pearsall, Sugai & McCurdy, 2011; Swoszowski et al., 2012). However, the framework also recognizes that a one-size-fits-all approach will not be enough. The second and third PBIS tiers allow staff to thoughtfully plan responses to difficult behavioral problems to ensure ongoing safety and security.

Rehabilitation and Habilitation Through Education and Social Skill Acquisition

After safety concerns are fully addressed, the hard work of the restrictive placement begins: to assist youth in addressing their needs and helping them make gains so they are able to function, learn effectively, and successfully re-integrate into their schools and communities. Rehabilitation is not always the foremost goal in restrictive settings; however, most child practitioners and the general public believe that these settings and the JJ agencies have a responsibility to address education and skill development for the youth in their care (Center for Children's Law and Policy, 2007).

Youth who are not in the JJ system spend the majority of their time in school, and it should be no different for those within other restrictive settings—they continue to have the same rights to schooling as their peers, and education must remain a high priority (Gemignani, 1994; Jolivette & Nelson, 2010). It has been well demonstrated that many youth enter restrictive settings already behind grade level (Krezmein, Leone, & Mulcahy, 2008; Seiter, Seidel, & Lampron, 2012) and, as such, are in need of strong educational support. Further, education is a crucial factor for reducing recidivism and pushing students toward more successful futures (Cutler & Lleras-Muney, 2007; Juvenile Justice Education and Enhancement Project, 2006).

Education cannot be effective and learning cannot take place if both educational disabilities and the social, emotional, and behavioral concerns of all youth are not addressed (Osher, Sidana, & Kelly, 2008); PBIS allows each of these aspects to be emphasized. PBIS focuses on modifying behavior not only through a change in environment and the manner in which adults approach interactions with students, but also through teaching new skills and modeling the appropriate behaviors that students may take with them when they leave. A core tenet within PBIS is that the change in behavior experienced by the youth should be "socially significant" such that it extends into all aspects of life, lasts over long periods of time, and ultimately increases prosocial behaviors that impact social interactions and learning opportunities (Sugai et al., 2000, p. 135). Thus, PBIS can provide the structure and foundation that allows youth to develop social skills and manage their behavior, which in turn allows them to focus on making educational progress and ultimately returning to their communities and thriving.

Taking Responsibility and Demonstrating Accountability

As a society, it is reasonable and necessary to expect individuals to take responsibility for decisions or actions that are harmful to others or the community. For youth who are disadvantaged and/or have a disability, understanding the impact and consequences of their actions, how to make amends, and the value of doing so may be an area for growth. Ideally, child-serving agencies for restrictive settings, especially the JJ system, should help promote this growth.

Similar to the primary goals of restrictive settings outlined here, a balanced approach to restorative justice typically encompasses the core values of community offender responsibility, competency development, and community protection (Office of Juvenile Justice and Delinquency Prevention, 1998)—all of which are easily supported through PBIS as well. PBIS provides a framework in which balanced restorative justice models can be effective, and given that their tenets are complementary if not entirely overlapping, they can be powerful rehabilitative tools when implemented together. For example, in a balanced restorative justice model, the core value of youth accepting *responsibility* for their actions can be heightened and reinforced through the clearly defined rules and behavioral expectations embedded within all tiers of a PBIS framework. In both PBIS and balanced restorative justice approaches, consequences are not designed to be primarily punitive in nature—they are designed as an opportunity from which young people can learn and make better choices in the future. The restorative justice value of *competency development* endorses the belief that youth involved in the JJ system can become responsible,

productive members of the community. According to Torbet (2008), competency development is the route by which justice-involved youth acquire skills (e.g., prosocial, moral reasoning, academic, workforce, and independent-living skills) that foster productive, connected, and law-abiding members of their communities. Youth development agencies that promote programming to address these skills enhance the likelihood of positive youth outcomes occurring (Bazemore & Nissen, 2000). PBIS directly supports behavioral skill competencies and, once in place, provides the ability to productively focus on educational, vocational, and moral reasoning skills as well. Finally, restorative justice focuses on an area of safety not yet discussed, which is *safety within communities*. PBIS implementation seeks to create a safer environment *within* the restrictive setting (Jolivette & Nelson, 2010; Simonsen et al., 2011). The authors suggest that communities at large also can benefit from the implementation of PBIS in restrictive settings. Primarily, as youth develop competencies in a PBIS structured setting, they should be able to carry them into other environments (i.e., dorm life, therapy settings, recreation and school) and ultimately the communities to which they return (Sugai et al, 2000).

In addition, as PBIS begins to expand from individual schoolwide programs to districtwide, statewide, or national initiatives (Delisle, 2012; Southern Poverty Law Center, 2008; Texas Appleseed, 2012), the value of having continuity in a behavioral framework across restrictive and traditional settings, paired with restorative justice philosophies and integrated systems of care, should not be underestimated. Such systems can provide a holistic approach through which youth receive the ongoing supports needed to maintain skill development, apply those skills, reduce new delinquent behaviors and subsequently, improve community safety.

Support for PBIS and its Potential Role in Effective Transition

As the evidence base demonstrating the effectiveness of PBIS in restrictive settings has grown (as demonstrated in this journal), a network of support for PBIS has developed among special education advocates, JJ advocates, and practitioners who have observed the need for and benefits of PBIS as well. The following are examples of such support:

- In 2005, the National Association of State Directors of Education and the National Disability Rights Network came together with other organizations to develop a JJ/special education shared agenda. In 2007, this alliance resulted in a series titled *Tools for Promoting Educational Success and Reducing Delinquency.* PBIS was cited as a promising practice within JJ settings, and its success within restrictive settings

was highlighted (National Association of State Directors of Special Education & National Disability Rights Network, 2007).

- The PACER Center in Minneapolis, Minnesota, provides assistance in increasing parents' involvement and decision making in their children's education and in improving educational outcomes for children and youth with disabilities. The JJ program within PACER focuses on ensuring that youth receive special education and transitional services while incarcerated. The center promotes the use of PBIS as a prevention and early intervention approach to behavior management in the local school district for youth with educational disabilities and also recognizes its value in restrictive settings. PACER (1) promotes the idea that a PBIS framework be integrated through the child's IEP and the process inherent in planning for the child's educational goals and needs, and (2) supports the thinking that PBIS principles help *all* children improve their behavior across multiple settings (see *www.pacer.org*).
- Domenici and Forman (2011) provide a program option on how PBIS was implemented at the Maya Angelou Academy of the New Beginnings Youth Development Center in Washington, DC, as an approach to support positive school culture. The authors recognize that the origination of PBIS was not in restrictive settings, but that it can be adopted and adapted successfully by AE schools and embraced by staff who are attempting to transform restrictive school settings. PBIS was utilized as the framework for staff and students to operate successfully in this restrictive setting to improve the culture and deliver a rigorous curriculum of instruction.
- In its 2012 *Yearbook*, the Council of Juvenile Correctional Administrators (CJCA) note the challenges in operating a correctional facility that provides an environment that is "safe and structured yet normalized" so that youth may successfully return to the community (Loughran et al., 2012, p. 18). In response to this ongoing challenge, a number of JJ agencies have eliminated punitive practices and implemented behavior management systems with a more positive approach. CJCA acknowledges that these positive approaches have repeatedly proven to be effective for controlling and reducing misbehavior.
- The federally funded National Evaluation and Technical Assistance Center for the Education of Children and Youth Who Are Neglected, Delinquent, or At-Risk (NDTAC) (with which these authors are associated) is specifically charged with sharing information around promising practices in the field, including PBIS for youth. NDTAC has raised the issue of the application of PBIS in JJ settings in its publications, events, and national conversations pertaining to the value of PBIS in addressing the needs of youth in secure settings. In

2013, NDTAC partnered with other federal centers focused on school safety (the U.S. Department of Education's National Center on Safe Supportive Learning Environments) and juvenile justice (the OJJDP State Training and Technical Assistance Center) to feature multi-tiered approaches to behavior management in restrictive settings and the related outcomes for youth.

This list is not exhaustive, but it illustrates that those in the fields of education and JJ recognize the overwhelming need for sound behavior management practices in restrictive settings and the strong evidence base PBIS has to draw on to effectively adapt it. For example, national sentiment (Cullen, 2006) regarding how our society should approach incarceration of juveniles aligns with current research. A 2007 public opinion poll commissioned by the Center for Children's Law and Policy and funded by the MacArthur Foundation found that a majority (> 85%) of the public (1) did not consider the current manner of juvenile incarceration an effective rehabilitation method; and (2) felt that schooling, job training, mental health treatment, counseling, and follow-up services for youth after they leave the system were more effective forms of rehabilitation. Overwhelmingly, 89% of those surveyed felt that "youth who commit crimes have the potential to change" (Center for Children's Law and Policy, 2007, p.1). In fact, in Lipsey's (2009) meta-analysis of juvenile justice intervention programs, ". . . there was no indication that there were juveniles who's risk level was so high that they did not respond to effective interventions" (Lipsey, Howell, Kelly, Chapman, & Carver, 2010, p.23).

The authors wholeheartedly agree with the supporters, and believe that a concurrent expansion of PBIS into both traditional schools and restrictive settings provides an amazing opportunity for districts and communities to not only reduce initial entry into the system but also reduce recidivism as well. Aligning and coordinating programming under the PBIS framework across the different settings—alternative education, residential facilities, JJ, aftercare, district schools, and the home—can create greater continuity and a natural progression of supports for youth to further increase their chance for success. Continuity for youth returning from restrictive environments is often missing and can be a detrimental gap for youth in the transition process (Altschuler, 2008). Re-entry/transition planning and the provision of integrated supports and services will aide in successful outcomes for youth leaving a restrictive setting. A fully functional PBIS framework operating in the receiving school that helps to connect the work done in the secure setting to the community setting may be an invaluable support for helping a youth succeed in transitioning to the community school setting and remaining in school.

Conclusion

Readers of this special issue likely already have in interest in, or understand the benefits of, implementing a PBIS framework in restrictive settings. PBIS is a solid, proven, yet flexible support structure under which the rules and interventions that best meet the varied needs of a variety of settings can be integrated. However, the key to a PBIS framework is the community-wide nature of its implementation. A few determined, strong-willed individuals alone cannot implement PBIS in these settings. Others may need convincing. As demonstrated throughout the articles in this issue, there is a groundswell of evidence and numerous organizations and researchers who are ready to assist and guide those who are ready to make this shift and need the resources to promote buy-in within restrictive settings. Not only can implementing a PBIS model within restrictive settings be done successfully; it *should* be done when we view our responsibility as a society to assist youth—who have experienced difficult life circumstances and may need a second chance—to develop the skills needed to become happy, successful, and contributing members of our communities as adults.

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PBIS as Prevention for High-Risk Youth in Restrictive Settings: Where Do We Go From Here?

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Abstract

The pace of implementation of PBIS in restrictive settings for juvenile offenders is accelerating. Recommendations for future research include the following: examine effects of PBIS on preventing entry into the school-to-prison pipeline, identify factors that influence PBIS implementation, develop the capacity of restrictive settings to engage in data-based decision making, create models of professional development to facilitate implementation with fidelity, and evaluate the impact on recidivism. Ongoing efforts to reform the systems and practices within these settings must include PBIS. To accomplish these goals, leadership must adopt a long-term vision for PBIS efforts and researchers should contribute to this vision by informing implementation practice and linking practices to outcomes through effective decision-making.

Keywords: Secure Care, Restrictive Settings, Incarcerated Juveniles

The enthusiasm with which many schools, school districts, and state departments of education have embraced the application of the positive behavior interventions and supports (PBIS) multi-tiered system of support framework has been matched by that of researchers who have documented its impact in public school settings. The trends in both are gratifying. School-wide PBIS is being implemented in over 18,000 schools across the nation (www.pbis.org), and research investigating the nuances of its effects, implementation parameters, and acceptability to practitioners has proliferated. This issue of *Education and Treatment of Children* has highlighted the progress and promise of this framework in addressing the needs of children and youth who are impacted by more restrictive settings such as alternative programs, restrictive facilities, and the juvenile justice system, as well as the providers who serve them. As examples, adoption of facility-wide PBIS in

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secure care settings for juveniles is accelerating: four states (AZ, GA, IL, and TX) have launched initiatives throughout their state juvenile justice systems; a number of programs and facilities in other states (e.g., CA, IL, OR) are implementing PBIS in some programs within alternative education, residential, and juvenile detention or correctional institutions; and PBIS has been prescribed as a remedy for excessively punitive or ineffective disciplinary practices in other jurisdictions (e.g., Casey v. Gundry et al., 2010). The experience gained from these efforts is informing the process of adapting this framework to the unique characteristics of restrictive settings.

However, much remains to be done. Secure care environments traditionally maintain a climate that favors punitive sanctions for misbehavior over teaching and supporting desired behavior. Such climates, of course, are characteristic of many public (and non-public) schools, where zero tolerance policies have encouraged the use of exclusionary disciplinary practices and the criminalization of student behavior. Students who are marginalized to begin with (e.g., members of racial and ethnic minority groups, students with disabilities) are disproportionally exposed to disciplinary exclusion and encounters with law enforcement and juvenile courts (Losen & Gillespie, 2012; Office for Civil Rights, 2012). These experiences are likely to propel their entry into the school-to-prison pipeline (Darensbourg, Perez, & Blake, 2010). Youth of color make up 41% of the population of juvenile facilities (Sickmund, Sladky, Kang, & Puzzanchera, 2011), and youth with disabilities comprise 30 to 40% of the incarcerated juvenile population (Gagnon & Barber, 2010).

The preceding articles have offered a tantalizing glimpse into the potential of PBIS for transforming alternative education, residential facilities, and secure care juvenile settings into more facilitative environments for youths, as well as to interrupt the pipeline leading to them. In the following sections, we offer recommendations for future research on the impact and implementation parameters of PBIS for youth who have or may encounter these settings.

Recommendations for Research

Document the Effects of PBIS on Preventing Entry into the School-to-Prison Pipeline. Although entry into the pipeline is influenced by individual characteristics and local factors, it is clear that school disciplinary policies and practices have a prominent role. Arguably, the major common factor is the policy of zero tolerance for child misbehavior (Boccanfuso & Kuhfeld, 2011). Although originally intended to address school safety, this policy has resulted in the widespread use of exclusionary disciplinary practices (i.e., suspension and expulsion),

as well as arrests and referrals to law enforcement for a wide range of student behavior. Repeated exposure to suspension, encounters with law enforcement, and inversely, loss of academic instruction disengage students from school and lead to patterns of truancy and dropout. These in turn are known risk factors for engagement in delinquent behavior, arrest, and incarceration. We recommend that identified risk factors for involvement with the juvenile justice system (rates of suspension, expulsion, truancy, drop-out) be included in studies that evaluate the impact of PBIS. Comparing data on these variables in middle and high schools that are implementing PBIS with schools that are not would provide evidence that may inform school disciplinary policies. Also, data from local communities in which these schools are located could be compared: rates of arrest, court involvement, and juvenile incarceration.

Identify Factors that Impair or Enhance Effective Implementation of PBIS in More Restrictive Settings. Alternative education, residential facilities, and secure care environments obviously differ from public schools along many dimensions, including the priority placed on security, some maintaining youth in a 24/7 environment, and multidisciplinary staffing patterns, to name a few (Jolivette & Nelson, 2010). Efforts to understand and adapt PBIS implementation parameters have begun (see articles by George et al., Scheuermann et al., Sprague et al., in this issue). However, given the enormous variability of these settings, it will be important to understand the contribution of essential PBIS components to implementation fidelity and outcomes, in addition to how these components are best adapted to meet individual circumstances. For example, what differences emerge when PBIS is mandated by legislative or legal action versus when it is adopted by agency or facility leadership? How does the manner in which PBIS is adopted impact staff buy-in? What are the effects of agency or facility leadership patterns and communication styles on implementation fidelity and outcomes? How do various coaching models affect these variables? Replicable practices need to be identified across a variety of setting configurations, and future researchers should focus on refining the implementation of PBIS practices and evaluating their sustainability in restrictive settings.

Develop the Capacity of More Restrictive Settings to Engage in Data-Based Decision Making. These settings, especially secure care settings are awash with data, yet data on youth behavior and the effects of programming or interventions on behavior seldom are analyzed, shared, or used in agency or facility decision making (Jolivette & Nelson, 2010). Behavior reports, behavior incident reports, disciplinary referrals, and behavior write-ups are commonly used measures of youth

behavior in restrictive settings, and these data are used to evaluate the progress of youths in level systems, treatment programs, or for multidisciplinary team meetings. However, such data are not used to identify patterns of behavior across time and location, or as a basis for making programmatic or intervention decisions. The behavioral measure used by public schools, office discipline referrals (ODR), fails to capture the dimensions of behavioral events that are important to personnel in these settings, especially given additional data and requirements of their governing or accreditation entities (e.g., whether the event involved a major or a minor infraction, whether it resulted in a referral to their therapist or security, whether the youth was removed from the classroom or other setting or placed in administrative segregation, whether a living unit was placed in "lock down" status). Researchers can work with agency or facility staff to develop a progress monitoring system for behavior. Ideally, such a system should (a) allow for ongoing assessment; (b) be simple in administration, scoring, and interpretation; (c) capture changes over time; and (d) provide implications for refining intervention efforts. Personnel should engage in careful ongoing analysis of data within these settings to determine the percentage of youth who will require PBIS beyond the universal tier. All staff must receive training in constructive approaches to behavior and in the implementation of decision rules about moving the youth from one tier to another.

Create Models of Professional Development that Facilitate Implementation of PBIS with Fidelity across Restrictive and 24/7 Environments. One of the challenges affecting the fidelity and consistency of implementation is the adequacy of personnel training. In more restrictive care settings, PBIS professional development must not only change attitudes about youth behavior and potential, but also build effective skill sets for teaching and encouraging positive youth behavior and for preventing and discouraging undesired behavior. These must be accomplished with staff representing a range of disciplines and with diverse educational backgrounds. Staff training also must strive to increase communication among personnel who work different shifts and in various roles. Professional development approaches that emphasize team-based planning and collaboration to meet the varied needs of youths in these settings may enhance the collective understanding of PBIS in restrictive settings.

*Identify the Impact of PBIS on Recidivism***.** Nationally, the recidivism rate for all incarcerated youth averages 55% within one year of release (Snyder & Sickmund, 2006), with rates for youth with disabilities reported to be substantially higher (Bullis, Yovanoff, Mueller, & Havel, 2002); the readmittance rate of youth returning to alternative

education programs and residential facilities is unknown. As Sprague and colleagues point out in this issue, demonstrating that PBIS can improve the climate of juvenile institutions or the behavior of youth while they are incarcerated fails to demonstrate that it can lead to better life outcomes. Therefore, we recommend that recidivism (i.e., re-arrest or re-incarceration within a designated time frame) be included as a dependent measure for research investigating the impact of PBIS on incarcerated juvenile populations. A design for such research might compare recidivism rates and other outcome measures (e.g., educational attainment, employment, income) between youth released from facilities in which PBIS has been implemented with adequate fidelity and those released from facilities that operate under a more traditional disciplinary framework; the same could be applied to readminttance of youth back to alternative and residential settings.

Conclusions

The articles in this special issue, along with previous publications contribute to a growing body of literature suggesting that PBIS is a viable framework for successfully transforming punitive environments into positive cultures that are conducive to producing positive youth outcomes. The authors contributing to this issue have set the stage for future applications of PBIS in restrictive settings. Their ongoing efforts, in addition to those of advocacy groups (e.g., American Civil Liberties Union, the NCAAP Legal Defense Fund, the Charles Hamilton Houston Institute for Race and Justice at Harvard Law School, the Juvenile Law Center, and the Southern Poverty Law Center) have led to developing partnerships between juvenile justice, PBIS networks, and other organizations advocating for effective and preventative interventions for youth in restrictive settings. Obviously, achieving meaningful reform in the policies and practices that marginalize children and youth and direct them into a pipeline that leads to placement in a system that historically has operated on a model of punishment is and will continue to be challenging. The goal of more restrictive settings is to rehabilitate youth in its care, meaning to return them to a previously intact level of functioning. The fact that over 50% of incarcerated youth are re-offending or returning to secure care clearly indicates that this goal is not being accomplished. Efforts to reform the systems and practices within alternative education, residential facilities, and juvenile justice are ongoing, and we hope that PBIS will be part of this reform. To accomplish such change in these settings, leadership must adopt a long-term vision for PBIS efforts. Researchers can contribute to this vision by informing implementation practice and linking practices to outcomes through effective decision-making.

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PBIS as Prevention for High-Risk Youth in Alternative Education, Residential, and Juvenile Justice Settings

Education and Treatment of Children
Special Issue

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Education and Treatment of Children

Manuscript Guidelines

Education and Treatment of Children (ETC) is devoted to the dissemination of information concerning the development of services for children and youth. A primary criterion for publication is that the material be of direct value to educators, parents, child care providers, or mental health professionals in improving the effectiveness of their services. Therefore, authors are required to compose their manuscripts in a clear, concise style that will be readily understood by the practitioners who are likely to make use of the information.

Materials appropriate for publication include experimental research, research reviews, data-based case studies, procedure or program descriptions, issue-oriented papers, and brief communications. Nonexperimental papers should emphasize the manner in which the described procedure, program, or issue relates to the practical concerns of professionals in the field. Experimental studies should demonstrate usefulness of the described procedure, adequacy of the data in showing a functional relationship between the procedures and observed behavior changes, and evidence that measurements taken were reliable. *ETC* utilizes a broad base of researchers, educators, clinical practitioners, and graduate students in the editorial review process.

Experimental Studies

Manuscripts that document a clear functional relationship between procedures used and behavior changes observed will be considered for publication in the Studies section of *ETC*. Replications are welcome, especially when the original study has been published in a source that is unlikely to come to the attention of the practitioners who would use the procedures in their work or when the replication includes some change in the procedures, population, or setting for the study. Original research studies that investigate procedures of use to practitioners are also welcome. Potential usefulness of the procedures, behavior changes of magnitudes that have practical implications, accuracy of the data, and clarity of the presentation for practitioners are the considerations used by our reviewers when judging an experimental study manuscript's suitability for publication in *ETC*.

Data-Based Case Studies

Manuscripts that meet the following criteria will be considered for publication in the Data-Based Case Studies section of *ETC*. The

minimum requirements are: (1) a demonstration of direct, quantitative measurement of specific client behaviors repeated over time that guided the clinical and/or educational decision making reported in the study; and (2) a contribution to advancing teaching/training/treatment effectiveness by serving (a) as a source of ideas and hypotheses for further research, (b) as a source of developing teaching/training/treatment techniques, such as a study of a rare phenomenon, (c) as a counter instance for notions that are considered to be universally applicable, or (d) as persuasive and motivational (see *ETC*, 22 (2), for references). Replications in real-life situations of procedures developed under rigorous research protocols are welcome, especially when the original study was a highly controlled experiment. Also, data based case studies that highlight efficient and effective means to collect data that guide treatment/teaching will be accepted.

Reviews of the Literature

Reviews should be focused on the implications of the results of studies for practitioners whose clients may benefit from the procedures described by the literature. Reviews need not be comprehensive as long as the literature not included would in no way alter the implications for practice described by the review. The style, format, and organization should be such that practitioners will clearly understand what is being presented. It is important to caution practitioners about the limitations of the implications for practice drawn from the research literature. This may include discussions of legal, ethical, scientific, and logistical limitations and associated issues.

Program Descriptions

It is important for practitioners and program managers to know what resources will be required to successfully implement programs or procedures that have been useful to others. *ETC* publishes such program or procedure descriptions when reviewers indicate that the description clearly communicates this information. This typically means that the manuscript includes an introduction that identifies a framework into which the program fits, or a rationale for the program's operation; basic information regarding the geographic area served and the program location, accessibility, funding sources, etc.; a clear description of the clients served; the number, types, and training of staff who implement the program; details of the actual operation of the program; documentation of program successes; and discussion of any and all aspects of the program that will allow readers to determine the feasibility and desirability of implementing the program or procedure in their settings.

Forum Articles

Papers for the Forum section of *ETC* will generally be discussions of legal, ethical, and other issues important to persons working with children; discussions and/or descriptions of methods and techniques that provide information directly applicable to the assessment, treatment, and evaluation of services for children; descriptions of guidelines or criteria useful in planning and implementing assessment, treatment, and evaluation programs for children; behavior analyses of situations relevant to the education and treatment of children; theoretical papers that focus on the potential applications of the position taken; or survey research that addresses important social and criterion-related validity issues regarding evidence-based practices that improve the services for children and youth. It is difficult to describe a set of specific review criteria that are appropriate for the wide variety of manuscripts that can be considered for the Forum section of *ETC*. In general, Forum manuscripts will be reviewed to determine if a manuscript provides information that can be directly applied to the education and treatment of children; addresses an issue or problem that affects a large population of children, professionals, or parents; clearly and cogently make its points; considers all of the critical information relevant to the topic; and adds to our knowledge regarding the education and treatment of children.

Book Reviews

The goal of a book review is to provide sufficient information for readers to make an informed decision regarding their interest in obtaining and reading the book. To accomplish that goal, the reviewer must provide identifying information, a description of the book's purpose and content, and evaluative comments regarding the adequacy and completeness of the material covered. In general, a relatively complete review will require two to five double-spaced, typed pages.

General Issues in the Reviewing Process

The publication of data based studies in ETC is intended to provide those involved in the education and treatment of children with useful empirical information. The editorial review process is designed to identify such information in the manuscripts that are submitted for review. The accuracy and clarity of the useful information is shaped by the review process with the result that the investigator's efforts are recognized by the publication of an article that is of interest to many of our readers. The editorial review process articulates what is useful, accurate, and clearly communicated in each manuscript. It also identifies what is not useful, accurate and/or clearly communicated. Finally,

the review process determines whether or not a given manuscript is ready to be published, can be revised so that it will be publishable, or cannot be revised so that it will be publishable.

The usefulness of information contained in a manuscript is a judgment made by reviewers who have dealt with similar problems in similar settings. They are asked to determine whether or not the procedures used would be feasible for others to use and whether or not the results produced justify the effort required. Researchers who are familiar with available methodology judge the accuracy of the information presented. They are asked to determine whether or not measurement procedures were used that will give readers confidence that the data reflect the behaviors that occurred. In addition, they indicate whether or not the conditions under which the data were collected in combination with the results obtained are sufficient to assure readers that the procedures employed were responsible for the changes in behaviors that were observed. Reviewers are also asked to comment on the clarity of the presentation and to provide suggestions to the authors that will improve the readability of the manuscript.

Only infrequently does a manuscript fully satisfy all the criteria when it is submitted. More frequently manuscripts are improved by the interactions among reviewers, an associate editor, an editor, and the authors as they pass through the editorial review process. Often the improvement of a manuscript results in it meeting the publication criteria and it is ultimately published. Sometimes manuscripts cannot be or are not improved so that they meet the criteria and they are not published.