STUDY EVALUATING A COGNITIVE BEHAVIORAL PLAY INTERVENTION
FOR KINDERGARTEN STUDENTS WITH EXTERNALIZING BEHAVIORS

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ABSTRACT

Children with high rates of externalizing behavior in early school years can be at a disadvantage for the rest of their time in school. These students are likely to experience academic and social difficulties. There are a number of models and approaches to addressing externalizing behaviors in school-age children, ranging from classroom-based curricula to small group interventions. Interventions administered in a school environment offer the opportunity to support children without outside access to mental health services. This study investigated the possible benefits of utilizing a school-based cognitive behavioral play therapy intervention to address externalizing behaviors.

Utilizing a single subject design, two kindergarten students participated in a weekly, eight-week, one-on-one intervention. Externalizing behavior was measured by teacher ratings via the Behavior Assessment System for Children – Second Edition, Teacher Rating Scale – Preschool Form (Reynolds & Kamphaus, 2004). Teachers rated students at baseline, after the intervention, and after a four-week withdrawal phase. Results from teacher ratings were suggestive of short-term improvements in externalizing behavior rates; however, long-term improvement in externalizing behavior was not observed. Results and recommendations for future research based on audio recordings and session notes are also presented.
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Chapter 1
Introduction

Children who experience behavioral difficulties in their early school years can be at a disadvantage for the rest of their time in school. Without early intervention, these students are likely to experience difficulties with learning and achievement, building strong teacher-student relationships, and forging friendships. There are a number of models and approaches to addressing externalizing behaviors in school-age children, ranging from classroom-based curricula to small group interventions. Efficacious classroom-based interventions for socioemotional concerns include the Promoting Alternative Thinking Strategies (PATHS) curriculum (Kuche & Greenberg, 1994) and the Al’s Pals training program (Geller, 1999). The Incredible Years Parent Training (IYPT; Webster-Stratton, 2006) is a parent-focused intervention that has a large body of empirical support for addressing externalizing behaviors. However, classroom-based interventions may not support students who are struggling with more significant levels of externalizing behaviors and parent-training interventions require a significant time commitment from parents.

Another efficacious treatment for students with externalizing behavior is one-on-one or small group cognitive behavioral interventions. Such direct intervention strategies focus primarily on the student and do not require a high degree of parent or teacher effort. These treatment options have been successful for older students with externalizing problems (Sukhodolsky, Kassinove, & Gorman, 2004). However, CBT treatments are not designed for younger students. Most CBT interventions incorporate metacognitive strategies that are thought to be inappropriate for the developmental level of preoperational preschool and primary-aged students (Shelby & Berk, 2009).
Remedying this gap, Susan Knell (1995) developed a cognitive behavioral approach that incorporates play therapy and is designed for preschool-age clients. In a one-on-one, therapeutic setting, Cognitive Behavioral Play Therapy (CBPT) has also been documented to successfully treat young children experiencing difficulties like divorce, anxiety, sexual abuse, and selective mutism in published case studies (Knell, 1995, 1998; Knell & Dasari, 2006; Knell & Ruma, 2006). Pearson (2007) successfully utilized a CBPT group intervention for preschoolers displaying anxiety and withdrawal. Siahkalroudi & Bahri (2015) found CBPT lead to an increase in elementary students’ self-reported self-esteem and social skills at a girls’ school. Another study found that CBPT was an effective intervention for older elementary students with Attention Deficit Hyperactivity Disorder (ADHD) in an outpatient clinic (Abdollahian, Mokhber, Balaghi, & Moharrari, 2013). CBPT was attempted with older elementary boys exhibiting symptoms of ADHD within a school setting by Almeraisi (2010), but results did not indicate a change in the boys’ ADHD symptomology.

Although there is an increasing body of research related to CBPT, the efficacy of such an approach for preschool and kindergarten-aged children exhibiting high rates of externalizing behavior has yet to be evaluated. For these youngest students who are risk for academic and social deficits and merit intensive intervention, there are few empirically validated options for treatment in a school setting. A CBPT intervention is a viable approach that is appropriate for a school environment and offers the opportunity to support children without outside access to mental health service. This study evaluated using a school-based CBPT intervention to address externalizing problems in young children. The purpose of this study was to measure and describe the possible benefits of utilizing CBPT as a school-based,
short-term intervention for kindergarten students with at-risk or clinically significant levels of externalizing behaviors.

**Research Question**

Will the implementation of an eight week, 30 minutes per week CBPT intervention within the school setting be associated with a practically important decrease, defined as a decrease of 5 to 10 points on the BASC-2 T-scores, in teacher ratings of externalizing behaviors on the BASC-2 Teacher Rating Scale, Preschool Form in a small sample of kindergarten students?

**Overview of Methodology**

A single subject design was utilized to provide quantitative and qualitative information to measure the effects of the intervention in a small sample format. Two kindergarten students participated in a weekly, eight-session, one-on-one CBPT intervention. The outcome variable, rates of externalizing behavior, was measured by teacher ratings via the Behavior Assessment System for Children – Second Edition, Teacher Rating Scale – Preschool Form (Reynolds & Kamphaus, 2004). Teachers rated students at baseline, after the intervention, and after a withdrawal phase. Audio recordings of each session provided the opportunity for qualitative data to be collected. Recordings were reviewed after the intervention. Descriptive information related to session activities and students’ response to the CBPT intervention was transcribed.

In the following chapters, relevant literature is discussed and detailed information related to study procedures and methodology is presented. Quantitative data from teacher ratings of student behavior are presented for each student. In addition, descriptive information related to each session’s activities and play is provided. In the final chapter,
study findings and limitations are discussed. Recommendations for future research are also presented.
Chapter 2

Review of Literature

Externalizing behaviors are an increasing concern in kindergarten populations. Externalizing behaviors are typically considered to be those behaviors “characterized by aggressive, destructive, oppositional, noncompliant, or antisocial behaviors” (Nixon, 2002, p. 525). Externalizing behaviors also include behaviors related to impulsivity and hyperactivity (Donenberg & Baker, 1993). Pianta and Caldwell (1990) found that kindergarten teachers rated approximately 20% of students as experiencing elevated externalizing behaviors; therefore, every teacher may expect to contend with externalizing behavior problems in the classroom. However, externalizing problems are more than just a behavioral concern; these behaviors are significantly related to long-term academic achievement.

Externalizing Behaviors

Research indicates that children with high rates of externalizing behaviors show academic deficits in reading, writing and mathematics throughout their years at school (Hinshaw, 1992a; Hinshaw, 1992b; Nelson, Benner, Lane, & Smith, 2004). Furthermore, research has found that externalizing behaviors are predictive of decreased academic achievement (Breslau et al., 2009; Malecki & Elliott, 2002). In a study of over 600 school age children, Breslau and colleagues (2009) found that externalizing behaviors at the age of 6 predicted both math and reading scores at the age of 17. They found that the negative relationship between early externalizing behaviors and later academic achievement persisted despite controlling for IQ and socioeconomic status. Arnold (1997) describes the link between externalizing behavior problems and academic underachievement as reciprocal in nature. Moreover, in a 20-year study, Masten and colleagues (2005) found that in addition to
early externalizing behaviors having an impact on academic achievement by adolescence, these behaviors also put students at risk for other problems in early adulthood.

Externalizing behaviors have also been found to be related to delinquency and problematic peer interactions (Fergusson & Horwood, 1995; Olsen, 1992). In a study focusing on the externalizing behaviors of children with ADHD, DuPaul, Mcgoey, Eckert, and Vanbrakle (2001) found that children with high rates of externalizing behaviors exhibited poor social behavior in addition to decreased academic functioning. The empirical evidence suggests that the relationship is cyclical. For instance, Olsen (1992) found that over time, the poor social behavior exhibited by preschoolers with high ratings of externalizing behaviors led to peer-conflict, including victimization by peers. There is also evidence to suggest that early peer rejection and social isolation has been associated with an increase in aggressive behaviors later in school (Dodge et al., 2003; Hymel, Rubin, Rowden, & Lemare, 1990).

Findings underscore the long-term effects of early externalizing behaviors. Children displaying high rates of externalizing behaviors are at risk for problems in later school years, even into adulthood (Breslau et al., 2009; Masten et al., 2005; Moffit, 1993). Richman, Stevenson, and Graham (1982) found that 60% of three year olds with high scores of externalizing behaviors later experienced behavioral difficulties as school aged children. Other studies found that 50 to 75% of preschool children with externalizing problems experienced behavioral difficulties up to 6 years later (Campbell & Ewing, 1990; Campbell, Schleifer, Weiss, & Perlman, 1977).

High rates of externalizing behaviors also have an impact on children’s classmates, teachers, and parents. Displaying high rates of externalizing behaviors is associated with a lower quality of teacher-student relationship and an increased likelihood that a teacher will
refer a student for special education services (Abidin & Robinson, 2002; Baker, Grant, & Morlock, 2008; Silver, Measelle, Armstrong, & Essex, 2005). On average, teachers spend significantly more time in conflict with high externalizing behavior students, as compared to typical peers (Jack et al., 1996). This can also impact the quality of the relationship between the child and his or her peers (Vitaro, Tremblay, Gagnon, & Biovin, 1992).

Preschool students’ externalizing behaviors have been found to impact the home environment as well, increasing family stress and affecting the quality of parent-child interactions (Baker & Heller, 1996; Campbell, Shaw, & Gilliom, 2000; Campbell, Pierce, Moor, Marakovitz, & Newby, 1996; Donenberg & Baker, 1993). Donnenberg and Baker (1993) found that parents who had children with high rates of externalizing behaviors reported a negative impact on their social life, feelings about parenting, and level of stress. These findings are supported by Baker and Heller (1996), who found that preschoolers’ high rates of externalizing behaviors were related to a negative impact on family stress and decreased parental self-efficacy.

There is strong evidence for long-term social and academic deficits related to externalizing behaviors in early childhood. Furthermore, research indicates that these children’s rates of problematic behaviors will not alter without intervention (McNeil, Capage, Bahl, & Blanc, 1999). Studies of externalizing behavior utilizing a “wait-list” methodology have found that externalizing behaviors are relatively stable over time without intervention (McNeil et al., 1999; Peed, Roberts, & Forehand, 1977, Webster-Stratton, Kolpacoff, & Hollinsworth, 1988). Identification and early intervention has therefore become an important area of focus in an effort to ameliorate the long-term negative outcomes associated with externalizing disorders (Stormont, 2002; Webster-Stratton, 1997).
**Intervention Strategies**

Classroom-based socioemotional curricula provide universal behavioral interventions for young children with externalizing behaviors. The Promoting Alternative Thinking Strategies (PATHS) curriculum, created by Kusche and Greenberg (1994), promotes improved student behavior and academic participation through social and emotional learning. Research supports the efficacy of the PATHS curriculum to reduce externalizing behaviors and promote social competence in school age children (Greenberg, Kusche, Cook, & Quamma, 1995; Kam, Greenberg, & Walls, 2003). The Al’s Pals training program (Geller, 1999) is another example of an empirically supported classroom-based intervention. The Al’s Pals curriculum is designed to promote resilience and social competency, while reducing problematic aggressive and disruptive behaviors (Dubas, Lynch, Galano, Geller, & Hunt, 1998; Lynch, Geller, & Schmidt, 2004). However, because classroom-wide interventions focus on the classroom as a whole, instead of individual students, they provide only a relatively basic level of behavioral intervention and support for students who are struggling with more significant levels of externalizing behaviors.

Parent behavioral intervention programs are another efficacious intervention strategy for addressing externalizing behaviors (Gardner, Burton, & Klimes, 2006; Hutchings et al., 2007; Webster-Stratton, 1998). The Incredible Years Parent Training (IYPT; Webster-Stratton, 2006) is based on cognitive behavioral principles and has a large body of empirical support (Jones, Daley, Hutchings, Bywater, & Eames, 2007; Taylor, Schmidt, Pepler, & Hodgins, 1998; Webster-Stratton, Reid, & Hammond, 2004). The IYPT encourages both positive parenting behaviors and the reduction of problem behaviors in young children. This is accomplished through 14-16 weeks of weekly parent training sessions to educate parents.
on effective behavior management and positive parenting behaviors (Barton et al., 2014; Webster-Stratton, 2006). The goal of the program is to educate parents and empower them to employ behavioral interventions in the home. However, these programs require a high level of parent buy-in. Four months of weekly meetings may not be feasible when parents are not highly motivated to intervene.

Treatment options for older students with externalizing problems typically include cognitive-behavioral interventions, which focus primarily on the student and do not require a high degree of parent or teacher effort. These are often more intensive interventions that are administered in one-on-one or small group sessions. In a meta-analysis of 40 cognitive behavioral therapy (CBT) interventions addressing externalizing behavior in children ranging from 7-17 years old, the mean effect size was .69 (Sukhodolsky, Kassinove, & Gorman, 2004). The 40 studies consisted primarily of short-term group CBT interventions. Sukhodolsky and colleagues (2004) found that the most effective treatments were classified as focusing on skill development. Skill development programs yielded an effect size of .79. These findings mirror previous research. An earlier meta-analysis of 23 studies also focusing on CBT treatments for externalizing behaviors yielded a similar mean effect size of .64 (Robinson, Smith, Miller, & Brownell, 1999).

There is clearly evidence to support the use of cognitive behavioral interventions to address externalizing behaviors (Lochman, Powell, Boxmeyer, & Jimenez-Camargo, 2011; Sukhodolsky et al., 2004; Robinson et al., 1999), but most studies have not included a preschool and kindergarten (under five) population in their samples (Ollendick & King, 1998). This is because most CBT studies incorporate the metacognitive strategies required for techniques like cognitive restructuring and identifying illogical thoughts. These
metacognitive tasks are thought to be inappropriate for the developmental level of preoperational preschool and primary-aged students (Shelby & Berk, 2009). This does not mean that CBT has not been attempted with younger children. There are studies that support the use of cognitive behavioral interventions with young students (Cohen & Mannarino, 1996; Minde, Roy, Bezonsky, & Hashemi, 2010; Scheeringa et al., 2007); however, these were studies related to anxiety and sexual abuse, not externalizing behaviors. CBT has been shown to be a viable option to address externalizing behaviors in older students and internalizing problems in preschool and elementary students. It would therefore add to the clinical literature to evaluate the possible benefits of a developmentally appropriate CBT intervention to address externalizing behaviors in young children. Such an intervention would incorporate play in an overarching cognitive behavioral approach in order to best meet the developmental needs of this population.

**Play Therapy**

Play has been utilized in therapeutic interventions with young children since the early 1900s (Knell, 1995). Psychoanalysts were the first to integrate play into therapy sessions with young clients (Freud, 1946; Hug-Hellmuth, 1921; Klein, 1932). Play was initially used as an alternative to free association in psychoanalysis; however, the use of play as a communication tool quickly became apparent (Russ, 2004). As psychoanalysis transitioned into other forms of therapy, play persisted as an essential therapeutic tool. Child-centered therapies, which emphasize free play as a means of communication between the therapist and client, became popular in the mid-20th century (Axline, 1950; Moustakas & Makowskey, 1952). Later, play therapy was adapted to address a variety of issues such as parent-child relationships and school-based issues (Alexander, 1964; Bratton & Landreth, 1995; Guerney...
& Guerney, 1987). By the 1980s and 1990s, the evidence in support of play therapy had established a field with a growing body of theories and approaches (Bratton, Ray, Rhine, & Jones, 2005).

There are two theoretical approaches that have been used to differentiate types of play therapy: directive and non-directive play therapy. Non-directive play therapy is based in the works of Carl Rogers (1951). Also known as child centered play therapy; non-directive play therapy holds the relationship between the therapist and the client as the primary means of therapeutic intervention (Knell, 1995). According to Knell (1995), child-centered play therapists encourage free expression and do not direct their clients in any way. The process for non-directive play therapy is relatively slow, following the client’s lead. In a typical non-directive play session the therapist will not provide questions or statements about the client’s play (Russ, 2004). Instead, the therapist waits for the client to express himself or herself during the play. Furthermore, clients are presented play materials without instruction providing the opportunity for free expression.

In contrast, directive play therapy is characterized by goal setting and a structured approach to therapeutic interactions (Knell, 1995). A directive play therapist may construct specific play settings or situations or utilize specific techniques, such as role-playing or modeling. In this format children’s play is guided towards a particular therapeutic goal or task. There is a small body of research evaluating the efficacy of directive play therapy. Of the 73 studies included in a meta-analysis by Bratton et al. (2005), only 12 evaluated directive play therapy, yielding an effect size of .71. The use of goal setting in directive play therapy typically results in a shorter length of treatment than non-directive play therapy. In directive play therapy, the relationship between the client and therapist remains important.
However, the relationship develops through structured therapy activities rather than unstructured play sessions.

Russ (2004) suggests that the effectiveness of play therapy is grounded in the four therapeutic functions that play serves. These functions are present across different approaches to play therapy. Play is first used as a method of personal communication in therapy. Children utilize play as a means of communicating information about their thoughts, feelings, and experiences. Second, play is utilized as a communication tool between the therapist and client. Third, Russ highlights that play is also a way to work through any problematic thoughts, beliefs, or experiences that are impacting the child. Play in therapy is utilized to model adaptive thoughts and beliefs within a play paradigm. Finally, play provides the client with opportunities to practice adaptive strategies, coping behaviors, and skills for use at school and home. Play that involves structured role-play and puppet play allows for children to learn and practice new social skills and coping strategies.

Play therapy has also been shown to be efficacious. In a meta-analytic review of 93 play therapy studies by Bratton and colleagues (2005), treatment effect sizes ranged from .69 to .93. Based on this meta-analysis, play therapy techniques have been applied to intervene with behaviors, social skills, personality, anxiety, self-concept, family relationships, and developmental/adaptive concerns. The measured effect size for the 33 play therapy studies that focused on externalizing or internalizing/externalizing problems ranged from .78 to .93. Bratton et al. found no statistically significant difference between the effective size of targeted interventions for internalizing or externalizing behaviors. This finding suggests that play therapy is a strong choice for addressing many types of problematic behaviors in children, including externalizing behaviors.
Cognitive Behavioral Play Therapy

Due to the success of play therapy with preschool populations, Susan Knell (1995) developed a cognitive behavioral approach that incorporates play therapy and is designed for preschool-age clients. Many practitioners feel that cognitive behavioral approaches are not appropriate for the developmental level of young children, often citing Piagetian stages of development as evidence for preschool children’s limited capacity for abstract thought (Knell & Dasari, 2009; Landreth et al. 2009). To adapt cognitive behavioral interventions for younger children, the CBT techniques used with older children are adapted to a developmentally appropriate level through the structured use of role-play, puppetry, modeling, and free play to facilitate communication and application of CBT principles (Knell, 1998; Ollendick & King, 1998). A central theme in play therapies is the use of play as a method of communication between young clients and therapist (Bratton et al., 2005). In fact, play is thought to be the innate way that children communicate (Chethik, 1989). Without the metacognitive ability to think about one’s thoughts or feelings, spontaneous play allows children to express feelings, thoughts, and experiences in a safe and developmentally appropriate environment.

Cognitive Behavioral Play Therapy (CBPT) incorporates cognitive and behavioral techniques with play therapy. CBPT is based in cognitive behavioral techniques employed by Aaron Beck (Knell & Dasari, 2009). Although CBT techniques have received strong empirical support with adults and adolescents, “clinical lore suggests that individual therapy with preschoolers must involve some level of play therapy” (Knell, 1998, p. 28). CBPT was designed to modify the complexity of cognitive behavioral techniques used with older clients into a developmentally appropriate approach for preschool and kindergarten age children by
utilizing play therapy techniques like modeling, role-play, games, and puppet play (Knell, 1998).

The first published study using CBPT was by Knell and Moore (1990). They applied CBPT techniques to address problems with encopresis. In a one-on-one, therapeutic setting, CBPT has also been documented to successfully treat young children experiencing difficulties as varied as divorce, anxiety, sexual abuse, and selective mutism in published case studies (Knell, 1995, 1998; Knell & Dasari, 2006; Knell & Ruma, 2006). Pearson (2007) utilized a CBPT group intervention based on Knell’s CBPT approach for preschoolers displaying anxiety and withdrawal. In a group format, CBPT resulted in reduced anxiety related behaviors and increased social competence based on teacher ratings.

More recently, Siahkalroudi & Bahri (2015) found CBPT lead to an increase in second through fifth-grade students’ self-reported self-esteem and social skills at an all-girls school in Iran. Another study found that CBPT was an effective intervention for 30, seven to nine-year-old students with Attention Deficit Hyperactivity Disorder (ADHD), referred to an outpatient clinic (Abdollahian, Mokhber, Balaghi, & Moharrari, 2013). CBPT was attempted with 27 elementary male students exhibiting symptoms of ADHD (Almeraisi, 2010). The treatment was applied within a school setting, but results did not indicate a change in the boys’ ADHD symptomology. Despite evidence to suggest CBPT’s success with elementary populations, no study to date has evaluated the efficacy of CBPT for children under the age of six with externalizing problems.

CBPT places cognitive and behavioral techniques within a play setting. Play activities are utilized in a goal-directed, structured, and developmentally appropriate setting as a means by which children can actively work through behavioral or emotional concerns.
Like cognitive therapy, CBPT is problem-oriented and focused on short-term treatment timelines (Knell, 1998). Cognitive behavioral metacognitive techniques, which might initially be considered difficult to apply to young children, can be modified to a developmentally appropriate level through the use of stories, puppet play, and open-ended questions by modeling for clients how to alter problematic thoughts and beliefs into adaptive self-statements (Knell, 1995). Furthermore, Knell (1995) argues that in her clinical experience, the nature of CBPT as a directive form of play therapy makes children feel safe while the use of play allows the child to control much of the therapeutic interaction.

For children who are displaying a high rate of externalizing behaviors, CBPT offers young children the opportunity to learn coping and adaptive behaviors through modeling and practicing them within a supportive environment (Knell, 1995). Knell (1995) also notes that in CBPT, children practice these skills through the use of role-play and behavioral rehearsal. Toys and puppets can be utilized to make these activities novel and developmentally appropriate. Working with a 6-year-old client with selective mutism, a therapist might utilize puppets to take on the client’s difficulties with verbal communication. The therapist will craft the puppet’s responses to provide positive self-statements related to the client’s difficulties with speech (p.154).

Even more complex cognitive techniques, like identifying and changing irrational beliefs, can be applied through CBPT strategies such as reframing a child’s disclosure into an adaptive statement. For instance, in a case study applying CBPT for children who experienced sexual abuse, a 3½-year-old child’s spontaneous, negative comments during free play are restated as positive self-statements. While playing with dolls, the child told the therapist that the doll had been hurt in the private parts. The therapist reframed this disclosure
by explaining that although the child had been hurt in the past, she was “all better” now, and her parents would make sure that she was not hurt again (p. 228). CBPT provides both the opportunity for self-disclosure in the play setting and the application of cognitive techniques for young children. In CBPT sessions, children have the opportunity to practice skills through these various presentation modalities to promote generalization to home and school.

To date, no study has investigated the efficacy of a CBPT intervention on externalizing behavior problems in kindergarten students. However, cognitive behavioral approaches are an efficacious treatment option for adolescent students (Lochman et al., 2011; Ollendick & King, 1998). Furthermore, CBPT has produced evidence of success with children who have experienced divorce or sexual abuse, both situations which are typically associated with higher rates of externalizing behaviors (Knell, 1995).

CBPT offers students the opportunity to learn adaptive behaviors through modeling and role-play. This is performed using puppets, toys, and even dramatic play (Knell, 2009; Knell & Dasari, 2009). Students are also encouraged to develop self-regulation through turn-taking games, role-play, and coping strategies. Knell (2009) notes stories, puppet modeling, matching games, and competitive games are useful. Finally, students are supported to alter negative self-talk or perceptions through the use of positive self-statements during play. Through the development of self-regulation, adaptive behavior strategies, coping skills, and positive self-image, CBPT offers students a short, developmentally appropriate method for intervention.

**Play Therapy in Schools**

Much of play therapy is performed outside the school setting by play therapists from
other agencies and in private practice (Knell, 1995). However, research supports the application of play therapy in a school setting (Drewes, 2001; Green & Christensen, 2006; Fall, Balvanz, Johnson, & Nelson, 1999; Packman & Bratton, 2003; Post, 1999). Play therapy has yielded positive effects even in short interventions of 4-6 sessions (Fall et al., 1999; Post, 1999). Although typically used with younger children, play therapy has also been found to be effective with older elementary-age children (Packman & Bratton, 2003). Based on meta-analytic data, play therapy interventions in a school setting yield a mean effect size of .69 (Bratton et al., 2005).

In addition to proven efficacy, application of play therapy in schools provides an opportunity for underserved children to access services. Many young children and adolescents in need of mental health services do not receive them (Kataoka, Zhang, & Wells, 2002; Merikangas et al., 2011). Children from low SES families or those of racial or ethnic minority families are less likely to receive mental health services. In a study of adolescents, aged 13-18, with a behavior disorder, only 45% received services from a mental health professional (Merikangas et al., 2011). Such services are important because they provide schools with the opportunity to support both the emotional and academic needs of children with only limited time away from the instructional setting.

Play therapy in schools need not conform to the timeline of outside practitioners who may expect hour-long sessions or a four to five month commitment. In fact, short-term forms of play therapy in schools have produced evidence of effectiveness (Landreth, Ray, & Bratton, 2009). Positive outcomes have been measured in interventions of 4-6 sessions, and observed in as little as two sessions within the school setting (Fall et al., 1999; Bratton et al., 2005; Post, 1999). Although there is evidence therapeutic play interventions can be effective,
given the culture of high stakes testing in schools, teachers are generally unlikely to refer students for therapeutic interventions because of the possibility for extended periods of missed academic instruction (Dollarhide & Lemberger, 2006). This is a concern when children are engaging in problematic behaviors that interfere with learning. Accordingly, in order to maximize both academic and therapeutic goals, it is necessary for school psychologists to have the ability to offer short, intensive interventions to young children within their learning context to address a number of behavioral and emotional problems.

While there is evidence to support the use of non-directive play therapies in the school setting (Johnson, McLeod, & Fall, 1997; Landreth, Ray, & Bratton, 2009), the non-directive approach has a number of drawbacks. In non-directive play therapy, the therapeutic progress is the responsibility of the child. Without a directive or structured role, the therapist merely serves as a mirror to facilitate reflection on the part of the child (Knell, 1995). This perspective is incongruent with modern school practices of goal setting and progress monitoring. Furthermore, non-directive play therapy is a relatively slow method of therapeutic intervention. This is generally thought to be difficult to maintain in a school setting, with students typically seeking such services outside of school. A more appropriate theoretical approach to non-directive play therapy is the short, structured, and directive format of a cognitive behavioral play approach.

There are a number of characteristics of CBPT that lend themselves to a school based setting. First, CBPT has a relatively short timeline of treatment compared to more traditional play therapy techniques (Knell, 1995; 1998). Dollarhide and Lemberger (2006) found that the demands of high stakes testing made teachers less comfortable with students being pulled-out during academic periods. CBPT helps reduce the time students are pulled out of
their classrooms, making teachers less resistant to mental health interventions. Second, CBPT is goal-directed and problem-focused, which is similar to other school based interventions such as individualized education goals or curriculum based benchmarks. Finally, CBPT’s behavioral focus is in line with other behavioral strategies used by teachers and practitioners such as behavior plans and differential reinforcement.

As the preceding discussion indicates, kindergarten children displaying high rates of externalizing behaviors are at risk for academic and social deficits. Without intervention, the impact of these problematic behaviors can follow students into adulthood. CBPT is a viable approach for direct intervention of externalizing behaviors for young students. A CBPT intervention is appropriate for a school environment and offers the opportunity to support children without outside access to mental health service. It has also been found to be effective to address a variety of presenting problems, including internalizing behaviors. This study evaluated the effectiveness of using a school-based CBPT intervention to address externalizing problems in kindergarten students.
Chapter 3

Methods and Procedures

The purpose of this study was to measure and describe the possible benefits of utilizing CBPT as a school-based, short-term intervention for kindergarten students with at-risk or clinically significant levels of externalizing behaviors in the classroom. A single subject design was utilized to provide quantitative and qualitative information to measure the effects of the intervention in a small sample format. This chapter includes detailed descriptions of the research question, participant selection, instrumentation, procedures, and statistical methods utilized in the study.

Research Question

Will the implementation of an eight week, 30 minutes per week CBPT intervention within the school setting be associated with a practically important decrease, defined as a decrease of 5 to 10 points on the BASC-2 T-scores, in teacher ratings of externalizing behaviors on the BASC-2 Teacher Rating Scale, Preschool Form in a small sample of kindergarten students?

Definition of Terms

Externalizing behavior. In this study, externalizing behaviors were defined utilizing Nixon’s (2002) description of externalizing behavior. Externalizing behaviors include those behaviors “characterized by aggressive, destructive, oppositional, noncompliant, or antisocial behaviors” (p. 525). Elevated externalizing behaviors were operationally defined by at-risk or clinically significant T-scores on the Behavior Assessment System for Children – Second Edition (Reynolds & Kamphaus, 2004; BASC-2) that have a negative impact on students’ school functioning.
Cognitive behavioral play therapy. For this study, the cognitive behavioral play therapy intervention was modeled on the work of Susan Knell (1995, 1998, 2009), utilizing cognitive and behavioral therapy techniques within a play setting for preschool and primary school children. Based on Knell’s work and the work of her colleagues (Knell & Dasari, 2009), the cognitive behavioral play therapy intervention utilized a directive style of play therapy to focus on specific intervention goals and practice learned cognitive and behavioral strategies and skills.

Participant Selection

Students were recruited for the study from a small, Mid-Atlantic, rural school district. In the student population of 1,800 students, 11.9% were below the census poverty rate, and 38.2% were enrolled for Free and Reduced Price Lunches, based on 2012 federal census and education statistics (Federal Education Budget Project, n.d.). The Federal Education Budget Project (n.d.) also provides information regarding district demographics; 97.8% of students identify as Caucasian, .09% identify as Hispanic, .08% identify as African American, 0.2% identify as Asian, and 0.2% identify as American Indian. During the recruitment and data collection year, the investigator was employed by the school district as a full-time school psychologist intern.

Kindergarten students, aged 5 years, were the focus of the present study. Students eligible for the study were nominated by their teacher, displayed high rates of aggression and/or hyperactivity, and met inclusion criteria. To meet inclusion criteria, students had to receive at-risk (T-score > 60) or clinically significant (T-score > 70) scores on one of the three scales relating to externalizing behaviors on the BASC-2, the aggression subscale, hyperactivity subscale, or the externalizing problems composite. Furthermore, students who
had Individualized Education Plans (IEP) for the disability categories of Intellectual Disability, Autism Spectrum Disorder, or Developmental Delay were excluded from the sample.

Six students were identified from two kindergarten classes with teachers who consented to participate in the study. Of these six, four consent forms were returned. One student did not meet inclusion criteria and was withdrawn from the study. One student’s consent form was returned after data collection was finished and was not included in the study. Therefore, the sample was comprised of two kindergarten students. The two students came from the same classroom, one male and one female. Both students met all outlined inclusion criteria. Based on teacher ratings, their behaviors rose to a level that their teacher felt was disruptive to the learning environment.

In order to maintain confidentiality, names and personal details about the students and their families have been removed or changed. John, a Caucasian, male student was the first student-participant in the study. He was five years and three months old at the start of the intervention phase. John presented as appropriately dressed and well groomed. His height was typical of same aged peers, and there were no observable physical concerns noted. However, John came to most sessions with a cough or a runny nose. His teacher noted that John had been frequently sick during the fall and winter; he did not appear tired or otherwise ill during sessions.

Ashley was the second student-participant in the study. She was a Caucasian female student who was five years and five months at the start of the intervention phase. Ashley presented as well dressed and groomed, often in matched outfits. Her height was typical of
same aged peers, and there were no observed physical concerns noted. Ashley appeared healthy during all sessions.

**Instruments**

Externalizing behaviors were measured using the Behavior Assessment System for Children – Second Edition (Reynolds & Kamphaus, 2004; BASC-2). The BASC-2 offers teacher rating forms for children aged 2 years and 0 months to 21 years and 11 months. The BASC-2 is a comprehensive measure of student behaviors in the classroom, covering internalizing and externalizing behaviors and adaptive skills. For the present study, the Preschool Form of the Teacher Rating Scales (TRS-P) was utilized. The BASC-2 TRS-P is applicable for students aged 2 years and 0 months to 5 years and 11 months. It includes 100 questions related to student behaviors.

The TRS-P utilizes a 4-point response format (N for Never, S for Sometimes, O for Often, and A for Almost Always) for classifying responses. Teacher responses were totaled by the BASC-2 ASSIST PLUS computer scoring system and converted to norm-referenced T-scores for clinical interpretation. On the BASC-2, T-scores have a mean of 50 and a standard deviation of 10. T-scores above 70 on the problem behavior scales are considered to be “clinically significant.” T-scores between 60 and 69 are considered to be “at-risk.” On the adaptive scales, scores below 30 are “clinically significant” while scores between 31 and 40 are “at-risk.” For the present study, the problem behavior scales specific to externalizing behavior were of focus. The adaptive scales were not included as outcome variables to evaluate the CBPT intervention.

The BASC-2 ASSIST PLUS computer scoring program allowed for multiple ratings for progress monitoring purposes. The BASC-2 manual suggests that the progress monitoring
option is useful for evaluating behavioral changes due to treatment or intervention (p. 89).

The software provides comparisons among a maximum of three ratings from the same form completed at separate times. The BASC-2 manual provides no specific time window between ratings. The progress monitoring option is available for all age groups of the TRS, as well as the parent (PRS) and student self-report (SRP) forms. The progress monitoring comparisons are not available through the manual scoring option.

The scoring process for the BASC-2 yields both subscale and composite T-scores on the preschool-age TRS. Subscales include: Adaptability, Aggression, Anxiety, Attention Problems, Atypicality, Depression, Functional Communication, Hyperactivity, Social Skills, Somatization, and Withdrawal. These eleven subscales combine into four composite scales: Internalizing Problems, Externalizing Problems, Adaptive Skills, and a Behavioral Symptoms Index (BSI), which provide measures of global behavioral areas. In addition, scores for rater consistency and response pattern are provided. For the present study, the subscales of Aggression and Hyperactivity, as well as the Externalizing Problems Composite were targeted outcome variables for the intervention. The Aggression subscale of the BASC-2 focuses on behaviors that may appear threatening to others, while the Hyperactivity subscale includes questions about impulsive or overly active behaviors. The Externalizing Problems composite is a global behavioral measure of both the Aggression and Hyperactivity subscales.

Tan (2007) investigated the technical adequacy of the BASC-2. The norming sample for the TRS-P form included a nationally representative sample of 4,650 students. The sample was based on the 2001 Current Population Survey, including sex, race/ethnicity, socioeconomic status, geographic region, and special education classification. Evidence for
internal consistency exceeded .90 for the BSI, Adaptive, and Externalizing composites on the preschool TRS. The Internalizing composite was lower, in the high .80s. The reliability of individual subscales had a median score of .84 for the preschool scales. Test-retest reliability for the TRS forms ranged from the middle .80s to the high .90s, with median interrater reliability for the preschool form at .65. Tan also found appropriate evidence of construct, criterion-related, and diagnostic validity for the BASC-2. Tan described the BASC-2 as well researched, yielding scores that are both valid and reliable (p. 124).

**Cognitive Behavioral Play Intervention**

The CBPT intervention was implemented in one-on-one, 30-minute sessions once a week. The intervention lasted a total of eight weeks. Play materials were selected for the intervention based on recommendations from play practitioners. Cattanach (2009) writes that toys vary among play therapists. However, she recommends employing a variety of sensory play materials; figurines depicting people, animals, and other appropriate items; dolls and puppets; materials for drawing or painting; and dress up clothing for pretend play as part of a play therapy toolkit.

Toys and materials selected for the present study included: modeling clay with tools to shape and cut the clay, soft foam building blocks, animal hand puppets, child hand puppets (varying by skin tone, gender, and hair color), human and animal figurines that could be held or function as finger puppets, transportation figurines in the shape of cars, airplanes, tree, and street signs, an eight piece box of crayons, and a board game for rapport building. Figure 1 provides a picture of the child hand puppets utilized for role-playing in the CBPT intervention. These puppets were the primary toy utilized as part of structured activities. Each puppet had a name that was consistent across sessions, unless changed by the student.
As a note, dress up clothing was not included as part of the intervention due to concerns related to time constraints. During the intervention phase, the school psychologist varied the toys brought for each session. The figurines and puppets were brought to every session, but the sensory and other free-play toys were alternated to increase novelty.

*Figure 1.* Child hand puppets utilized as part of the CBPT intervention.

Sessions were conducted in a small conference room inside the students’ elementary school. The room included a large wooden table, six adult-sized chairs, and a large window looking out on the school parking lot. The conference room had white cinderblock walls with no artwork or decoration. No other furniture was placed in the room except for a small desk in one corner with a box of tissues and a phone. The large wooden table and the matching six wooden chairs consumed most of the space in the room. There was a small, square area on the carpeted floor near the door that was utilized for block play in one session, but play was primarily focused on the table due to space constraints. This was a novel room for the students, as they did not receive instruction or other interventions in the room. Used primarily for teacher and parent meetings, both students indicated that they had never been in
the conference room before. Students were usually seated to start the session with their backs to the window, with the school psychologist seated at a 90-degree angle at the head of the table. All play materials were brought by the school psychologist in a large bag that was placed out of the student’s reach. The school psychologist also brought the session agenda and audio recording device to every session.

Each session had a goal or specific skill of focus to help direct the interaction of the school psychologist and student. Early sessions provided the opportunity for the child and school psychologist to establish rapport, while later sessions included a cycle of (a) teaching appropriate behavior through modeling and discussion, and (b) the opportunity to practice skills through role-play and games. Each student received the same progression of sessions. The treatment was as systematic in format as possible to maximize the fidelity of CBPT implementation. For example, each week had an agenda listing the goals, skills, activities, and materials to be utilized in the session. The agenda was the same for each student. A detailed description of each session is included below.

**Intervention Plan and Procedures**

The study was approved by the Pennsylvania State University Office for Research Protections Institutional Review Board. Permission from the school district was documented and obtained as part of the IRB process. After IRB approval, a group of kindergarten teachers was contacted via email to participate in the study. They were sent a recruitment letter describing the study and a consent form was attached. Teachers also received an in-person visit to answer any questions they might have about the study. Three teachers felt they had students who might benefit from the study and agreed to participate. After the signed teacher consent form was obtained, recruitment packets were sent home via the student’s backpack.
The packet sent home to parents explained that their son or daughter had been nominated for the study by the child’s teacher. The packet included a recruitment letter, providing a description of the study and the informed consent form.

When consent forms were returned, signed by the student’s parent or guardian, the teacher was given the BASC-2 to provide a baseline rating of classroom behaviors (#1 of 3). If teacher ratings met inclusion criteria (i.e., T-scores >60 for at least one of the three scales related to externalizing behavior on the BASC-2 TRS-P), and he or she was not diagnosed with an Intellectual Disability, Autism Spectrum Disorder, or Developmental Delay, he or she would meet criteria for the study. If teacher ratings were not elevated (i.e., a T-score <60 for all three scales related to externalizing behavior on the BASC-2 TRS-P) a letter was sent home notifying parents that their son or daughter had not meet inclusion criteria and was withdrawn from the study.

After informed consent and inclusion criteria were met, the intervention could commence. The intervention consisted of eight 30-minute sessions, one per week. While efforts were made to have the session on the same day of the week, winter weather, holiday breaks, and student absences impacted scheduling. However, sessions consistently occurred once every calendar week, with an average of 6.7 days between each session.

Audio recordings, recorded using an Anybest® digital voice recorder, of each session provided the opportunity for qualitative data to be collected. Audio recordings were reviewed by the school psychologist after the intervention had ceased to allow for detailed session notes. Information related to student’s preferred toys, student response to presented skills and tasks, student application of taught skills, and general rapport were areas of focus for the audio recordings. As topics discussed tended to vary based on the student, no coding system
was utilized for session note taking. Instead observations, descriptions of activities, and student responses were transcribed by the school psychologist from the audio recordings.

At the end of the eight-session intervention period, the teacher provided ratings for each student (#2 of 3). These ratings were completed within a week of the last session. After the eighth and final session, a four-week withdrawal period was implemented. The school psychologist did not meet with students or engage in any treatment or intervention during this period of time. At the end of the four weeks, the teacher provided a final rating of the child’s classroom behaviors (#3 of 3), focusing on his/her behavior in the most recent month, as a measure of post-intervention effects. After collecting the final ratings from the participating teacher, parents were sent a letter notifying them that data collection was finished and offering to provide information about the results of the study once completed, with the school psychologist’s contact information included. After the letter de-briefing parents was sent, all communication related to the study ceased.

**Schedule of Sessions**

**Week one.** This session was an introductory session. The psychologist’s goals were drafted prior to the first session based on teacher ratings, but were left open for modification after this first interaction. Students were introduced to the purpose of the sessions. The eight-week timeline was introduced, and students had the opportunity to ask questions about the psychologist and the weeks ahead. After the student gave assent to participate in the sessions, the student and psychologist played a variety of introductory games to build rapport. A structured board game was utilized to evaluate self-regulation and turn taking skills, as well as build the therapeutic relationship. The puppets were also introduced to the student. Each puppet was named and talked about briefly. Puppets were provided with a
story, highlighting the specific emotional or behavioral concern that matched the student’s needs and goals. The student was given the opportunity to play with the puppets and any other toys that had been utilized in the session for an unstructured play period to close the session.

**Week two.** This session reiterated the information from the previous session (timeline, puppet introduction, etc.). The students were given a period of non-directive play before the psychologist began to focus on the student’s reported externalizing behaviors. The psychologist chose the most appropriate puppet based on information gleaned from the first session and the goals formulated prior to starting the intervention. Then the puppet was placed in a frustrating situation, to which the puppet did not know how to respond. The psychologist introduced an emotional thermometer, developed by Webster-Stratton & Reid (2003; as cited in Feindler, 2009). The student and school psychologist discussed what anger/frustration physically felt like. The thermometer was an illustration with blocks ranging from green at the bottom of the thermometer, indicating “calm,” to a black section at the top of the thermometer, indicating “very mad or upset.” The student was asked to place the puppet’s emotion on the thermometer, in the green, blue, yellow, orange, red, or black range of emotion. This task also supported emotion-related vocabulary and expression. The psychologist asked the student to problem-solve for the puppet, providing scaffolding when needed. Once alternative behaviors were presented, the student and psychologist played through the situation again, with slight changes to the setting or puppets involved.

**Week three.** Session three began with an unstructured play period, with free choice of toys or materials, and transition into a directed play session. The psychologist provided the student with a new, frustrating situation during the puppet play session. Changing the
setting and puppets involved was intended to promote generalization in the student. The student was given the opportunity to apply adaptive coping strategies without direction before the psychologist stepped in to either correct or scaffold the student’s role-playing. Based on how quickly the student grasped using the coping skills and emotional thermometer, the puppet was asked to utilize the emotion thermometer to practice identifying emotions.

**Week four.** The student was reminded that he/she was halfway through the eight weeks, explaining to the student that there would be four more sessions to come. The focus of this session was to model positive self-statements for the students. The student was given the opportunity to play freely, while the psychologist applied positive self-statements to the play of choice. If the student’s play was not appropriate, the psychologist encouraged a more directive play task with the student. The positive self-statements focused on talents, characteristics, and other positive statements that were appropriate in the play setting. The purpose was to introduce this cognitive concept before applying positive self-statements during directed periods of play. In the second half of the session, students selected a preferred puppet or the school psychologist drew characters with crayons. The students were asked to help the puppet/character identify the emotion on the emotional thermometer, then utilize problem solving and coping skills.

**Week five.** This session was less structured than previous sessions. This session gave the psychologist the ability to gauge the student’s spontaneous application of strategies and coping skills. After interacting in free play, the psychologist provided the student with situations that would allow the student to utilize coping skills. In this session, the goal was for the student and psychologist to work collaboratively and allow the student to start to
become more independent. When students appeared comfortable using the strategies, positive self-statements were applied to build confidence with skills. When a student seemed unprepared to apply the learned skills independently, the psychologist provided a more directive role, changing the play, redirecting student comments, and modeling for the student the adaptive strategies presented in the previous sessions.

**Week six.** The sixth session included an assessment of coping skills utilizing a variety of scenarios to promote generalization and independence in a structured task. Students were presented with a scenario and had to choose one of the learned strategies to apply to the appropriate situation. For the areas in need of correction or further instruction, the psychologist role-played the situations with the student. The puppets or toys were used for these role-plays. The student was also given some free time to play with the psychologist.

**Week seven.** In this session, the student was prepared for the termination session. The psychologist and student discussed possible feelings about termination. Possible feelings related to termination were modeled by the school psychologist, if needed. The psychologist highlighted the positives of termination and provided explicit praise of the student’s progress over the past seven weeks. If the student appeared upset by the prospect of termination or did not seem to comprehend what termination meant, the psychologist and student role-played a hypothetical termination with the student. Discussion during play highlighted how the student would manage behavior after the termination week. If there was time, the psychologist also had the student practice using learned coping skills before the end of the session.

**Week eight.** This was the termination session; students were given the opportunity to play with toys or games of their choice to close out their experience. This session had some
free play, but focused primarily on the skills students learned during the previous sessions. Students were reminded early in the session that it was the termination session and what termination means. The school psychologist modeled possible feelings a student may feel during termination, and reassured the student with positive reinforcement (i.e., very proud of student’s hard work, will miss seeing the student, happy student has learned so many new skills). Termination also included the puppets saying that they will miss the student as well. Students were given the opportunity to say “good bye” to the puppets. The student was also presented with a certificate to mark his/her completion of the eight weeks. Students who appeared upset about termination were allowed to bring a favorite puppet with them through the halls to say goodbye before entering their classroom.

**Statistical Analyses**

The present study utilized a single subject design. As such, student data was analyzed based on three points of data collection: baseline, intervention, and withdrawal. Teacher ratings from the BASC-2 TRS-P were measured to determine any reduction in observed externalizing behaviors for the intervention and withdrawal stages, as compared to baseline ratings of externalizing behaviors. Teacher ratings of externalizing behavior from the BASC-2 TRS-P were analyzed through the BASC-2 ASSIST PLUS program. This program provided both a graphical representation of the three T-score ratings across the three phases and calculated norm-referenced T-scores for comparisons between the three rating phases. Comparisons between T-scores were considered to indicate a practically important change in behavior if a decrease of at least 5 points on the BASC-2 T-score was measured.
Chapter 4

Study Findings

This study was designed to investigate the possible benefits of utilizing a cognitive behavioral play intervention for kindergarten students with elevated levels of externalizing behaviors in the classroom. A single subject design was utilized to evaluate changes in teacher reports of student behavior across three time periods. Teacher ratings of student aggression, hyperactivity/impulsivity, and overall externalizing behavior using the Behavior Assessment System for Children – Second Edition, Teacher Rating Scale-Preschool Form (Reynolds & Kamphaus, 2004; BASC-2 TRS-P) were the dependent variables. This chapter includes the findings of the study, detailing the quantitative results of teacher ratings of externalizing behavior and qualitative results from session recordings and notes.

Participant 1: John

John’s classroom teacher nominated him for this study due to concerns related to hyperactivity and impulsivity. After consent was obtained from John’s parent/guardian and teacher, John’s behavior was rated via the BASC-2 TRS-P. John’s kindergarten teacher provided ratings that met inclusion criteria guidelines. For the BASC-2 TRS-P, she provided scores in the at-risk range for the Hyperactivity subscale and Externalizing Composite.

When evaluating teacher ratings, the BASC-2 validity indices were also considered. The validity indices of Response Pattern and Consistency were deemed acceptable; however, the F-index, which measures a negative response style, was deemed to be elevated. For the initial rating of classroom behavior, prior to inclusion in the study, John’s teachers’ F-index score of 2 was one point above the typical threshold. Her ratings indicated that John almost always “gets sick” and “acts confused.” However, when discussing scheduling sessions for
John, his teacher reported that she would prefer a non-academic time period because he had been frequently absent in the early months of school due to illness, missing a considerable portion of instruction. Considering this, John’s teacher’s scores appeared to be appropriate ratings and not indicative of a highly negative response style. John was included in the study. For the later two ratings of classroom behavior, after the intervention and withdrawal phases, all validity indices were within the acceptable range.

**Timeline of Sessions: John**

11/6/14 at 1:15 pm: John went easily with the school psychologist after only a brief introduction from his teacher. He appeared excited and was not particularly interested in the description of the next eight weeks. However, when asked to provide assent to participate in the sessions, John said “yes” without hesitation. During the first session, the goal was primarily rapport building. John did not engage in pretend play until modeled by the school psychologist. While playing with the blocks, the school psychologist started to describe what she was making. John chose to make the same structure, mirroring the topics and style of the psychologist’s play. John’s other form was play was tumbling block structures. He tumbled his blocks and the structures made by the psychologist. He also displayed competitive behavior, altering the rules of the board game to give him extra turns and making clean-up a race. The psychologist refrained from a high rate of behavioral redirection, but did require John to wait his turn during the board game. She consciously lost the first and third game, and won the second in order to gauge his reaction to each circumstance.

Towards the end of the session, the child hand puppets were introduced. Each puppet had a pre-determined name and some personality traits. The school psychologist put the puppet on, provided a short introduction about the puppet and then had the puppet interact
with John. John did not find the introduction engaging, but appeared to enjoy playing with
the puppets. He was so curious about what was in the school psychologist’s bag that it had to be moved away from the table to maintain his focus. At the end of the play session, John was again asked if he wanted to participate next week. John indicated agreement.

11/12/14 at 1:15 pm: The second session started with the school psychologist reiterating the introductory information from the first session. The free play session consisted of play with blocks. John appeared to enjoy playing with the blocks, particularly the same style of tumbling play that was observed in the first session. John built towers to break them, sending blocks flying around the small room. The session then transitioned into a directed role-play activity. The psychologist introduced James, the puppet. James had trouble focusing in school and keeping his body quiet. The school psychologist presented James with a frustrating task and then introduced the emotion thermometer, describing the physical feelings of frustration and anger. John was able to describe feeling “mad,” but did not find the thermometer appealing. When asked to place James on the thermometer, he ignored the request. However, he was able to role-play alternative behaviors, like asking for help, through role-play. The puppet Alex, who gets angry easily, was also presented. John again did not employ the emotion thermometer, but finished the role-play identifying the emotion and using the modeled alternative behaviors and coping skills. The session finished with John and the school psychologist free-drawing for the last five minutes.

11/20/14 at 1:15 pm: Session three began with John choosing a free play toy. John chose the foam blocks. John asked the school psychologist, “Wanna help me?” The school psychologist and John built a castle and a tree house during the free play session. Although John appeared to enjoy tumbling structures, he did not want his to be broken. He was clear
with the school psychologist, saying, “You can help me with the Castle, but don’t break it.” Each time John noted this concern, the school psychologist provided him with reassurance that she will “try very hard not to.” John was directive during the play session, telling the school psychologist where and how to place blocks. John asked to color as well during the free-play period. He chose to draw a green house with black oval figures outside. He described the house as a haunted house with two ghosts. The school psychologist mirrored his coloring, but described her ghosts as a family. John liked this idea.

The session then transitioned to the structured puppet activity. The activity utilized the animal hand puppets. The setting was playing the game “duck, duck, goose.” One of the puppets pushes the elephant puppet. John was asked to problem solve for the elephant. John’s first response was to laugh at the situation. He required prompts to help the elephant figure out what to do. However, once reminded that the other puppet’s actions had hurt the elephant, John moved through the problem solving activity. The emotion thermometer was not utilized, as John had not responded positively to it in the previous session. In the final play situation, John and the school psychologist were both playing with animal puppets. John wanted to play tag, but was aggressive in his play. The school psychologist’s animal said, “I feel sad. It is not fun when I loose all the time.” John responded appropriately, asking the animal to play and allowing the school psychologist’s character to win. At the end of the session, John had successfully problem solved for his own puppet and the elephant in the two play situations.

11/25/14 at 1:15 pm: John was reminded at the beginning of the session that he was halfway through the eight sessions. He appeared to understand this, but was not upset or concerned. The session involved minimal free-play. The first activity utilized the molding
clay as the school psychologist introduced and modeled self-statements. The school psychologist and John played with molding clay. The school psychologist provided statements for John based on what he was doing and how he was acting. For instance, the school psychologist noted that John was “a good friend” after John shared a number of tools with the school psychologist. John did not respond to this comment. He was not focused on the discussion, but rather the toys and play. However when the school psychologist noted that John was a “great builder.” John responded, “Yea, I can build a tree house!” John smiled and continued building. He built a snowman that he asked the school psychologist to keep on the table after the end of the session.

The school psychologist then transitioned into an emotion recognition task. She drew a picture of three students. Two students were pictured playing with blocks on a table; the third student was standing at the edge of the picture. The school psychologist asked, “Which one do you think is happy?” and, “Which one is sad?” John identified the two playing students as happy and the other student as sad because, “she had no friends.” John was then asked to problem solve for the sad student. He suggested that the sad student ask to play with the other two students. John told the school psychologist to “change sad to happy” on the piece of paper, because now she had friends. During the drawing activity, John maintained strong attention and little excess physical movement. He appeared engaged by helping the sad student. The school psychologist praised his efforts.

12/5/14 at 11:00 am: The session was less structured to gauge how John would employ some of the learned skills that had been covered in the last four sessions. The session started with a free-play. John asked to play with the foam blocks. John asked the school psychologist to play with him, but reminded her not to knock his house down. John showed
some developing pretend play skills in the session. He built a tree house and described for the school psychologist that he lived in the tree house with his friend (two cylindrical blocks). This play session lasted approximately five minutes. John displayed less destructive play during this session. When John reminded the school psychologist for a second time not to knock over his blocks, the school psychologist asked, “How would you feel if I wrecked it?” John responded, “I’d feel sad.” Unfortunately it was at this time that the school psychologist’s fingers slipped and knocked over a corner of the tree house. John became upset, “Hey! That wasn’t nice,” he said. The psychologist responded, “I’m sorry! My fingers slipped.” John calmed down quickly saying quietly, “...wasn’t nice. Don’t break it this time.” After playing with the blocks for a few minutes more to rebuild John’s tree house, the session transitioned to play with the figurines.

John wanted to play “freeze tag.” As part of the tag game, John employed more aggressive play. His figurines would tag the school psychologist’s figurines, but his figurines were not considered tagged. The school psychologist’s figurines expressed frustration attempting to re-direct the play, “I don’t want to play this game anymore.” John did not appear upset by this statement and happily offered to play something else.

The school psychologist offered for John to draw the freeze tag game that he wanted to play. When John got the piece of paper, he drew a gun. When the school psychologist asked about the gun, John disclosed that his father hunts. John then offered to draw a gun on the school psychologist’s piece of paper. She said, “It is kinda scary.” John responded, “They are just play guns.” The school psychologist re-directed the conversation on her own piece of paper, where she drew friends playing tag. John contributed to the picture, drawing himself
playing tag with the two other figures. John and school psychologist played until the end of the session.

12/15/14 at 1:15 pm: This session was rescheduled due to John’s absence from school on 12/12/14. This session included the coping skills role-play assessment. After the previous session, which included a number of tangential conversations, the school psychologist chose to provide John with a plan for the session and set expectations for what they would be doing for the day. John was presented with four scenarios: in the classroom and frustrated by work; at recess and a peer won’t share; in line and a student pushes you; and playing in the classroom when you smash a student’s blocks. For each scenario John was presented with the setting and using the child hand puppets, he was asked to role-play through the scene. The goal was for John to problem solve for each student, utilizing coping skills like stopping to identify his emotion and make a better choice, employing deep breathing to calm down, talking to an adult, and apologizing.

John had difficulty working through the scenarios independently. In each scenario John required prompting to identify appropriate coping skills for each scenario. After each instance John was asked to practice the play situation again, modeling how to respond and then letting John practice. After the assessment was complete, John and the school psychologist did a brief free play until the end of the session. John employed a character he had introduced at the start of the session. This character was the “bad man”, identified by John holding up his right index finger. The bad man would knock over toys and laugh with a high-pitched, villain-style laugh. The school psychologist responded to the bad man by having her characters narrate their feelings and express a desire to avoid the bad man. This
response did not change the bad man’s behavior. The presence of the bad man had not been extinguished the end of the session.

12/19/14 at 1:45 pm: John and the school psychologist played with the foam blocks while the school psychologist prepared John for the termination session next week. The psychologist presented possible feelings about termination and highlighted the positives of termination. She also provided praise for the student. John appeared somewhat distracted by the blocks, but did not appear upset about termination during the discussion. However, John’s play became more aggressive after the termination discussion was finished. The “bad man” from the previous session came back to John’s play, knocking down structures and laughing. As John’s play began to escalate, the school psychologist re-directed John to a different form of play.

The school psychologist asked John to color. She asked John to “draw the bad man.” John agreed, drawing a figure in red. He named the bad man John. When asked about the bad man’s family and friends, John indicated that the bad man was by himself. After drawing the bad man, John drew two other figures in black. He named them Ojp and Olt. They were not described as friends. After conversation about the bad man stalled, the school psychologist decided to re-direct John’s attention, offering him the foam blocks.

John played with the blocks, building a castle. His play was less aggressive and the bad man did not play for the rest of the session. After a few minutes, John was presented with the puppets. John’s puppet, Teresa, was acting in a withdrawn style during the play session. The school psychologist modeled appropriate social skills. Her puppet asked, “Teresa, you look upset.” Teresa did not respond. After asking about feelings, Teresa indicated that she was sad because no one wanted to play with her. John had set up a play scenario in a similar
style to previous sessions. The school psychologist asked him what Teresa should do next.
John worked through his own scenario. He asked the school psychologist to help him build.
The play scenario finished with the puppets playing successfully.

12/22/14 at 10:30 am: In the final session, John was again introduced to the concept of termination while he and the school psychologist played with the foam blocks. John appeared upset at the thought of termination, saying, “Why? I thought you were going to pull me again.” It was at this point that the “bad man” returned to John’s play. When again asked how John’s friends react to the bad man, John reiterated that he “had no friends.” The school psychologist presented the animal figurines to play through a scenario similar to the bad man. Mr. Bear was sad. Mr. Bear didn’t know what to do to not be sad. Mr. Bear needed John’s help to problem solve for him. John was not able to successfully problem solve for Mr. Bear. John then began to put all the puppets in to the box, saying, “Sorry, have to go!” to each puppet. John indicated later that the puppets were sad and mad, which was why they had to go in the box.

The school psychologist presented John with the certificate of completion, providing positive reinforcement related to John’s hard work and learning. The school psychologist expressed that she would miss John, as would the puppets, but they would be happy knowing that he was making good choices in his classroom. Although John appeared to have calmed down while talking to the school psychologist, when she offered to say goodbye to the puppets, John started to throw the puppets. The school psychologist asked John to stay a little longer to help him calm down. She also asked John if he would like to bring James, a preferred puppet, with him in the hallway until he got to this classroom. John agreed to this idea. Upon leaving the play room John’s mood calmed considerably. His affect became more
positive as he moved through the hallways to his classroom. John said goodbye to James easily before entering his classroom.

**Response to CBPT Intervention**

Each session was audio recorded with a handheld recorder. Students were aware that they were being recorded. Session audio recordings were reviewed during and after data collection. The recordings were utilized to take detailed case notes and provide qualitative information related to building rapport, students’ response to the play techniques and activities, preferred toys or materials, and other observed factors that impacted session success.

**Building rapport.** John was introduced to the school psychologist by his teacher. He came willingly with the school psychologist and appeared comfortable during the first session’s activities. During the first session, a variety of toys and games were introduced to evaluate preferred activities. John immediately showed an interest in the set of multi-color building blocks. He started by creating structures and knocking them down. John also showed positive affect toward the competitive game, a tic-tac-toe style board game. John was highly motivated to win. He was less interested in the puppets that were introduced in the first session; it took him a few sessions to want to play with them. To re-establish the therapeutic relationship each week, a short free-play was conducted before starting more structured and directive play activities at the beginning of each session. It served as a helpful transition from schoolwork to “play-work.” John appeared comfortable and wanted to engage with the school psychologist. He invited the psychologist to play with him, often asked for her help when building large constructions, and created figurines with molding clay for the school psychologist to keep after the session.
**Intervention challenges.** As a student with elevated rates of hyperactivity, John struggled with attention during sessions. It was important to change activities frequently and utilize toys that were motivating and interesting to John. Employing repetition when giving directions or setting a role-play scenario was necessary. Furthermore, providing the “agenda” to John became a useful strategy employed in later sessions.

Two activities were less successful with John. First, John did not respond to the scenarios and activities related to self-statements. He did not respond to modeled self-statements, often not attending to them despite repetition. The emotional thermometer activity also was not interesting for John. However, clinical observation indicated that John was often able to identify his emotions without use of the thermometer. With minor adjustments, the emotional thermometer was phased out and other emotional identification activities were employed. For instance, in session four, John moved through the emotion identification scenario through a drawing activity. The psychologist drew a group of students playing and a student by herself. John was able to successfully identify each student’s emotions and then problem solve and draw solutions to the “sad” girl’s situation.

**Intervention successes.** The toys brought with the psychologist changed from one session to the next, which appeared to keep interest high. John was always quick to inquire about which toys were in the bag. John was slow to warm up to the larger, hand puppets in early sessions. However, play scenarios were successful using other puppet-style toys like animal hand puppets and a set of family finger puppets. John appeared to find the animal puppets most engaging.

There was also a successful response to a number of the structured play activities that were presented. First, John had a strong reaction to a number of play scenarios that required
him to problem solve for a puppet. This was evidenced by John repeating these play scenarios after the structured problem solving activity was completed. He would re-enact role-plays related to asking friends to play, being a new student, and engaging in pushing and other aggressive behaviors with peers. After playing through the role-play initially, John was able to re-create the scenario and practice the skills with a higher level of independence.

The coping skills scenario game from session six was a successful way to measure progress with skills. It allowed for the evaluation of independent skills related to emotional identification, social problem solving, and coping skills. Starting with minimal scaffolding allowed the school psychologist to determine which skills the student had mastered. In the instance of this intervention, it suggested that John was not yet independent in many of the learned skills. While able to mimic skills directly after they were modeled, John had trouble applying skills from the previous week without prompting.

The interactions related to termination were also successful for John. John initially showed resistance to termination on the last day. He engaged in a high rate of aggressive play, throwing blocks and knocking down the psychologist’s structures. However, the termination process of receiving the certificate of completion, saying good bye to the puppets, and using a high rate of positive reinforcement successfully moved John towards a positive “good bye.” Finally, allowing John to take his preferred puppet, James, to the threshold of his classroom helped him successfully transition from the session back to class.

**Externalizing Behavior**

John’s classroom behaviors were measured prior to starting the cognitive behavioral play intervention to provide a baseline rating of externalizing behaviors. John’s classroom behaviors were measured again immediately following the completion of the eight-week
cognitive behavioral play intervention. Finally, John’s teacher rated his classroom behaviors after a four-week withdrawal period in order to measure any lasting effects on his behavior. Table 1 illustrates teacher ratings of John’s externalizing behavior across the three phases.

Table 1.

<table>
<thead>
<tr>
<th>Subscale/Composite</th>
<th>Baseline</th>
<th>8-week Intervention</th>
<th>4-week Withdrawal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyperactivity</td>
<td>66</td>
<td>62</td>
<td>69†</td>
</tr>
<tr>
<td>Aggression</td>
<td>56</td>
<td>52</td>
<td>68†§</td>
</tr>
<tr>
<td><strong>Externalizing Problems</strong></td>
<td><strong>61</strong></td>
<td><strong>57</strong></td>
<td><strong>69†§</strong></td>
</tr>
</tbody>
</table>

*Note. * Practically important difference (i.e., a difference of > 5 T-Score points) between Baseline and Intervention phases; † Practically important difference between Intervention and Withdrawal phases; § Practically important difference between Baseline and Withdrawal phases*

In Table 1, teacher ratings are presented as norm-referenced T-scores. T-scores have a mean of 50 and a standard deviation of 10. Scores above 70 on the problem behavior scales are considered to be very elevated or “clinically significant.” Scores between 60 and 69 are considered to be slightly elevated or “at-risk.” John’s teacher’s scores indicated concerns related to hyperactivity and overall externalizing behaviors prior to starting the eight-week intervention. Teacher ratings for the aggression subscale were within the average range.

Teacher ratings at the end of the eight-week intervention resulted in no practically important changes in behavior (i.e., a reduction in T-score of at least 5 points). However, teacher ratings for the Externalizing Problems composite changed from the at-risk to average
range, a decrease of four points. John’s classroom teacher’s ratings for the Hyperactivity and Aggression subscales also resulted in a decrease of four points. John’s teacher’s ratings indicated only a negligible change in John’s classroom externalizing behaviors.

At the end of the four-week withdrawal phase, all areas were rated as within the at-risk range. There was a practically important increase in reported externalizing behaviors for both subscales and the Externalizing Problems composite. In addition, teacher ratings at the end of the four-week withdrawal stage resulted in a practically important increase when compared to teacher baseline ratings for the Aggression subscale and the Externalizing Problems composite. Teacher ratings of externalizing behaviors at the end of the withdrawal period indicated no long-term improvement in behavior while in two instances teacher ratings indicated a practically important increase in externalizing behaviors.

**Participant 2: Ashley**

The classroom teacher nominated Ashley for this study due to concerns related to aggression and emotional regulation. After consent was obtained from Ashley’s parent/guardian and teacher, her behavior was rated via the BASC-2 TRS-P. Ashley’s kindergarten teacher provided ratings that met inclusion criteria guidelines, providing scores in the at-risk range (i.e., T-score of 60-69) for the Hyperactivity and Aggression subscales, as well as the Externalizing Composite. The BASC-2 validity indices were also considered. The validity indices of F-index, Response Pattern, and Consistency were all deemed acceptable. For the later two ratings of classroom behavior, all validity indices were within the acceptable ranges as well.
Timeline of Sessions: Ashley

11/6/14 at 1:45 pm: Ashley appeared comfortable from the start of the session. She skipped down the hallway and did not appear nervous. After providing Ashley with the introductory information, Ashley assented to working with the school psychologist. The goal of the first session was to build rapport. While playing with molding clay, Ashley talked easily with the school psychologist. She shared information about her favorite color, hobbies, pets, and information about her family. Ashley reported that she had two cats. One cat was described as wild, whereas the second was described as sweet. Based on Ashley’s description of the cats, it appeared that both cats were not family pets, rather serving as imaginary pets for Ashley. Ashley talked about herself, noting, “Sometimes I get in trouble sometimes,” but that she, “Says sorry.” Ashley wanted the school psychologist’s attention, often asking, “Guess what I am making!”

The period of sensory play was successful, so the session moved to playing a board game. Ashley displayed some competitive behaviors and wanted to win every game. However, she did not become upset when the school psychologist won. She also provided the school psychologist with reassurance after making a mistake, saying, “It is ok if you miss.” After playing four rounds of the board game, the school psychologist introduced the puppets to Ashley.

Ashley was immediately interested in the puppets and listened to each puppet’s introduction. Ashley chose to play with Irene first, then Megan and Kelsey. Ashley displayed strong pretend play skills. She first played with the puppets, pretending that the puppets were coloring together. After this play scenario was finished, Ashley kept Megan to play with, and the school psychologist picked Eli. To assess how Ashley might respond to a problem
solving play scenario, Eli started to be very loud and disruptive to Megan’s play. Ashley required some help with problem solving, but practiced asking Eli to “Please stop,” and, “Please be quiet.” This play scene finished the session for Ashley.

11/12/14 at 1:45 pm: To start the second session, Ashley was reminded of the purpose of the session, the eight-week timeline, and was reintroduced to the puppets. Ashley appeared less interested in the puppets this time; instead she wanted to interact with the animal and people figurines. Ashley also showed enthusiasm for drawing. With the crayons, she drew a flower, a rainbow, the sun, and a heart. She also created a box, which she filled with lots of colors. There was little discussion about her drawing, as this was primarily a rapport building activity.

When Ashley was introduced to the emotional thermometer, she quickly understood the concept of high emotion and calm emotion, but did not necessarily know how to use it. However, when presented with a play scenario where her puppet became angry, Ashley was able to apply the puppet’s emotions to the emotional thermometer. She required scaffolding to think of a strategy to help the student calm down, but otherwise was receptive to role-playing through the scenario and helping the puppet. At the end of the session, Ashley talked a little more about her imaginary cats.

11/20/14 at 1:48 pm: Ashley started the session playing with blocks. Ashley wanted to make a castle. She narrated her play, talking about a king and queen who live in the castle. She noted that the king would often get mad at the queen because she won’t clean her room. Ashley then provided the queen’s perspective, saying that the queen messes up her room because she is trying to find something. The school psychologist asked if Ashley had ever experienced a messy room like the queen, but she said that she had not. Ashley then asked to
color for a short period. Ashley drew a rainbow, flowers, and a sun that were similar to her drawing from the previous session. She talked about her imaginary pets, saying that one of the pets was acting badly, hissing at the other. The school psychologist asked Ashley to place hissing on the emotional thermometer. She correctly identified the top of the thermometer, saying that hissing means, “Mad, stop it.”

The session then transitioned into the role-playing activity. The role-play included the animal and human figurines. In the scenario, the duck was pushed by another puppet. Ashley identified that the duck would feel “really angry.” When asked to problem solve, she told the puppet to say sorry to the duck. The school psychologist modeled taking a break and calming the duck down. This was tied into the emotion thermometer. The school psychologist modeled taking six breaths while moving her finger down one step of the thermometer until she reached the bottom of the thermometer. After this was modeled, Ashley successfully helped her puppet breathe from “black to green.” After completing the breaths, Ashley said proudly, “Now he is green!”

Ashley almost immediately picked up new puppets and recreated the play situation. The elephant puppet hit another puppet. Ashley narrated the play. The teacher came over to the group of students, saying, “What is going on? Why are you fighting?” The elephant then said, “Because he said, ‘your picture is not nice.’” Ashley told the elephant that he had to “breathe from black.” Ashley problem solved for the elephant with little support from the school psychologist.

11/25/14 at 1:15 pm: Ashley was presented with information about the progression of the sessions. She was reminded that there were four sessions left in the eight-week intervention. She and school psychologist counted to four and then counted to four again to
recognize the session that were done and the sessions that had not happened yet. The session’s first activity was to introduce positive self-statements. This was introduced while Ashley played with molding clay. While the school psychologist modeled positive self-statements but commenting on Ashley’s strengths, Ashley did not display much response to the school psychologist and this half of the session was relatively unsuccessful. However, while Ashley played, she talked about her behavior during the day in her classroom. She noted that her teacher had made her mad, saying, “Teacher made me black.” The school psychologist asked how Ashley responded to feeling black. Ashley was not able to give a clear answer. The school psychologist asked if Ashley had breathed from black to green, and she said no. The school psychologist and Ashley practiced the breathing skill twice before moving on to the puppet play activity. In this activity Ashley took on the teacher puppet, and the school psychologist played the student. The situation included a new student. Ashley identified that the new student was sad because the other students did not want to play with him. Ashley, acting as the teacher, asked the students what was wrong and then told the students to apologize to Cody, the new student. The teacher then sent all the students to play cooperatively. Ashley and the school psychologist played through the rest of the role-play until the end of the session.

12/5/14 at 10:30 am: Ashley came to this session in high spirits; she had had a good day behaviorally and was proud of earning two rewards from her teacher. Ashley chose to color during the free play activity. Ashley drew a rose with purple thorns. She described them as, “jaggers.” Ashley indicated that her uncle had flowers with jaggers and they had hurt her before. Ashley also drew a rainbow, a sun, three kittens, and a building as part of her drawing. In the center of the picture was a girl named Elsa. As Ashley explained the picture,
she added a figure with glasses, depicting the school psychologist near the building and the kittens. During the coloring activity, the school psychologist attempted to reintroduce self-statements to Ashley. Similar to the previous session, Ashley appeared uninterested in the self-statements.

The school psychologist presented a scenario to add onto previous scenarios. The scenario included two students using the cat and polar bear puppets. The cat hit the polar bear. Ashley suggested that the cat should apologize to the polar bear. The school psychologist asked, “What could cat do before hitting polar bear?” Ashley was unable to provide an alternative behavior that was not a reaction to a bad choice, like saying sorry. The school psychologist helped Ashley by suggesting that cat could stop and breathe before hitting polar bear. Ashley role-played the cat breathing on the emotional thermometer and calming down with the school psychologist.

12/12/14 at 8:15 am: This session included the coping skills role-play assessment for Ashley. Ashley was presented with four scenarios: in the classroom and frustrated by work; at recess and a peer won’t share; in line and a student pushes you; and playing in the classroom when you smash a student’s blocks. For each scenario Ashley was presented with the setting and using the child hand puppets, she was asked to role-play through the scene. The goal was for Ashley to problem solve for each student, independently utilizing coping skills like stopping to identify his emotion and make a better choice, employing deep breathing to calm down, talking to an adult, and saying, “I am sorry.”

Ashley had difficulty working through the scenarios independently, but was successful with prompting. Ashley’s primary strategy to manage the scenario was to apologize. The school psychologist was required to suggest the coping skills that Ashley had
been exposed to. Once mentioned, Ashley was able to apply the skill during the resulting role-play.

After the assessment was complete, Ashley and the school psychologist did a brief free play until the end of the session. Ashley wanted to color. She drew a group of four figures. Each had brightly colored fingernails. She identified them as herself, mother, father, and the school psychologist. She explained that everyone was getting his or her nails painted. Ashley was unable to finish her picture, as it was time to leave.

12/19/14 at 2:15 pm: Ashley and the school psychologist played with the foam blocks while the school psychologist asked Ashley briefly about her day. Ashley disclosed that she had a bad day, and that her principal was going to call her mother. When asked about what happened, Ashley reported that she had hit another student. The school psychologist asked her about how she felt when she hit the student. Ashley replied that she felt “black” and that she missed her mother. Ashley and the school psychologist talked about using her breathing to calm down next time.

Then the school psychologist transitioned the conversation to discuss the termination session next week. The psychologist presented possible feelings about termination and highlighted the positives of termination. She also provided praise for the student’s hard work and learning. When asked about how she might feel, Ashley said, “I’ll probably miss you.” The school psychologist validated and reassured Ashley that she would see the school psychologist in the hall and around school. The school psychologist then said she was “proud of the good choices you will make and all that you have learned.”

The school psychologist then asked Ashley to role-play how she might behave in class after the termination session. Ashley indicated that she would, “Be good and listen.”
The school psychologist asked her to show what this would look like, but Ashley struggled to role-play how she might act in the classroom. Only with scaffolding from the school psychologist was Ashley able to list some of the coping skills she had learned.

12/22/14 at 10:00 am: In the termination session the school psychologist went over feelings and what termination meant with Ashley. She appeared comfortable with the concept and wanted to focus on playing. When asked what she had learned, Ashley was not sure what to say. Ashley talked mostly about interacting with the school psychologist and the toys. After her response, the school psychologist talked about the other skills that Ashley had learned. Ashley appeared to understand each skill, but again was unable to recall them without prompting. Ashley and the school psychologist talked while playing with the figurines. Ashley wanted to play a tag-style game where the school psychologist’s puppets went in search of Ashley’s puppets. Each time the school psychologist’s puppets came near, Ashley’s puppets would pounce on them. After a few rounds, Ashley directed, “Now you scare me!” This brief free play continued until the school psychologist transitioned to the hand puppets. Ashley played a similar scenario with the hand puppets. Megan tried to scare Becky, played by the school psychologist. Becky got too scared and went to play with another puppet. Ashley did not appear interested in playing with the puppet Becky and started to play with the puppet, Megan, by herself.

The school psychologist and Ashley also colored before ending the session. Ashley drew a picture of herself, the school psychologist, a cat and two flowers. The picture also included the sun, two clouds and a rainbow. Ashley also spent time discussing the school psychologist’s picture, which mirrored Ashley’s content. At the end of the session, the school psychologist presented Ashley with the certificate of completion, providing positive
reinforcement related to Ashley’s hard work and learning. The school psychologist expressed that she would miss Ashley, as would the puppets, but they would be happy knowing that she was making good choices in the classroom. Ashley said goodbye to each puppet cheerfully and left the room happily. Her affect was still positive when the school psychologist said goodbye in front of her classroom door. Ashley did not take a puppet with her in the hallway.

**Response to CBPT Intervention**

Session audio recordings for Ashley were reviewed during and after data collection. The recordings were utilized to take detailed case notes and provide qualitative information related to building rapport, students’ response to the play techniques and activities, preferred toys or materials, and other observed factors that impacted session success.

**Building rapport.** Ashley was introduced to the school psychologist by her teacher. She came willingly with the school psychologist and skipped down the hallway chatting with animation about her favorite colors. During the first session, a variety of toys and games were introduced to evaluate preferred activities. Ashley immediately showed an interest in the molding clay and the crayons. She reported that she liked to draw hearts and rainbows. Ashley displayed strong imaginative play skills during the first session. She was immediately drawn to the human hand puppets. She initiated a play session between the puppets, Megan and Eli. When the school psychologist asked her to problem solve for the puppets, she was able to help Megan practice saying, “please stop,” when Eli was not being nice. Ashley was excited by the competitive game, a tic-tac-toe style board game, and was highly motivated to win. She became upset when she lost one of the later rounds to the school psychologist.
Ashley showed positive affect toward the school psychologist, offering to sing her the ABCs and show a cheer from cheerleading. At the end of session number one, Ashley hugged the school psychologist before entering her classroom. Ashley also benefited from having a short free play session prior to working on more structured play tasks. It served as a helpful transition between school and play, and Ashley often disclosed information about her day during this period (i.e., her classroom behavior, upsetting or frustrating situations, or instances of getting in trouble).

**Intervention challenges.** Initially, Ashley would withdraw when talking about upsetting topics like her feelings. She would change the topic midsentence and ignore further questions. However, Ashley began to be more open about her emotions as she became comfortable with role-playing scenarios and using emotional thermometer language to describe situations. Ashley also had strong preferences for toys and particular puppets. It was sometimes difficult to change the toys used in the session. Preferred puppets like Irene and Megan were brought to each session, while other puppets changed from week to week.

While Ashley was successful with many of the role-play activities that were presented, Ashley was less engaged during the activities related to self-statements. She listened to the school psychologist model positive self-statements, but she did not apply them successfully on her own. Ashley also had trouble summarizing what skills were learned from week to week. While she was able to use them with a high degree of independence in the session, at the start of the next session she had trouble identifying the coping skills she had learned.

**Intervention successes.** Ashley enjoyed a number of the psychologist’s toys, but appeared to enjoy coloring most. Favorite toys included the hand puppets, particularly Megan.
and Irene. Ashley also enjoyed playing with the finger puppets because there was a puppet that she labeled “cat” and always wanted to play with. While Ashley enjoyed the block and molding clay activities, she rarely asked for the sensory or competitive games during the sessions.

There was also a successful response to a number of the structured play activities that were presented. First, Ashley had a strong reaction to a number of play scenarios that required her to problem solve for a puppet. This was evidenced by Ashley repeating and expanding upon the play scenarios after the structured problem solving activity was completed. Ashley would role-play a student getting in trouble for pushing, fighting, or a student having no friends with whom to play. While the scenario related to physical aggression was introduced by the school psychologist in session three, Ashley repeated the play scenario during week five without prompting.

Ashley also had substantial success using the emotional thermometer presented in session two. Ashley quickly picked up the concept of labeling her emotions from calm=green to very upset=black. Ashley was able to label her own emotions using the thermometer. In one instance, during session four, she described getting in trouble in the morning as, “teacher made me black.” Ashley was also able to utilize the thermometer to calm down. She and the school psychologist practiced taking six deep breaths, breathing from “black to green.” She referred to the emotion thermometer frequently in later sessions.

The interactions related to termination were also successful. Ashley talked about termination when it was introduced in session seven, saying, “I’ll probably miss you.” A productive conversation about termination, with a high rate of positive feedback, was conducted in session seven. In session eight, Ashley appeared ready for termination. She
enjoyed receiving the certificate of completion and saying good-bye to the puppets, and required no extra steps to successfully transition from the session back to class.

**Externalizing Behavior**

Ashley’s classroom teacher provided ratings of hyperactivity, aggression, and overall externalizing behavior for the Baseline, Intervention, and Withdrawal phases. The results of the three sets of ratings are summarized in Table 2.

Table 2

*T-scores from the BASC-2 TRS-P for Externalizing Behavior Indices: Ashley*

<table>
<thead>
<tr>
<th>Subscale/Composite</th>
<th>Baseline</th>
<th>8-week Intervention</th>
<th>4-week Withdrawal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyperactivity</td>
<td>62</td>
<td>62</td>
<td>58</td>
</tr>
<tr>
<td>Aggression</td>
<td>66</td>
<td>52*</td>
<td>68†</td>
</tr>
<tr>
<td>Externalizing Problems</td>
<td>65</td>
<td>57*</td>
<td>64†</td>
</tr>
</tbody>
</table>

*Note. * Practically important difference (i.e., a difference of > 5 T-Score points) between Baseline and Intervention phases; † Practically important difference between Intervention and Withdrawal phases; § Practically important difference between Baseline and Withdrawal phases

Ashley’s teacher’s scores indicated concerns related to overall externalizing behaviors prior to starting the eight-week intervention. Teacher ratings were rated within the at-risk range for all three indices. Teacher ratings suggested that all areas of externalizing behavior were a concern at school.

Teacher ratings at the end of the eight-week intervention resulted in two practically important changes in behavior. Ratings for the Aggression subscale and Externalizing Problems composite changed from the at-risk to average range, decreasing 14 and 8 points
respectively. Ratings for the Hyperactivity subscale were the same between baseline and intervention phases. Teacher ratings indicated a perceptible change in Ashley’s aggressive behaviors and externalizing behaviors.

At the end of the four-week withdrawal phase, the Aggression subscale and Externalizing Problems composite were rated within the at-risk range. Teacher ratings increased by 16 and 7 points respectively, both practically important differences. The Hyperactivity scale decreased four points, moving from the at-risk to the average range. There was no practically important change between baseline ratings and ratings after the four-week withdrawal phase. While ratings after the intervention phase indicated a practically important reduction of aggressive and overall externalizing behaviors, ratings at the end of the withdrawal period indicated no long-term improvement in externalizing behaviors.
Chapter 5

Discussion of Findings

The purpose of this study was to investigate the use of a cognitive behavioral play therapy intervention for kindergarten students with elevated levels of externalizing behavior. Utilizing a single subject study design, this study attempted to measure and describe the possible benefits of utilizing CBPT as a school-based, short-term intervention. Detailed descriptions of the relevant literature, study methods and intervention procedures, study findings, and qualitative intervention information have been presented in the preceding chapters.

Review of Study Findings

John’s classroom behaviors were measured using the BASC-2 TRS-P, a teacher rating scale of classroom behaviors. John’s teacher rated his behavior at three times of measurement during data collection, once prior to starting the cognitive behavioral play intervention, again immediately following the intervention, and last after a withdrawal period. Teacher ratings related to externalizing behavior were the focus of the study, specifically the subscales of Hyperactivity and Aggression, as well as the Externalizing Problems composite scale. John’s teacher’s ratings are summarized in Table 1. While teacher ratings did drop from the At-Risk to Average range for the Externalizing Problems composite after the eight-week intervention, ratings did not indicate a practically important reduction of externalizing behaviors after the cognitive behavioral play intervention. Furthermore, ratings of externalizing behaviors increased above baseline ratings after the four-week withdrawal phase. Teacher ratings did not indicate a noticeable reduction in student externalizing behaviors.
Using the same procedures and study design, Ashley’s kindergarten teacher also provided ratings for classroom behavior via the BASC-2 TRS-P. After the eight-week intervention phase, Ashley’s teacher’s ratings changed from the At-Risk to Average range for the Aggression subscale and Externalizing Problems composite. In addition, these scores were practically different (i.e., a T-score decrease of at least 5 points) from baseline ratings. These ratings were suggestive of a noticeable improvement in Ashley’s aggressive and overall externalizing behaviors. Similar to John, teacher ratings for the withdrawal phase resulted in a practically important increase in aggressive and overall externalizing problems. Ashley’s behaviors appeared to revert back to baseline levels once the intervention was removed. Teacher ratings suggested an improvement of externalizing behaviors after the cognitive behavioral play intervention; however, ratings did not indicate a noticeable long-term improvement in student externalizing behaviors.

While John and Ashley presented with different behavioral concerns, there were some similarities in their response to the cognitive behavioral play intervention materials. Both students responded positively to the activities and toys utilized during sessions. Both students enjoyed using the puppets, particularly the animal puppets. John and Ashley each developed a preferred puppet with which they liked to play. For John, the preferred puppet was James, while Ashley preferred to play with Megan. Both students also enjoyed the non-structured play opportunities, like coloring and playing with blocks. A short free-play prior to starting the session helped both students transition from classroom academics to the play intervention activities.

Ashley and John also responded in similar manner to activities that were less successful. Sessions related to self-statements were unsuccessful with both John and Ashley.
It was clear that both students neither understand self-statements, nor how to apply them. It is likely the presented activities were unclear or uninteresting. While the self-statement activities were designed to be personalized to the student, it is likely that a more structured role-play activity might help students understand the overall concept of self-statements before trying to tailor self-statements to the individual student. Ashley and John also displayed difficulty remembering learned coping skills without the psychologist to provide support. It was apparent both students had not mastered a “menu” of coping skills to choose from by the eighth session. More activities to promote practice and independent use of skills would likely help students develop a working list of coping skills available to them in the classroom.

There were also areas of difference for Ashley and John. The students differed in the amount of scaffolding and support required during structured problem solving or coping skill activities. Ashley engaged in more elaborate and independent pretend play, while John typically repeated the pretend play that was modeled by the school psychologist. It was not until later sessions that John began to build on presented scenarios with his own details. Prior to this, more structured activities like drawing the scenario instead of using a role-play approach were helpful for John. Ashley did not require this level of play scaffolding. Ashley was able to apply learned concepts and skills at a faster pace than John. For instance, Ashley quickly understood and was able to apply the emotion thermometer to her role-play scenarios, whereas John did not respond to the emotion thermometer. For John, using the emotion words, like “sad” and “mad,” were a more successful strategy for tying physical reactivity to frustrating scenarios.
Overall, the results from teacher ratings and clinical notes suggest that the cognitive behavioral play intervention did not promote long-term improvement in externalizing behaviors, but they did support some short-term improvements in externalizing behavior, particularly for Ashley. While both Ashley and John appeared to find the activities and materials interesting, the intervention did not appear to have an observable impact on externalizing behaviors in the classroom. It is unclear exactly which parts of the intervention were not efficacious; as an exploratory study, there were limits to the study design that merit discussion.

**Study Limitations and Future Research**

Sample size was a clear limitation to the study. While the desired sample size for the study was four students, only two students from the school district had parents who consented to the study and met eligibility criteria. A small sample size and the use of a single subject study design were selected for the present study. These methods were similar to the foundational research providing evidence for CBPT, which were analyzed in a case study format (Knell 1993; Knell & Moore, 1990). However, a small sample size limits the conclusions that can be made regarding the efficacy of the cognitive behavioral play intervention. Future attempts to research the intervention would benefit from a larger sample size.

Using solely teacher ratings was also a limitation to the study. While ratings of classroom behavior are of primary importance for a school-based behavior intervention, measuring externalizing behavior at home would provide helpful information about possible effects on externalizing behavior outside of the classroom. If utilized in a non-research setting, parent ratings would also serve as important comparisons between home and school
that might help teachers and parents interact productively over concerns about student behavior.

A second limitation to using rating scales is the possibility of teacher biases. As Ashley and John’s teacher was aware of the purpose of the intervention, it is possible the knowledge may have impacted her ratings. Teacher expectation effects may have impacted the perceived improvement in externalizing behaviors for Ashley. An unexpected finding was the increase of teacher ratings of externalizing behaviors on the BASC-2 TRS-P after the four-week withdrawal phase. Teacher biases may also help explain these unanticipated results. Teacher expectations may have interacted with teacher ratings at the end of the withdrawal phase. In the case of John, his teacher rated his externalizing behaviors as worse than baseline. This may have been due to teacher frustration, given that John’s behavior had not improved to a practically important level despite intervention. A set of direct observations throughout the three phases would be helpful to provide another measure of classroom behavior. These observations would have to be conducted by graduate students or school counselors who are unfamiliar to the student in order to maximize observation objectivity. In association, observation through video taping of intervention sessions would also facilitate session documentation and allow for more detailed session analysis of students’ play.

The study utilized the school psychologist as the primary and only practitioner for the intervention. This may have limited the generalization of skills and long-term effects of the intervention. Students spent only 30 minutes per week with the school psychologist; the time out of the play sessions was not utilized in support of the intervention. Future research should focus on methods to increase student generalization and independence of learned skills.
Research suggests that parent training and involvement in play therapy can have a significant effect on treatment efficacy (LeBlanc & Ritchie, 1999; 2001). Collaborating with teachers and parents to participate, apply, and support the learned coping skills from the intervention may enhance student coping skill use and the overall efficacy of the cognitive behavioral play intervention.

**Intervention Viability**

This study attempted to evaluate if using a CBPT intervention in a school-based setting was a viable option for practitioners. In addition to the limitations of the research design, limitations specific to the school setting also had an impact on the intervention. Teacher lesson schedule, snow and weather cancellations, and student absences made finding a consistent time for the intervention challenging. For the intervention to be viable in a school setting, scheduling sessions must be made a priority by the school psychologist and the collaborating teacher.

Furthermore, the CBPT intervention requires at minimum a selection of puppets, figurines, sensory play materials, and art tools. Although, this study followed Cattanach’s (2009) suggestions for a play tool kit, during the sessions there were play periods when other toys would have facilitated John and Ashley’s play. For instance, Ashley mentioned a king and queen while building a castle of blocks. Having a fantasy set of figurines might have helped her continue with her play. In another instance, John wanted to pretend one of his structures was a school; toys related to school furniture would have created a rich play scene for John. In order to create this kind of play experience, school psychologist practitioners would have to purchase such materials in anticipation of their CBPT intervention. This might prove too costly for school psychologists who may expect to work with only one or two such
young students per year. Working in collaboration with school counselors to share such materials might be a successful method to accumulate all needed play materials.

Taking into consideration these limitations, as well as the suggestions for future research, the CBPT intervention is a viable option for school psychologists, working collaboratively with parents and teachers to prioritize sessions and implement the intervention outside of the intervention activities. In addition, school psychologists should work to build an appropriately varied toy collection to allow for complex play during sessions. This can be attained through careful purchasing and sharing with other school mental health professionals. Working in collaboration with all school stakeholders, the intervention would be a viable option for future school-based research and practice.

**Conclusions**

Children who display high rates of externalizing behaviors in early elementary years are at-risk for academic and social deficits that may last into adulthood without intervention. Play-based interventions often include practitioners outside of the school setting. School-based play interventions have the potential to offer intervention to students who do not have access to outside treatment. This study attempted to evaluate the possible benefits of implementing an eight-week, cognitive behavioral play intervention for kindergarten students displaying high rates of externalizing behavior in the classroom. The intervention was conducted one-on-one with two kindergarten students, utilizing a single subject design. Externalizing behaviors were measured through classroom teacher ratings of student behavior before, during, and four weeks after the intervention.

Results from teacher ratings suggested that both students made short-term improvements, with one student evidencing a practically important decrease in both
aggressive and overall externalizing behaviors. However, ratings from after the four-week withdrawal phase indicated that behavior improvements were not lasting. Teacher ratings of externalizing behaviors for both students increased to a level commensurate with baseline phase ratings. The study highlighted both the possible benefits and the intervention challenges of implementing a cognitive behavioral play intervention for externalizing behaviors in a school-based setting. Due to discussed study limitations, future research should be conducted. Future research should focus on methods to increase the efficacy of the intervention and support student generalization and independence of learned skills. Utilizing parents, teachers and other educators to participate and employ the learned coping skills within the intervention may improve long-term effects of the cognitive behavioral play intervention.
References


problems, maternal control, and family stress. *Development and Psychopathology, 8*, 701. doi: 10.1017/S0954579400007379


behavioral therapy: Evidence-based and other effective treatments and techniques.


Appendix

Letter of IRB Approval

**Date:** October 15, 2014  
**From:** Jodi Mathieu, IRB Analyst

<table>
<thead>
<tr>
<th>Type of Submission:</th>
<th>Initial Study</th>
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<tbody>
<tr>
<td>Title of Study:</td>
<td>Pilot Study Evaluating the Use of Cognitive Behavioral Play Based Intervention for Preschoolers with Externalizing Behaviors</td>
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<tr>
<td>Principal Investigator:</td>
<td>Adah Murray</td>
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<tr>
<td>Study ID:</td>
<td>STUDY00000618</td>
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<tr>
<td>Submission ID:</td>
<td>STUDY00000618</td>
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<tr>
<td>Funding:</td>
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</tr>
<tr>
<td>IND, IDE, or HDE:</td>
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| Documents Approved: | • Letter to Parents (2), Category: Recruitment Materials  
  • Teacher Recruitment Script (1), Category: Recruitment Materials  
  • REVISEDAdahMurray-HRP-503f-Protocol_for_Human_Subject_Research.pdf (4), Category: IRB Protocol  
  • BASC-2 Pre-school Form for Teachers (1), Category: Data Collection Instrument  
  • Letter to Teachers (2), Category: Recruitment Materials  
  • Teacher Consent Form (3), Category: Consent Form  
  • LETTER TO PARENTS - NOTICE FOR WITHDRAWAL OF SUBJECT.doc (2), Category: Other  
  • DEBRIEFING LETTER TO PARENTS.doc (2), Category: Other  
  • Parent Consent Form (2), Category: Consent Form |
| Review Level:       | Expedited |

On 10/15/2014, the IRB approved the above-referenced Initial Study. This approval is effective through 10/14/2015 inclusive.

On 10/17/2014 the IRB approved MOD00001768. This modification changed all references to a preschool participant sample to a kindergarten participant sample. The title of the study changed to “Pilot Study Evaluating the Use of Cognitive Behavioral Play Based Intervention for Students with Externalizing Behaviors.”

On 3/3/2015 the IRB approved MOD00002621. This modification added a letter notifying parents of the end of data collection.
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