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# Parent Management Training in Primary Care: Feasibility, Acceptability, and Preliminary Results

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Parent Management Training in Primary Care:  
Feasibility, Acceptability, and Preliminary Results

Parent Management Training in Primary Care:  
Feasibility, Acceptability, and Preliminary Results

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Arts in Psychology

by

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University of the Incarnate Word  
Bachelor of Arts in Psychology, 2009

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This thesis is approved for recommendation to the Graduate Council.

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## ABSTRACT

This study explores the notion that brief interventions delivered in primary care can lead to positive outcomes in children with externalizing behavior problems. Study aims explored behavioral problem prevalence, whether caregivers found it acceptable to receive brief behavioral interventions following routine pediatric visits for identified behavioral problems, and whether it was feasible to deliver same-day services in a primary care setting. Additionally, preliminary data were provided regarding a small *N* randomized control trial conducted in a primary care setting. The trial utilized either a one-session intervention comprised of evidence-based Parent Management Training components or a supportive therapy intervention for children with externalizing behavioral problems. Participants were 100 caregivers and their children ( $M_{age} = 5.32$  years, 54% female, 54% White) with disruptive behavior problems. Results revealed that more than half of caregivers (53%) endorsed one or more observed behavioral problems with their child. When offered help for identified problems, caregivers largely refused help and when they did accept help they were largely unable to stay for a same-day behavioral health visit. Preliminary small *N* trial data were provided by caregivers of 6 children ( $M_{age} = 5.50$  years, 83% male, 67% White). Results indicated positive behavioral improvements in both children and caregivers, although caregiver knowledge regarding specific PMT components did not improve.

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## INTRODUCTION

Parent Management Training (PMT) has been widely used as an effective intervention strategy for children with a variety of externalizing behavior problems (Barkley & Benton, 1998; Eyberg, Nelson, & Boggs, 2008; Forgatch, Bullock, & Patterson, 2004; Kazdin, 1995, 2005; McMahon, & Forehand, 2003). Targeted areas of difficulties range from subclinical or circumscribed problems, such as temper tantrums (Hautmann et al., 2009), to clinical disorders such as Oppositional Defiant Disorder (Costin & Chambers, 2007) and Conduct Disorder (Brestan & Eyberg, 1998; van der Wiel, Matthys, Cohen-Kettenis, & van Engeland, 2002). In pediatric settings, researchers have found that up to 12-16% of patients present with undetected emotional or externalizing behavior concerns (e.g., Polaha, Dalton, & Allen, 2011). Integrating mental health services into primary care can help provide these children with needed services. The few studies that evaluate PMT in integrated medical settings provide preliminary support for its efficacy (Axelrad, Pendley, Miller, & Tynan, 2008; Gomez et al., 2014), but lacking is information regarding its acceptability and feasibility. The present study sought to fill this gap. Additionally, the present study aims to provide preliminary results of a small *N* randomized control trial examining the effectiveness of a brief, one-session intervention using evidence-based components of PMT delivered in a primary care setting for caregivers of children with behavioral problems.

### Externalizing Problems in Children

**Conduct and Oppositional Defiant Disorders.** The two primary childhood disruptive behavior disorders listed in the *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (DSM-V; American Psychiatric Association [APA], 2013) are Conduct Disorder (CD) and Oppositional Defiant Disorder (ODD). CD is characterized by an enduring pattern of



behaviors that violate rules and display a general disregard for others. Individuals with CD often display aggressive tendencies and are viewed as problem children by adult authority figures.

There are three CD subtypes, which specify either a childhood onset that is before the age of 10 years, an adolescent onset that presents after the age of 10 years, or an unspecified type when onset is unknown. Two specifiers have been included in the most recent iteration of the DSM in order to highlight “limited prosocial emotions” and current symptom severity (APA, 2013, p. 470). A limited prosocial emotions specifier is warranted when at least two of the following are present: a lack of remorse or guilt, callousness, lack of concern about performance, and shallow or deficient affect. Severity can be categorized as either mild, moderate, or severe.

ODD is characterized by a consistent pattern of behaviors, occurring for at least 6 months, which are a combination of “angry/irritable mood, argumentative/defiant behavior, or vindictiveness” (APA, 2013, p. 462). Children diagnosed with ODD are typically described as annoying and stubborn. Diagnostic specifiers indicate the current severity of symptoms as either mild, moderate, or severe depending on how many settings the behaviors are displayed. ODD is highly comorbid with CD and attention-deficit/ hyperactivity disorder.

ODD is viewed as a less severe childhood disorder than CD. For instance, physical aggression towards humans or animals, fire setting, and theft are behaviors characteristic of CD but not of ODD. Behaviors typically exhibited in children diagnosed with ODD are also usually evident in children with CD; however, major rule violations are not indicated (Kazdin, 1995). Comparable behaviors among the disorders include defiance of rules, argumentativeness, and non-compliance to requests and demands given by adults. In prior iterations of the DSM, when criteria were fully met for both disorders, only a diagnosis of CD was granted because it is more severe in nature (APA, 2000). However with recent updates to the DSM, both diagnoses can now

be given in tandem (APA, 2013). The prevalence rates of CD are estimated to be between 1 and 10 percent, depending on the sampled population (APA, 2013; Costello, Compton, Keeler, & Angold, 2003; Maughan, Rowe, Messer, Goodman, & Meltzer, 2004). Rates of ODD are slightly higher, with estimates between 1 and 16 percent (APA, 2013; Nock, Kazdin, Hiripi, & Kessler, 2007; Turgay, 2009). Both CD and ODD are diagnosed up to three times more in boys than in girls (Rowe, Maughan, Pickles, Costello, & Angold, 2002; Webster-Stratton, 1996; Zoccolillo, 1993). Precise explanations for gender inequalities are unknown.

**Attention Deficit/Hyperactivity Disorder.** Attention deficit/hyperactivity disorder (ADHD) is characterized by a cluster of symptoms relating to inattention (i.e., easily distracted, loses things, unable to sustain attention), impulsivity (i.e., interrupts, difficulty waiting to take turns), and hyperactivity (i.e., fidgeting, excessive talking) that have been present for at least six months and cause disturbance in multiple settings (APA, 2013). ADHD is diagnosed by type: predominantly inattentive, predominantly hyperactive/impulsive, or combined. Diagnostic specifiers are available to denote partial remission (if criteria were fully met in the past and are not currently met) and current severity (mild, moderate, and severe). In addition to CD and ODD, ADHD can also cause children to display externalizing behavioral concerns. The prevalence rates of ADHD have been estimated to be between 3 and 12 percent in school-age children (American Academy of Pediatrics, 2000; APA, 2013). Researchers found that 4.2% of boys and 1.8% of girls aged 4 to 17 years display clinically significant levels of ADHD behaviors (Cuffe, Moore, & McKeown, 2005).

**Other Externalizing Behavior Problems.** Disruptive or externalizing behavioral problems are also common among children who do not meet criteria for a DSM-V diagnosable disorder. The symptoms of these children are often described as subclinical or subthreshold and

may include problematic behaviors such as temper tantrums or disobedience. It has been estimated that 20-23% of parents report significant behavioral concerns about their toddlers (O'Brien, 1996; Qi & Kaiser, 2003). Young children who have behavioral difficulties often display the same types of concerns in later childhood (Egeland, Kalkoske, Gottesman, & Erickson, 1990) and adulthood (Reef, Diamantopoulou, van Meurs, Verhulst, & van der Ende, 2010). Behavioral problems can contribute to difficulties in various aspects of living. Externalizing behavioral concerns have been associated with a plethora of negative outcomes including, but not limited to, increased rule breaking behaviors, aggression, low levels of peer social preference, and lower academic achievement (Bongers, Koot, van der Ende, & Verhulst, 2003; Bub, McCartney, & Willett, 2007; Leflot, van Lier, Verschueren, Onghena, & Colpin, 2011).

**Etiological Theory of Externalizing Disruptive Behaviors.** Numerous theories exist regarding the etiology of disruptive behaviors, including theories that focus on cognitions (Arsenio & Lemerise, 2004; Crick & Dodge, 1994) and others that reference peer groups (Dodge & Pettit, 2003). Most relevant to the current study, however, is coercive parenting theory.

Coercive parenting theory (Patterson, 1982) provides an explanation of the etiology and maintenance of clinical disorders such as ODD, CD, and subthreshold externalizing behavioral problems. This theory posits that parents inadvertently and often unconsciously guide children towards coercive behaviors via negative reinforcement and ineffective behavioral management (Cavell, 2000; Patterson, 1982). Coercive behaviors children may exhibit primarily include not complying with requests, ignoring parents, confronting behaviors, and tantrums (e.g., crying, yelling or whining). Coercive parenting theory posits that parents negatively reinforce their children's problematic behaviors by persistently giving in to the child's demands (Cavell, 2000;

Krol, Morton, De Bruyn, 2004). Specifically, coercion involves a set of interactions between the caregiver and the child in which actions and responses to actions are likely to increase the occurrence and severity of undesired aggressive behaviors (Kazdin, 2005), also called a coercive chain of behaviors. This chain of events might begin with a mild argument between caregiver and child that escalates to a shouting match, subsequently becoming a physically aggressive quarrel that might include biting or kicking, and ultimately ending with one of the two parties abruptly surrendering. As such, a maladaptive pattern of interaction is formed when intense interactions from one of the parties terminate the undesired behavior of the other. In this way, poor parenting practices often lead to learned oppositional behaviors that are unwittingly reinforced. Children have then learned and consequently develop patterns of interactive behaviors with their caregivers that are often infused with externalizing behaviors that are not well managed or controlled.

### **Parent Management Training as Treatment for Externalizing Behaviors**

Following from coercive parenting theory, a primary goal of parenting interventions for externalizing behavior problems should be to reduce or altogether eliminate coercive chains of behavior (Patterson, 1982). Behavioral approaches that employ reinforcement, punishment, extinction, and elimination techniques are best indicated to achieve this goal (Mpofu & Crystal, 2001). Child behavior change is achieved by teaching parents new ways to respond to their child's misbehavior(s) in such a way that shapes desirable alternatives (Kazdin, 2008).

Parent Management Training (PMT) refers to an array of treatment techniques that aim to train parents how to interact in new ways with their child(ren) (Kazdin, 2003; Martinez & Eddy, 2005). For example, children's prosocial behaviors are reinforced while coercive behaviors are mildly punished or ignored. PMT programs vary in precise content, but there are many shared

components among them. Traditional clinical implementation of PMT gingerly guides clients through a progression of phases and skill acquisition. Initially, treatment is conducted separately with the parents and the child typically does not attend sessions (Kazdin, 1987, 2003). Parents are tasked with observing, defining, and pinpointing problematic behaviors their child displays in the home. The clinician then teaches operant conditioning principles such as positive reinforcement, shaping, punishment, and contingency management (Kazdin, 2003). PMT focuses rather heavily on behavioral principles, versus specific techniques for circumscribed problems, in order to better prepare parents for an array of possible situations (Sexton, Pederson, & Schuster, 2008). Once techniques are understood and parents display proficiency in session, learned skills and techniques are then implemented and transferred to the home environment. Parents are the primary enforcers of this form of treatment; however, other adult figures such as daycare providers or elementary school teachers can be recruited as well (Kazdin, 1995). Successful implementation of PMT requires consistency and commitment by all parties involved.

### **Evidence of PMT Effectiveness**

Parent Management Training programs repeatedly produce promising results across a wide range of disruptive behaviors in children and youth (Hautmann et al., 2009; Kazdin & Weisz, 1998; van de Weil et al., 2002). An in-depth review of PMT outcomes has shown a wide array of positive improvements in children and adolescents. For example, multiple informants (e.g., parents, teachers, and children) report problematic behavior reductions, behaviors reduce to non-significant clinical ranges, and parents maintain gains following treatment (Kazdin, 1997). A meta-analysis conducted by Serketich & Dumas (1996) examined 26 controlled studies looking at the effectiveness of behavioral parent training on antisocial behaviors in children. Results support the short-term effectiveness of the treatment, with mean effect sizes ranging from 0.73 to

0.84, indicating large effects. These outcomes were based on parent, observer, and teacher reports of the children. Furthermore, child outcomes produced an overall effect size of .86. The analysis found that behavioral parent training was most effective with older children that were approximately 10 years in age versus preschool children. The authors noted that research is still needed in order to determine whether gains are maintained over time.

One meta-analytic review of effective treatments for conduct problems in children and adolescents concluded that treatments for childhood disruptive behavioral concerns, including PMT, are effective (Brestan & Eyberg; 1998). A follow-up report examining more recent research on treatments for disruptive behaviors in childhood and later adolescence further substantiated this claim (Eyberg et al., 2008). The authors reported that the field is now in a position to advance inquiries beyond simply asking *if* these treatments work. Instead, research questions should address secondary concerns regarding specifics about treatment effectiveness, such as what components are particularly effective for whom and under what conditions (Brestan & Eyberg; 1998).

Kaminski, Valle, Filene and Boyle (2008) conducted a meta-analytic review to examine the specific components utilized in parent training programs in order to determine which components produce the largest treatment effect sizes. The analysis was a broad look at different types of training programs for young children (0-7 years of age). It included studies with a variety of parent training program aims ranging from reducing disruptive behaviors, increasing positive parenting, to preventing child abuse. Significant results from the analysis include findings that parent's knowledge, attitudes, and efficacy had larger effects than parenting behaviors and skills. Additionally, programs that emphasized a greater focus on improving the parent-child relationship and those that utilized in-session practice of new skills had larger

effects than programs without these components. Improving the parent-child relationship can be exhibited in a variety of formats including things such as spending more time with the child or engaging in positive interactions with the child (i.e., praising the child or attending to the positive opposites of problematic behaviors). Results also indicated that for externalizing child behaviors, using time out as a disciplinary strategy and being consistent with responses to child behaviors resulted in significantly larger effects than those that did not employ these strategies. Things that were not associated with large effects include providing parents with information regarding child development and using manualized treatments (Kaminski et al., 2008).

Taken together, reviews and meta-analyses point to the effectiveness of PMT at addressing behavior problems in children, particularly when these programs include a focus on improving the relationship between parents and children, allowing for in-session practice of learned materials, and emphasizing parenting skills (e.g., time out and consistency in discipline).

### **Externalizing Behavior Problems in Primary Care**

Children often present to primary care settings with psychological disturbances that are frequently behavioral in nature (O'Donohue, Byrd, Cummings, & Henderson, 2005). For example, it has been estimated that prevalence rates of ADHD in primary care settings are between 4-12%, which are similar to those found in the general population (Brown et al., 2001; Stein & Perrin, 2003). A large survey of pediatric clinicians found that 19% of visits included the identification of a psychosocial problem, including behavioral and conduct problems (Rushton, Bruckman, & Kelleher, 2002). Another study estimated that up to 60% of physician appointments dealt with issues relating to child exhibited ADHD difficulties (Hoagwood, Kelleher, Feil, & Comer, 2000). Mental health issues were often the primary concern for the medical visit.

Researchers have surveyed pediatric populations using previously established measures that assess for behavior problems in children. A study conducted by Polaha Dalton, & Allen (2011) assessed pediatric patients using the Pediatric Symptom Checklist and determined that 16.2% had clinically significant behavioral problems. Another study found that 9.6% of children had subthreshold externalizing symptoms and 15.5% met criteria for diagnosis of a childhood behavioral disorder (Briggs-Gowan et al., 2003). Research using parental report on the Child Behavior Checklist found that up to 9% of children had a behavioral disorder while specific rates for CD, ODD, and ADHD ranged between 3.3% and 6.6% (Egger & Angold, 2006).

### **Integrated Primary Care**

Consistent with the data provided above, primary care has been described as the *de facto* mental health care system in the United States, particularly for underserved populations (Kessler & Stafford, 2008). Integrating psychological services into primary care alongside traditional medical practices has become necessary in order to address existing mental health concerns in this setting. The integration of medical and mental services provides a health care system that addresses behavioral health issues during medical visits, thus eliminating the wait between detection of mental health problems and their treatment (Strosahl, 1998). The theory of integrated behavioral health care is notably different from that of traditional mental health. For example, overall patient functional improvement is of greater importance than achieving reductions in number of symptoms and behavioral health service providers are viewed as direct extensions of the medical health care team (Robinson & Reiter, 2007). In this way, rapport that is established with medical providers typically transfers to the mental health provider as well. Differences also exist in the way services are conducted in an integrated behavioral health care setting. For instance, sessions last approximately 30 minutes (O'Donohue, et al., 2005) and are



typically spaced out weeks apart from one another (Bryan et al., 2012). Working as part of a multidisciplinary health care team relies on medical and mental health care providers collaborating in order to provide quality patient health care (Bachrach, 1996; Blount, 2003; Felker et al., 2004). Integrated primary care settings grant patients access to mental health services in addition to the medical services they typically receive from primary care providers.

### **Preliminary Support for PMT in Primary Care**

Externalizing behavioral concerns have been addressed in medical centers, including primary care settings. However, comparatively few studies have investigated the effectiveness of PMT interventions delivered in *integrated* primary care settings. One study examined PMT in routine care to explore whether interventions offered in naturalistic settings would produce decreases in children's behavioral problems (Hautmann et al., 2009). Researchers utilized 37 locations that included pediatric primary care settings employing a wide array of mental health providers. Results indicated significant reductions in behavioral symptomology. However, treatment spanned 12 group sessions that lasted between 1.5 and 2 hours each (Hautmann et al., 2009). This intervention delivery format does not lend itself well to an integrated behavioral health care approach where sessions typically last no more than 30 minutes, and it is unclear how many of the 324 families included in the study were seen in primary care centers versus other medical locations, such as hospitals.

Another study, conducted at a children's hospital, provided PMT interventions to young children with behavior problems (Axelrad, Garland, & Love, 2009). Authors of the study created a truncated manualized PMT protocol that offered five core sessions, each lasting 50 minutes. Optional sessions could be added if children experienced other childhood issues, such as enuresis or encopresis. Parent and teacher ratings on several measures (e.g., the Behavioral Assessment

System for Children-2 and the Eyberg Child Behavior Inventory) significantly declined, indicating positive treatment gains (Axelrad, Garland, & Love, 2009). Once again, the lengthy visits, spanning several sessions, do not lend themselves to a brief integrated format so it is unclear if similar positive outcomes would be obtained in integrated settings.

Research conducted by Kjobli and Ogden (2012) utilized a brief parent training intervention in a randomized trial examining its effectiveness with children presenting with conduct problems in primary care. The treatment promoted specific parenting skills such as positive involvement, problem solving, and monitoring. Prior to receiving services, parents filled out baseline questionnaires. Families were randomly assigned to either the treatment condition or regular services. Those in the treatment condition received an average of 5.4 hours of treatment. Out of the entire sample of 216, only 187 caregivers completed pre- and post- assessments. Effect sizes ranged from .21 to .65 and provided preliminary support that brief parent training increased positive parenting practices and reduced behavioral problems in children (Kjobli & Ogden, 2012). This study utilized a preexisting parent training module with specified treatment components and required several hours of intervention.

Research by Axelrad, Pendley, Miller, & Tynan (2008) was conducted in a structured training clinic where pre-doctoral psychology interns and medical residents provide treatment to children with behavioral concerns. Sessions were brief, typically lasting 30 minutes, and the range of sessions spanned 2-18. This research group conducted an exploratory qualitative analysis of services provided at their clinic. They found that 80% of sampled children were seen for externalizing behavior problems and were delivered various interventions that incorporated behavior principles from empirically supported treatments. Intern session notes, located in patients' medical charts, were used to gather information regarding treatment outcomes. The data

indicated that 56% of pediatric patients showed improvements as evidenced by either clinician-initiated discontinuation of therapy services due to alleviation of initial problem behaviors or early termination of therapy services with clinician noted symptom reductions (Axelrad et al., 2008). This study provides exploratory support for the notion that externalizing behavior problems can be altogether ameliorated or significantly reduced via brief behavioral interventions delivered in integrated pediatric clinics. However, this study lacked quantitative evidence to support its effectiveness.

Gomez et al. (2014) investigated the effectiveness of providing brief behavioral health interventions for pediatric patients in two integrated primary care clinics. Twenty-one caregiver and youth dyad pairs that had been seen for at least two behavioral health visits were included in an open trial. Youth presented with behavioral symptoms ranging from oppositional behaviors, inattention/ hyperactivity, subthreshold behavioral issues (e.g., temper tantrums), and other externalizing behavior problems. Interventions included empirically supported treatment components of PMT such as psychoeducation and practice with praise, selective ignoring, time out, and token economies/reward systems. Sessions lasted between 15 and 30 minutes and were spaced weeks apart. Results indicated significant reductions in child global distress as measured by the A Collaborative Outcomes Resource Network (ACORN) questionnaire. Additionally, boys and girls displayed similar improvements and caregivers reported being highly satisfied with the services they received. Although results of the study provide preliminary support for delivering brief behavioral interventions in primary care, there were study limitations including small sample size, incomplete caregiver data for adolescent patients, lack of a control condition, and lack of information regarding patient attrition rates. Additional research is still needed in order to gain a better understanding of the effectiveness of providing brief behavioral

interventions for children with externalizing behavioral problems that present to primary care settings.

### **A Call for Primary Care/Mental Health Integration**

Former president George W. Bush's *New Freedom Commission on Mental Health* (UDHHS, 2003) documents the need to reform the mental health care system and provides recommendations for ways to improve mental health delivery. Six goals are outlined in the report and recommendations are provided on how to achieve each goal. Of relevance to this study, goal four highlights the importance of early mental health screening. It is noted that the mental wellbeing of young children needs to be promoted and it is recommended that screens occur in primary care settings as this is a desirable way to connect families with needed treatment and support they might not otherwise receive. Scholars have reviewed the report and have provided support of its contents and goals (Mills et al., 2006; Wang et al., 2006).

Hogan (2003) expanded upon ideas presented in the report and suggests that primary care settings are a sensible place to conduct pediatric screenings as long as proper infrastructure is available to conduct such screenings. Furthermore, "collaborative care models" that integrate mental and medical health services are cited as an "effective approach" to achieve such a goal (Hogan, 2003, p. 1473). Unuzer, Schoenbaum, Druss, & Katon (2006) also reviewed the report and urged for a paradigm shift to occur in the way medical and mental health professionals are trained. They recommend medical students become more familiar with mental health disorders and that mental health professionals be taught how to deliver brief interventions that are suited for a fast-paced medical environment. Additionally, Unuzer et al. (2006) recommend that both professions receive educational training that teaches a multidisciplinary team work approach to service delivery in primary care settings.

Another research group (Huang et al., 2005) reviewed the *New Freedom Commission on Mental Health* with consideration of its application to children and families. They support the notion of early screening and intervention in pediatric care because early detection provides the best chance for positive results. Huang and colleagues (2005) strongly recommend that psychologists be fully involved with screening processes from construction of screening materials to actual service delivery. They note that psychologists' expertise in mental health and psychometrics would be a great asset to this task.

Early detection of behavioral health problems in primary care via screening is important in order to prevent further exacerbation of psychological disturbance and improve identification of psychosocial problems in this setting (Simonian, 2006; Weitzman & Leventhal, 2006). Screening children and their families in primary care settings might reduce existing barriers to accessing needed mental health treatment. Multiple sources have provided support for the implementation of such a practice in our current health care system. However, additional research is needed to discern how acceptable and feasible it is to conduct mental health screenings for specific types of pediatric psychological disturbances (e.g., behavioral problems).

## **PURPOSE**

The current study aimed to describe the feasibility and acceptability of offering brief PMT interventions in an integrated behavioral health care setting. For the purpose of this study, feasibility refers to the degree to which the proposed treatment is capable of being delivered to patients with ease. Furthermore, preliminary outcomes of a small *N* randomized control trial of PMT in primary care are presented. The current study had four primary aims.

The first study aim was to determine the prevalence of pediatric patients who present to a primary care clinic with externalizing behavioral problems. The second study aim was to explore

the degree to which PMT is seen as acceptable by determining what percentage of caregivers whose children have externalizing behavioral problems are interested in receiving help for these problems during a routine primary care visit. The third study aim was to examine the feasibility of delivering brief parenting interventions by determining caregivers' ability to extend sufficiently their doctor visit to receive a same-day behavioral health appointment. The fourth study aim was to present preliminary results regarding a randomized control trial of brief PMT in primary care.

## **METHOD**

### **Participants**

Participants were recruited from a primary care clinic in a mid-southern state where behavioral health is an integrated service available to patients. The clinic is part of a network of clinics that comprise a federally qualified health center. The clinics “. . . employ over 200 people, including approximately 30 health care providers who provided health care to over 25,000 patients in 2011” (Bridges et al. 2013, p. 41). Participants were screened as part of a larger randomized control trial (RCT) examining the effectiveness of offering brief PMT in primary care (hereafter referred to as the *small N* study). Participants were 100 primary caregivers of children between the ages of 2-10 years who presented to a pediatric appointment with their child. This age range is similar to those widely used in studies examining parenting treatment effectiveness for children with behavioral problems (Axelrad, et al., 2009; Hautmann et al., 2010; Peters, Calam, & Harrington, 2004). Since caregivers were asked multiple questions regarding their child's behavioral conduct, only children who attended appointments with their primary caregiver were included in the study. Those who attended the appointment with an adult

who was not their primary caregiver were excluded from the study. Additionally, non-English speaking families who required an interpreter were excluded.

Demographic information such as child gender, age, insurance status, language preference, ethnicity and race were gathered via a combination of caregiver report and the pediatric patient's electronic medical records. The 100 children in this study had a mean age of 5.32 years ( $SD = 2.4$ ) and 54% were female. Racially, children in this study were largely White (54%) and Pacific Islander (20%). In terms of ethnicity, 54% of children identified as Non-Hispanic and 35% identified as Hispanic. Although all procedures were conducted in English, many of the children were bilingual and had a language preference for either Spanish (19%) or Marshallese (13%). A majority of children were insured through Medicaid (72%), some were uninsured (25%), and few had private insurance (3%). Demographic information is presented in Table 1.

### **Screening**

A graduate student intern administered a brief checklist of problematic behaviors to caregivers of children meeting eligibility criteria who presented to the clinic for visits with a pediatric provider. The nature of the pediatric visits ranged from well-child medical check visits to same-day sick visits. Caregivers were asked if they experienced problems in any of the following areas: (a) problems with their child back talking or arguing, (b) bedtime problems with their child (ex: their child not wanting to go to bed at night), (c) difficulty getting their child to complete homework assignments, and (d) problems with temper tantrums. Screener questions were administered at the convenience and preference of the pediatric providers and the availability of patients and caregivers. In some instances, questions were asked after pediatricians completely finished their visits, while in other instances questions were asked

before pediatric appointments began. Determining when screener questions would be administered to families was based on a variety of factors including, but not limited to, provider patient flow, nurse or medical assistant recommendations of when to go into a patient room, and amount of time a patient had already been waiting.

A total of 970 pediatric patients were scheduled for visits during the time period the study was being conducted. A large portion ( $n = 739$ ) of these patients were ineligible to be screened due to language barriers and not presenting to their appointments with their primary caregiver. During the study period, a total of 231 pediatric patients were eligible for screening. Of these, 100 (43.3% of eligible patients) were able to be screened. Patients were not screened for a wide variety of reasons including provider errors (e.g., provider forgetting about the screening and telling the patient they were done and could leave) and researcher errors (e.g., patients being added to a provider's schedule at the end of the work day and being overlooked for possible screening).

### **Small *N* Intervention**

Participants were offered the opportunity to enroll in a small *N* randomized trial of brief PMT delivered in primary care. PMT intervention components were embedded within two behavioral health sessions (one same-day visit and a two-week follow-up) that caregivers agreed to attend as part of study participation. The framework that was used for the intervention directly follows those outlined in Kazdin's (2005) book, *Parent Management Training: Treatment for Oppositional, Aggressive, and Antisocial Behavior in Children and Adolescents*. As described by Kazdin, interventions that comprise PMT are grouped into two types, positive and negative, according to the reinforcement employed.



Positive interventions in PMT include the point program, praise program, and attending. The point program is used for behaviors that caregivers would like to increase. This is done by having the parent assign points for different types of behaviors (e.g., minding the parent or completing specific tasks). At the end of the day, points received are exchanged for a reward. The praise program is implemented by simply attending to and praising children for engaging in desired behaviors. Attending is used purposefully to reinforce positive opposite behaviors. Positive opposite behaviors are those that the child does that are the opposite of behaviors caregivers would like the child to discontinue. For example, if a parent would like his child to stop jumping up and down on the couch when viewing television, he would attend to the positive opposite behavior of sitting still on the couch when viewing television. Negative interventions in PMT include time out and reprimands. Time out consists of removing a child from the opportunity to receive attention or rewards when engaging in undesired behaviors, such as verbal and physical aggression. Reprimands, while part of Kazdin's (2005) PMT program, have shown less efficacy in component analyses of PMT (Kaminski et al., 2008).

Kazdin (2005) provides recommendations for which types of PMT intervention components should be provided for specific behavior problems (Table 2). Given the disruptive behaviors the small *N* trial targets, praise/attending to the positive opposite, time out, and the point program are the parenting skills that Kazdin recommends emphasizing. These skills are the ones that have the most meta-analytic support (Kaminski et al., 2008) and address the disruptive behaviors most often seen in pediatric patients of primary care facilities. Each family randomly assigned to the PMT intervention group received parent training for the child's particular presenting problem utilizing the specified PMT components listed in Table 2. If the caregiver

reported numerous concerns regarding their child's behavior, they were asked to select the one behavior they wanted to target first.

### **Screener Measure**

Permission was obtained from the clinic to access medical records for research purposes. As such, demographic information was gathered via clinic electronic medical records and recorded on the top of the screener handouts (Appendix C). Information such as pediatric patient identification number, gender, age, and insurance status were obtained and recorded. Information regarding the date of the screening, whether or not the primary caregiver was present at the appointment, and whether or not the patient was enrolled in the *small N* study was also recorded on the form. Caregiver screeners of patient behaviors contained four dichotomous (yes/no) items that assessed the most common externalizing behavioral problems seen in primary care (back talking/arguing, bedtime problems, homework noncompliance, and temper tantrums). The screener also contained a dichotomous (yes/no) item that asked whether or not the patient would like to speak with a behavior specialist about the endorsed problem. If they responded "no," they were then asked to indicate why they did not want to speak with a behavior specialist. Their answer was recorded verbatim. If they responded "yes" to the item asking if they would like to speak with a behavior specialist about the problem, a final yes/no question asked whether they had time for a same-day appointment. Only patients who endorsed at least one behavior problem, wished to speak with a behavior specialist about the problem, and had time to stay for a same-day appointment with the specialist were offered a chance to enroll in the *small N* study.

### **Small N Measures**

**Demographic Information.** Beyond demographic information collected via electronic medical records and the brief screener, described above, a demographic questionnaire was

verbally administered to primary caregivers (Appendix C). Information regarding who attended the visit, who is living in the child's home, number of children living in the home (and ages), who is the primary caretaker of the child, primary caretaker's age, highest level of education completed by the primary caretaker, where primary caretaker was born (and length of stay in the U.S., if applicable), where the child was born (and length of stay in the U.S., if applicable), whether the child is currently being seen by a mental health professional and, if so, for what reason, whether the child has ever seen a mental health professional and, if so, for what reason, and if the child was ever prescribed medication as part of mental health treatment (and names of medications, if applicable) were obtained.

**Diagnostic Impressions.** The Mini International Neuropsychiatric Interview for children, parent version (MINI-K-P; Sheehan et al., 1998) is a semi-structured interview that is based on DSM-IV criteria for diagnosable mental disorders. MINI-K-P assesses all major Axis I child and adolescent psychiatric disorders and suicidality. For the purposes of this research project, only modules O, P, and Q were used (Appendix C). These modules assess ADHD, CD, and ODD, respectively. Reliability and validity data for the MINI-K-P are unavailable, but the MINI-KID (the identical instrument as the MINI-K-P, but administered directly to youth) generates reliable and valid psychiatric diagnoses for children and adolescents (Sheehan et al., 2010). Concurrent validity was demonstrated with the Schedule for Affective Disorders and Schizophrenia for School Aged Children-Present and Lifetime Version (K-SADS-PL) with diagnoses of mood disorders, anxiety disorders, substance use disorders, ADHD or behavioral disorders, and eating disorders, kappa = 0.56-0.87. The MINI-KID demonstrated adequate interrater and test-retest reliability, kappa = 0.64-1.00, for all disorders except dysthymia (Sheehan et al., 2010). Authors

reported that the concordance of the parent version (MINI-K-P) with the standard MINI-KID is good.

**Parent and Child Behavioral Change.** The Post-Intervention Ratings of Child and Parent Change (PIRCPC) is a 20-item questionnaire (Appendix C) that measures parent's perceptions of change of their own and their child's behavior (Conduct Problems Prevention Research Group [CPPRG], 1990). Each item is rated on a 7-point scale ranging from -3 (*much worse*) to +3 (*much improved*), with no change indicated by a response of 0. The measure produces two subscales and is divided accordingly into two sections. The first scale produces the Rating of Change of Child (RCC) score, which is the mean score of nine items that rate the child's behavior. The second scale produces the Rating of Change of Parent (RCP) score, which is the mean score of 11 items in which the parent rates the perceived change in his/her own behavior towards the child. Technical reports have been provided for this measure for two cohorts of participants, producing Cronbach alpha scores of .91 and .87 for RCC. Alphas of .88 and .93 have been reported for RCP (Rains, 2003).

**Behavioral Problems.** The Eyberg Child Behavior Inventory (ECBI; Eyberg & Ross, 1978) assesses parental report of child behavioral problems. It is a 36-item measure (Appendix C) that assesses frequency of problematic behaviors and endorsement of whether or not the parent views each behavior as currently problematic. Each item is scored on a 7-point scale (1 = *never* and 7 = *always*). Parents are also asked, "Is this a problem now?" and respond either "Yes" or "No." This measure produces two subscale scores. The first score is a total problem score which is the sum of problems circled, ranging from 0-36. The second score is a problem behavior intensity score which is a sum of item endorsement, ranging from 36-262. The ECBI has demonstrated test-retest reliability of .86 and internal consistency of .98 (Robinson, Ross, &

Eyberg, 1977; Robinson & Eyberg, 1978). Concurrent validity has been demonstrated with the Child Behavior Checklist (CBCL) with significant correlations between CBCL Internalizing and Externalizing Scores and ECBI Problem Scores and Intensity Scores, ranging between  $r = .41$  to  $r = .75$  (Boggs, Eyberg, & Reynolds, 1990).

**Parental Knowledge and Efficacy.** A new measure was created in order to assess parental knowledge regarding specific PMT components, parental knowledge regarding biopsychosocial causes of externalizing behavior problems, and parenting efficacy. To the author's knowledge, no known measure specifically looks and parental knowledge as it directly relates to the various components of PMT. As such, Kazdin's (2005) PMT program for children and adolescents was utilized to provide a framework for specific strategies assessed. A 25-item measure was created with five subscales (Appendix C). Three subscales pertained to specific PMT strategies that assess knowledge about (a) praise, (b) point programs, and (c) time out. The fourth subscale assesses knowledge regarding biopsychosocial causes of behavioral problems in children. The fifth subscale assesses level of parenting efficacy. The parental knowledge questions are scored in terms of total percentage of answers that are correct. The efficacy questions produce an efficacy index score ranging between 0-5, where higher numbers indicate greater efficacy. Efficacy questions are scored by providing one point for each positively endorsed efficacy item.

## **Procedures**

The project was approved by the University of Arkansas' Institutional Review Board (Appendix A) and by the proper administrative authorities at the clinic where the study was conducted (i.e., the Executive Director and Director of Behavioral Health). Data collection spanned a total of 20 weeks (from October 2013 to February 2014). The researcher approached

caregivers of children between the ages of 2-10 years who met eligibility criteria and attended the clinic during times in which the study was conducted. For those willing to participate, a brief screener was administered that inquired about the child's behavioral problems, the caregiver's interest in meeting with a behavior specialist to address the problem, and their ability to remain at the clinic for a same-day appointment. If they could not stay, they were scheduled for a behavioral health appointment at a future date. If they could stay, they were informed about the small *N* study and offered an opportunity to participate.

Caregivers who endorsed a behavioral problem, said "yes" to wanting to speak with a behavior specialist, and said "yes" to being able to stay for a same-day appointment were given an opportunity to participate in the small *N* randomized trial. Consenting to this study required that the caregiver attend two brief (approximately 30 minute) behavioral health sessions. After consent was obtained, caregivers were verbally administered a demographic questionnaire and the O, P, and Q sections of the MINI-K-P. Subsequently, caregivers were handed a set of baseline questionnaires to complete themselves which included the Eyberg Child Behavior Inventory and the newly created knowledge and efficacy questionnaire. After initial assessment, the first session content varied depending on whether the family was randomly assigned to the PMT intervention group or the attentional control group.

Those families in the PMT group received training on specific PMT skills that targeted the child's disruptive behavior. Families randomly assigned to the attentional control condition received supportive therapy during their session. Fidelity checklists for both experimental and control conditions were created in order to ensure specific session components were delivered in each session. Specifically, those in the experimental PMT intervention group had the following session components: discuss brief history of the presenting problem, set treatment goals,

complete a functional analysis of the problematic behavior and share it with the caregiver, provide psychoeducation regarding behavioral problems (handout provided), teach caregivers how to praise/attend to the positive opposite behaviors their child displayed (handout provided), teach either time out or points program (handouts provided). Those in the attentional control condition had the following session components: obtain an in-depth history of the presenting problem, discuss and set treatment goals, complete a functional analysis of the problematic behavior and share it with the caregiver, and provide psychoeducation regarding behavior problems (handout provided). Caregivers in both conditions were then asked to track their child's behavioral problems for two weeks and a two-week follow-up appointment was scheduled.

During the second session, caregivers were given a packet of questionnaires that included the Eyberg Child Behavior Inventory, the newly created parental knowledge and efficacy questionnaire, and the Post-Intervention Ratings of Child and Parent Change questionnaire. Caregivers in the PMT group received feedback and continued instruction on previously taught skills, while those in the attentional control group received PMT training to address the presenting concerns of their child. After the second session, the patient and their caregiver were no longer part of the study, but were able to schedule follow-up sessions with a behavioral health specialist at the clinic if they wished to continue working on the presenting problem.

Forty intervention packets which included questionnaires, measures, treatment condition fidelity checklists, handouts, and debriefing forms were created. Half of the packets were prepared with materials for the PMT experimental condition and half of the packets were prepared with materials for the attentional control condition. Packets were then compiled together and numbered. The researcher was completely blind to the condition of each packet, as a third party completed the randomization process using a computer program.

The researcher delivering the PMT interventions to caregivers had 1.5 years' experience working in this network of clinics. Furthermore, the researcher also had adequate experience working with children, delivering behavioral interventions for externalizing problems. Sessions lasted approximately 30 minutes, the typical amount of time taken for behavioral interventions delivered in an integrated health care setting. Following the guidelines set forth by the clinic's behavioral health department, the researcher completed detailed documentation for each study session. Session notes were saved as part of the child's electronic medical record such that pediatricians and other behavioral health personnel had access to information regarding session content and outcomes.

## **RESULTS**

### **Prevalence of Externalizing Behavior Problems**

The first study aim was to determine the prevalence of externalizing behavior problems in primary care pediatric patients, as indicated by a positive screener. Of those screened, 53% of caregivers endorsed one or more behavioral problems in their child. Temper tantrums were the highest endorsed behavioral problem (40%), followed by back talking/arguing (27%), bedtime problems (22%), and homework noncompliance (14%).

A series of t-test and chi square analyses explored demographic differences in patients who screened positive for an externalizing behavior problem versus those who screened negative. Children who screened positive tended to be slightly younger ( $M_{age} = 4.92, SD = 2.44$ ) than those who screened negative ( $M_{age} = 5.77, SD = 2.31$ ),  $t(98) = 1.77, p = .08$ . There were no significant differences between patients who screened positive and those who screened negative with regards to gender,  $X^2(1) = .31, p = .58$ ; race,  $X^2(1) = 3.10, p = .08$ ; ethnicity,  $X^2(1) = .34, p = .56$ ; and insurance status,  $X^2(1) = .01, p = .94$  (Table 3).



## Acceptability

The second study aim was to determine how acceptable caregivers perceived behavioral health services to be when offered in pediatric primary care. Out of the 53 caregivers whose child screened positive for an externalizing behavior problem, 23% ( $n = 12$ ) responded “yes” when asked if they wanted to speak with a behavioral health specialist about the problem.

If caregivers endorsed a behavioral problem but did not want to meet with a behavioral health specialist, they were asked why and responses were recorded verbatim. Qualitative data analyses were then conducted on caregiver responses using guidelines set forth by Braun & Clarke (2006). To begin, all responses were examined in order to identify distinct pieces of information regarding reasons for refusing help. Fifty-one responses were identified and catalogued under a descriptive label that best captured the essence of the statement. Like responses were collapsed into categories, and responses with minimal occurrences were collapsed into an “other” category.

Caregivers provided a myriad of reasons for not wanting help for an identified behavioral problem, which were coded into six distinct categories (Table 4). The most common response category (34% of responses) was that caregivers saw the behavior as normative and not a problem of concern. Caregivers also responded with answers that suggested high perceived efficacy for dealing with the externalizing problem behaviors (22% of responses). Some caregivers said that they were already taking action for the identified behavioral problems (22% of responses). Other caregivers contemplated taking future action (20% of responses) but had not yet committed to taking steps towards receiving help. Some caregivers had not yet taken action towards helping their child with behavior problems, but had already made plans to do so (7% of responses). The final response category was an “other” category (15% of responses).

## **Feasibility**

The third study aim was to investigate the feasibility of offering brief PMT interventions by determining caregivers' ability to receive a same-day behavioral health visit. Once families have identified an existing behavioral health problem and have expressed interest in receiving help, what is their actual ability to stay for a same-day appointment? In the current study, only 50% of those that wanted help were able to stay for a same-day appointment (6% of total screened families). Demographic characteristic comparison of children in both groups is presented in Table 5.

## **Small *N* Preliminary Results**

Of the six participants who enrolled in the small *N* randomized control trial, only three returned for their follow-up appointment at the time of this writing. Furthermore, one of the three that returned for their second appointment arrived with a different caregiver; the patient's mother attended the first session but his father attended the second session. Both caregivers presented to the session alone with the child and had very different perspectives regarding his behavioral problems. The boy's mother filled out baseline measures and his father filled out follow-up measures; therefore, this participant was excluded from the study.

Results are presented below in two parts: (a) baseline average scores for the six children who attended the first session, and (b) pre- and post- results for the two children who completed the study to date. These two participants are given pseudonyms to maintain confidentiality.

**Baseline Group Results.** Five of the six children who enrolled in the small *N* treatment study were male and the average age was 5.50 years ( $SD = 2.43$ ). Additional demographic information is presented in Table 5. Five children were randomly assigned to the control condition and one was randomly assigned to the experimental PMT condition. Two of the

children did not meet diagnostic criteria for ADHD, OD, or CD, and two of the children met diagnostic criteria for all of those conditions. The final two children met criteria for ADHD, but neither CD nor ODD.

The average ECBI intensity raw score was 121.83 ( $SD = 33.83$ ) and ranged from 82 to 175. The average score converts to a T-score of 57, which does not meet the clinical cutoff. The average ECBI problem raw score was 19.5 ( $SD = 7.74$ ) and ranged from 8 to 27. The average score converts to a T-score of 67, which does exceed the clinical cutoff. Results indicate that, on average, children enrolled in the small  $N$  randomized control trial exhibited conduct problems that did not reach clinical severity but were deemed highly problematic by caregivers.

Caregiver baseline average knowledge regarding PMT components and biopsychosocial causes of externalizing behavior problems was 75% ( $SD = 12.25$ ) and ranged from 60% to 95% correct responses. Average caregiver efficacy was 4.00 ( $SD = 1.27$ ) and ranged from 2 to 5. Results indicate that, on average, caregivers had average knowledge of the biopsychosocial factors relating to externalizing behavior problems in children and felt somewhat efficacious at managing these problems.

**Case Study #1 – Jonathan.** Jonathan was a 5-year-old white male who presented to his visits with his 24-year-old mother. He lived at home with his mother, his mother's boyfriend, and four other children. The highest level of education his mother completed was some high school (she later obtained her a GED). Jonathan had previously never been seen by a mental health professional. During the screening process, Jonathan's mother endorsed behavioral problems in Jonathan (in particular, homework noncompliance and temper tantrums). Jonathan was randomly assigned to the experimental PMT condition.

At baseline, Jonathan met diagnostic criteria for ADHD, inattentive type as assessed by the MINI-K-P (Table 6). On the ECBI (Figure 1), he scored below the clinical cutoff for behavioral problem intensity ( $T = 56$ ) and above the clinical cutoff for caregiver perception of problematic behavior problems ( $T = 65$ ). Jonathan's mother correctly answered 80% of questions regarding PMT components and biopsychosocial causes of externalizing behavior problems (Figure 2). Her self-efficacy for managing Jonathan's behavior was a 5, which was the highest score one could obtain (Figure 3).

As part of the experimental PMT condition, Jonathan and his mother received a session that focused on gathering a brief problem history, discussing treatment goals, providing the caregiver with a functional analysis of the problem behavior, providing psychoeducation regarding externalizing behavior problems, teaching praise and how to implement time out, and providing child behavior tracking logs. Jonathan's mother reported that she wanted the session to focus on temper tantrums as it was more of a concern than his homework noncompliance. She reported having previously tried time out with little success and expressed interest in learning a structured format to implementing this strategy that was familiar to her.

Jonathan and his mother returned for their follow-up session exactly two weeks later. At this time, Jonathan scored below the clinical cutoff for both behavioral intensity ( $T = 51$ ) and perceived problem ( $T = 59$ ) on the ECBI (Figure 1). Jonathan's mother correctly answered 75% of questions regarding PMT components and biopsychosocial causes of externalizing behavior problems (Figure 2). It is beneficial to take a closer look at how his mother performed on subscales that correspond with information she received in the first session (i.e., psychoeducation regarding the biopsychosocial causes of behavior problems, information regarding praise, and information regarding time out). On all three subscales, she performed exactly the same, getting

4 of 5 questions correct. This indicates that her baseline knowledge regarding components received did not improve. Jonathan's mother's self-efficacy remained a 5 (Figure 3).

Nevertheless, based on PIRPC results, Jonathon's mother believed that her parenting had "somewhat improved" and based on PIRCC results, she believed his behavior had improved "a little." Specifically, Jonathan's mother reported "much improvement" in the amount she yelled at her child, in the amount of praise she gave her child, and how well she got along with her child.

**Case Study #2 – Diego.** Diego was a 4-year-old Hispanic male who presented to his visits with his 26-year-old mother. He lived at home with his mother, father, and older sister. The highest level of education his mother completed was high school. Diego's mother was born in Central America and had been in the United States for approximately 10 years. Diego had never been seen by a mental health professional before. During the screening process, Diego's mother endorsed behavioral problems related to bedtime routines. Diego was randomly assigned to the control condition.

At baseline, Diego met diagnostic criteria for ADHD, hyperactive/impulsive type as assessed by the MINI-K-P (Table 6). On the ECBI (Figure 1), he scored below the clinical cutoff for both behavioral problem intensity ( $T = 48$ ) and caregiver perception of problematic behavior problems ( $T = 58$ ). Diego's mother correctly answered 75% of questions regarding PMT components and biopsychosocial causes of externalizing behavior problems (Figure 2). His mother's self-efficacy for managing Diego's behavior problems was a 5, which was the highest score one could obtain (see Figure 3).

As part of the attentional control group, Diego and his mother received a session that focused on gathering an extensive problem history, discussing treatment goals, providing the

caregiver with a functional analysis of the problem behavior, providing psychoeducation regarding externalizing behavior problems, and providing child behavior tracking logs.

Diego and his mother returned for their follow-up session five weeks later. They were unable to keep their original 2-week follow-up date and rescheduled on a day and time when both Diego and his sister could be seen for their respective appointments at the clinic. At follow-up (Figure 1), Diego's ECBI behavioral intensity score remained the same ( $T = 48$ ) and his perceived problem score declined a few points ( $T = 55$ ). Diego's mother correctly answered 65% of questions regarding PMT components and biopsychosocial causes of externalizing behavior problems (Figure 2). It is beneficial to take a closer look at how his mother performed on subscales that correspond with information she received in the first session (i.e., psychoeducation regarding the biopsychosocial causes of behavior problems). On this subscale, she performed exactly the same, getting 4 of 5 questions correct. This indicates that her baseline knowledge regarding causes of behavior problems did not improve. His mother's self-efficacy score dropped a bit to a 4 (Figure 3). Based on PIRPC results, Diego's mother believed that her parenting had improved "a little" and based on PIRCC results, she believed Diego's behavior had improved "somewhat." Specifically, Diego's mother reported "much improvement" with her satisfaction with being a parent to her child and the amount of praise she gave him. Additionally, she reported "much improvement" with Diego's ability to get along with adults, his ability to follow rules, and his willingness to follow her instructions.

## **DISCUSSION**

This study sought to explore whether or not caregivers of children with externalizing behavior problems think it is acceptable to receive brief behavioral health interventions at the time of their pediatric primary care visits and whether caregivers have the ability to extend same-

day visits to do so. Furthermore it sought to provide additional support to the paucity of literature that illustrates brief parenting interventions in integrated behavioral health care lead to positive outcomes in children and youth with disruptive behavioral problems (Axelrad et al., 2008; Gomez et al., 2014).

### **Acceptability**

Data from this study suggest many caregivers are not interested in receiving brief behavioral health services when given the opportunity. When queried about reasons why caregivers were not interested in receiving help, responses ranged greatly. Caregivers provided a plethora of reasons why they were uninterested in receiving same-day behavioral health assistance that could be considered to reflect diverse stages of change: some caregivers did not see the behaviors as problematic or requiring services (akin to precontemplation), some were contemplating future action (contemplation), some had taken steps towards future action such as by enrolling in a course that would begin soon (preparation), and some were already involved in change efforts in other contexts (action). This is consistent with a population-based screening for any type of behavior change (see, for instance, Prochaska et al., 2005).

Responses indicated a large portion of caregivers did not agree that the problem had reached a threshold to be considered a high priority issue or saw the identified behavioral problems as normative. The notion that parental perceived severity was low may present as a significant challenge when working with pediatric populations. Early intervention is more successful than later attempts to enact changes in young children with behavior problems (Stormont, 2002; Webster-Stratton, 1997). If caregivers do not believe they need the behavioral interventions we are trying to provide in primary care, it could be difficult to reach children in these settings. Similar concerns arise with other prevention efforts, including vaccinating

children (Salmon et al., 2005; Smith, Kennedy, Wooten, Gust & Pickering, 2006). Education campaigns and making behavioral health visits a routine part of medical care may help reduce this barrier to service seeking.

Other caregivers in the study had high parenting efficacy and did not believe they needed external assistance. High perceived parenting efficacy is consistent with baseline small *N* study results which found average caregiver efficacy among the six caregivers was 4 on a 0-5 scale. In these cases, it is possible that reinforcing efficacy and bolstering parents' attempts to manage child behaviors may be sufficient.

Some caregivers refused help because they were already taking action (e.g., seeing a mental health provider within their child's school system) so they truly were not in need of assistance for identified behavior problems. Other caregivers reported that they were contemplating future action. Of these response types, many caregivers reported that future action efforts would depend on whether the issue self-resolved within a reasonable time frame. Taken together, results might indicate that some caregivers are in the early stages of change and mental health providers might consider adopting motivational interviewing strategies to help them move towards preparation- and action-like stages (Miller & Rollnick, 2002).

On the whole, refusal responses did not indicate negative perceptions regarding mental health services being offered in primary care or stigma associated with mental health services generally. This is consistent with others who argue integration of behavioral and physical health services reduces stigma (Robinson & Reiter, 2007). As such, acceptability appears to be more a function of the relative disruptiveness of the behavior in the caregiver's life than of access or negative perceptions of treatment. This suggests addressing behavioral issues in primary care may be highly acceptable for those patients and caregivers who are ready to make changes.



## **Feasibility**

Even when caregivers expressed interested in receiving help, it was often difficult for them to extend their primary care appointment to include a behavioral health visit. Caregivers in the study were often screened after their medical appointment and might not have been informed that a behavioral health specialist was going to ask questions about their child's behavior after their medical visit. As such, it is possible that some caregivers thought they were done for the day and were ready to go home. At the clinic, caregivers are given reminder phone calls a few days before their scheduled appointment time. They are told the nature of the medical visit and have a general idea of how much time they should plan to be at the clinic. In this type of setting, it is not surprising that it is difficult for caregivers to sufficiently extend their same-day visits to include an additional 15-30 minute visit, because they did not preplan for it. Anecdotally, I have seen many caregivers in this setting leave appointments early or altogether cancel them after having been in the waiting area too long because they have somewhere else to be at a specific time, including needing to return to work, getting their child back to school, and picking up a friend or family member from an event. In order to increase feasibility of same-day behavioral health appointments for pediatric primary care patients, it might be of benefit to inform patients during reminder calls and during medical appointment check-ins that there are opportunities to receive other services that could add additional time to their visits. It may even be helpful to anticipate a visit length that is 15-30 minutes greater than a typical medical visit, since patients rarely complain if visits take less time than they had anticipated but are often quite burdened when visits take longer than scheduled. Taking extra time prior to and the day of their appointment to educate patients about the potential length of visits could aid in the likelihood of caregivers accepting same-day assistance with behavioral problems in their children.

### **Preliminary Small *N* Results**

The two case study families that returned for a follow-up session met baseline threshold for ADHD. The third family that returned for a follow-up session but was not included in the case study results due to presenting to each session with a different caregiver did not meet threshold for any behavioral disorder that was assessed (ADHD, ODD, CD). The children who met criteria for all three disorders did not return for a second session. This preliminary pattern of results may suggest that families with children who have myriad behavioral problems may experience greater difficulty in returning to the primary care clinic for a second behavioral health session. This may be consistent with data suggesting families of children with multiple behavior disorders may experience greater stressors of all sorts than families of children with few or no disorders (Qi & Kaiser, 2003). These other stressors may be responsible for the difficulties caregivers had in returning for follow-up visits. On the other hand, a meta-analysis conducted by Reyno and McGrath (2006) found that more severe child behavior problems pretreatment are not significantly associated with dropout. As the small *N* study continues to enroll participants, additional attention to drop-out rates will be important.

Both Jonathan and Diego's scores on the ECBI either improved or remained constant from first to second session. This is encouraging because it suggests that receiving either a brief PMT or supportive therapy intervention does not result in a decline in behavioral functioning. In other words, no harm was detected in children's behavioral responses in either study condition. Furthermore, caregivers reported improvements in both parenting behaviors and child behaviors. Contrary to expectations, gains were made in both cases. As additional participants are enrolled in the study, it will be interesting to determine the additional value of incorporating behavior-based PMT principles into supportive treatments in primary care.

An unexpected result occurred in that caregivers' knowledge did not improve with regards to information presented to them in the first session. Parents received both verbal instruction about new concepts and received a handout that they could refer to at a later time. A closer look at caregiver performance on the newly created knowledge measure indicated that parents did not get better scores on subscales that reflected information they previously received. In fact, their performance was stable (and high). These results could be related to the measure itself. Multiple subscales were created in order to gauge specificity of knowledge obtained. However, each subscale is comprised of only five true/false questions, which might be too few to detect more subtle changes. The results presented thus far are quite preliminary, as only two caregivers' responses are reviewed. Additional information is needed before firm conclusions can be made regarding caregiver performance on the newly created knowledge measure.

Overall, preliminary results suggest that offering a brief session of PMT or supportive therapy might benefit children who present to primary care for behavioral problems. ECBI scores either improved or remained constant and parents reported improvements in both child and parent behavioral changes. Caregiver knowledge with regards to specific components received during their first session did not improve and efficacy either remained constant or slightly declined. At this time, additional data are needed in order to discern whether there are significant differences in treatment gains between those that receive PMT components and those that receive supportive therapy.

### **Limitations**

The current study provided much needed research in the area of feasibility and acceptability of parenting interventions for behavioral problems in children who present to primary care appointments. On the whole, behavioral interventions appear to be acceptable to

patients who are in later stages of change, but feasibility is compromised by expectations for visit length that rarely can accommodate an extension of 30 minutes. However, the study's findings should be considered in light of its limitations. First, the study was conducted at only one primary care clinic. The clinic has a unique culture and is fairly diverse with regard to ethnicity and language. Generalizability of results obtained from this study to other primary care contexts should be done with caution. Furthermore, results of the small *N* randomized control trial should also be interpreted with caution as they are very preliminary and based on an extremely small sample of six participants (only two of whom completed pre and post measures).

Second, the screenings conducted in this study were not implemented in a systematic way. Some participants were screened prior to medical visits, others after. Some patients were told about the study by their pediatrician, while others were simply approached by the researcher. I suspect when the pediatric provider was unable to introduce behavioral health services directly, patients may have been less willing to accept behavioral health services, although this is an untested assumption that should be explored in future studies.

Another limitation was that the researcher's ability to screen patients changed multiple times throughout the duration of the study due to systemic issues relating to clinic operations. For the first three weeks of the study, the researcher was only able to screen uninsured patients, who comprise a very small portion of the pediatric population (Arkansas law requires youth to have insurance coverage and Arkansas Medicaid programs ensures coverage for all children in the state). At the start of the fourth week, the researcher was allowed to screen insured patients in addition to uninsured patients, but only when a full-time behavioral health staff member was present. It was not until the fourteenth week that the researcher was able to screen all patients,

including insured patients in instances when no full-time behavioral health staff members were available.

Limitations were also evident in the small *N* study's preliminary results, especially with regard to the newly created measure of caregiver knowledge and efficacy. Results that utilized this measure gave a proxy of caregiver's knowledge regarding PMT specific components, caregiver's knowledge regarding biopsychosocial causes of behavior problems, and caregiver parenting efficacy. These results should be interpreted with caution because psychometric properties of the measure (e.g., reliability, validity) have not yet been established. It is likely, however, that score range restriction will have a negative impact on results.

Finally, the small *N* study protocol calls for a two-week follow-up appointment. Thus far, there has been wide variability between first and follow-up sessions. The child in the experimental condition that completed both sessions returned exactly two weeks later, while the child in the control condition returned five weeks later. The child that was excluded from the study because his mother attended the first session but his father attended the follow-up session had a lapse of 8.5 weeks between sessions. The wide variability in amount of time between sessions makes it difficult to comment on average treatment gains during a consistent time frame and sustainability of treatment effectiveness over time.

### **Implications and Future Directions**

This study indicates that, while many pediatric patients present with externalizing behavior problems, it is difficult to assist pediatric families with psychosocial issues identified during the time of their medical visits. Many barriers exist to providing PMT in primary care settings. In this study, systemic barriers and cultural/linguistic barriers prevented a large portion of patients from being screened. Of those who were screened, a small percentage was able to stay

for same-day behavioral health appointments. Having caregivers stay an additional 15-30 minutes is taxing when caregivers have often spent significant amounts of time in the waiting area before being escorted to their examination room and finally being seen for their child's medical visit. An important implication from the current study is that parents should be notified about the potential for a lengthy pediatric visit.

A large percentage of patients who attended the clinic on days in which the study was conducted were ineligible for the study and were not screened. One of the most common reasons for study ineligibility had to do with language barriers. A significant proportion of the population the clinic serves speaks a language other than English (e.g., Spanish or Marshallese). For future iterations of screening studies or randomized control trials offered in this network of clinics, it might be best to design the study to better fit the population. Specifically, materials should be provided in other languages when they are available and psychometric properties have been established. Bilingual researchers or interpreters could assist with future studies conducted in this environment. It might also be beneficial to provide culturally modified adaptations of empirically supported treatments to better align with the beliefs and values of the patients.

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Table 1

*Demographic Characteristics of Screener Participants (N = 100)*

Variable	<i>M (SD)</i>	(%)
Age, in years	5.32 (2.40)	
Gender		
Male		(46%)
Female		(54%)
Race		
White		(54%)
Pacific Islander		(20%)
African American		(6%)
Asian		(1%)
Multiple Races		(4%)
Other / Unreported		(15%)
Ethnicity		
Non-Hispanic		(54%)
Hispanic		(35%)
Unreported		(11%)
Language Preference		
English		(68%)
Spanish		(19%)
Marshallese		(13%)
Insurance Status		
Medicaid		(72%)
Private Insurance		(3%)
Uninsured		(25%)



Table 2

*Kazdin's Recommended Interventions for Specific Problem Behaviors*

Problematic Behavior	Interventions
Back talking, arguing	Attending to positive opposite (praise) * Time out * Ignoring Reprimands Denial of privileges
Bedtime problems	Attending to positive opposite (praise) * Point program * Shaping
Not doing homework	Attending to positive opposite (praise) * Point program * Contacting teacher Home-based school program
Tantrums	Attending to positive opposite (praise) * Point program * Time out * Parent walks away from the child

*Note.* Adapted from “Parent Management Training: Treatment for Oppositional, Aggressive, and Antisocial Behavior in Children and Adolescents” by A. E. Kazdin, 2005. New York; Oxford University Press.

<sup>a</sup> For a full list of problematic behaviors and recommended interventions, please reference the cited text.

<sup>b</sup> Asterisk marks indicate interventions that were implemented in the *small N* randomized control study.

Table 3

*Results of Chi Square Analyses of Demographic Variables between Patients Who Screened Positive (+) and Patients Who Screened Negative (-)*

Variable	+ Screen (N=53)	- Screen (N = 47)	$X^2$	df	p Value
Gender			0.31	1	.579
Male	23 (43.4%)	23 (48.9%)			
Female	30 (56.6%)	24 (51.1%)			
Race			3.10	1	.078
White	33 (62.3%)	21 (44.7%)			
Non-white	20 (37.7%)	26 (55.3%)			
Ethnicity			0.34	1	.559
Non-Hispanic	29 (58%)	25 (64.1%)			
Hispanic	21 (42%)	14 (35.9%)			
Insurance Status			0.01	1	.943
Medicaid	38 (71.7%)	34 (72.3%)			
Non-Medicaid	15 (28.3%)	13 (27.7%)			

*Note.* Eleven caregivers refused to report child ethnicity (3 that screened positive and 8 that screened negative).

Table 4

*Why Caregivers did not Want Help for Identified Behavioral Problems (N = 41)*

Response Category	N (%)	Sample Response
Normative/ Not Seen as a Problem	14 (34%)	“It’s normal; he’ll grow out of it.” “It’s not that big of a deal . . .”
High Perceived Efficacy	11 (27%)	“I can handle it on my own.” “Things are okay, I can manage her.”
Currently Taking Action	9 (22%)	“She’s going to a counselor already at school.” “They already see someone here for behavior.”
Contemplating Future Action	8 (20%)	“Maybe in 2 wks from now? - - We are coming back.” “. . . if she doesn’t grow out of it, then I’ll talk to someone.”
Other	6 (15%)	“I’ll let her mom take care of that.” “I don’t want to.”
Plans to Take Future Action	3 (7%)	“I will be taking parenting classes at the Jones Center soon.” “I received a referral today.”

*Note.* Caregiver reasons often included several pieces of information that were coded into more than one response category, thus percentages do not equal 100.

Table 5

*Demographic Characteristics of Those Who Wanted Help and Stayed (N = 6) and Those Who Wanted Help but Could Not Stay (N = 6) for a Same-day Appointment*

Variable	Wanted Help, Stayed		Wanted Help, Could Not Stay	
	<i>M (SD)</i>	<i>N (%)</i>	<i>M (SD)</i>	<i>N (%)</i>
Age, in years	5.50 (2.43)		4.83 (2.32)	
Gender				
Male		5 (83%)		1 (17%)
Female		1 (17%)		5 (83%)
Race				
White		4 (67%)		5 (83%)
Pacific Islander		--		1 (17%)
Other / Unreported		2 (33%)		--
Ethnicity				
Non-Hispanic		3 (50%)		3 (50%)
Hispanic		3 (50%)		3 (50%)
Insurance Status				
Medicaid		4 (67%)		3 (50%)
Uninsured		2 (33%)		3 (50%)
Primary Caregiver				
Mother		6 (100%)		--
Caregiver Age	30 (7.40)		--	
Caregiver Highest Level of Education Completed				
Professional Degree		1 (17%)		--
GED		1 (17%)		--
High School		2 (33%)		--
Middle School		2 (33%)		--

Table 6

*Mini International Neuropsychiatric Interview (MINI) Baseline Results*

Participant	Study Condition	ADHD	CD	ODD
Case Study #1 – Jonathan	Experimental	Yes Inattentive Type	No	No
Case Study #2 – Diego	Control	Yes Hyperactive/Impulsive Type	No	No

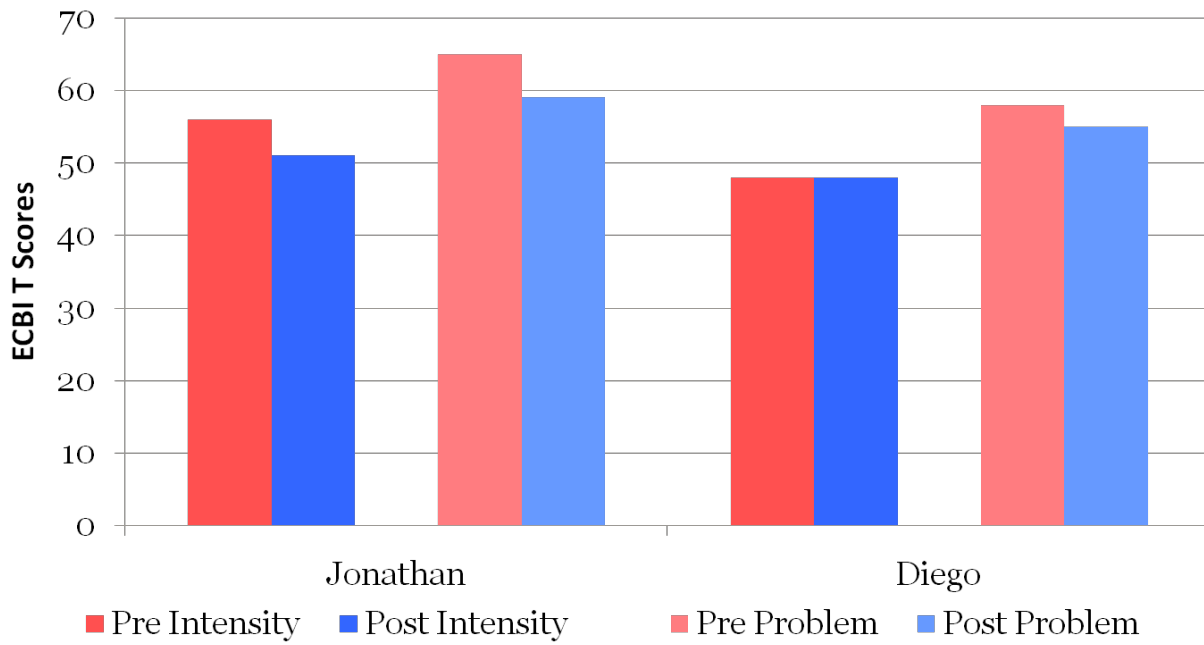
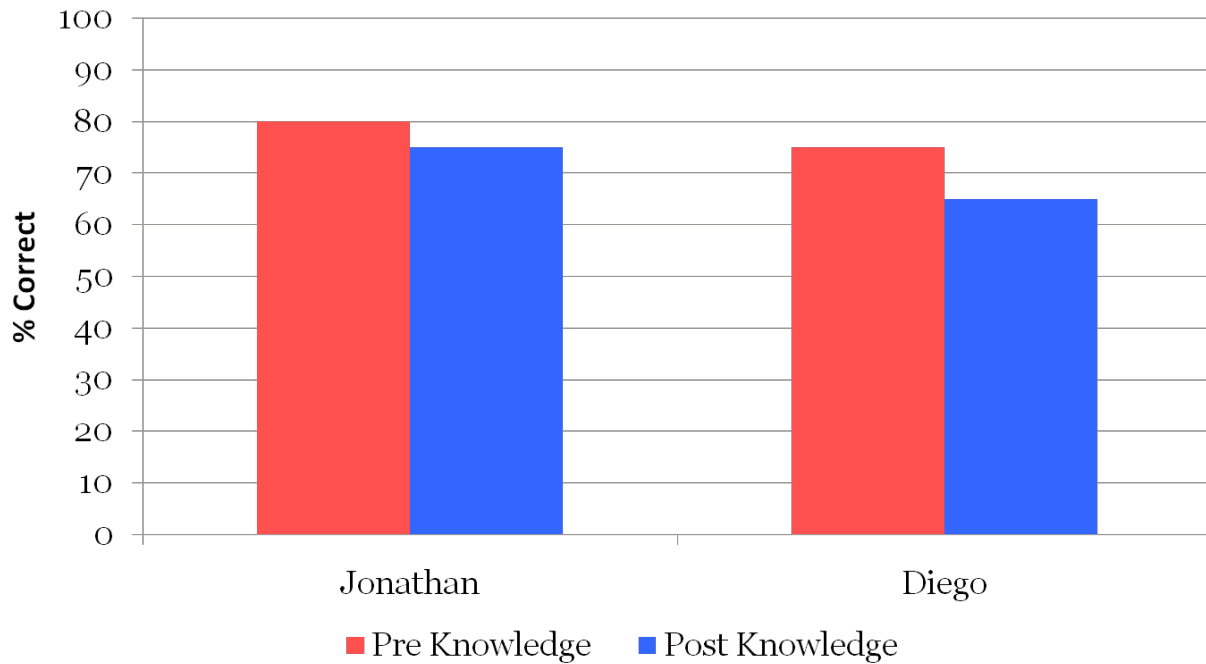
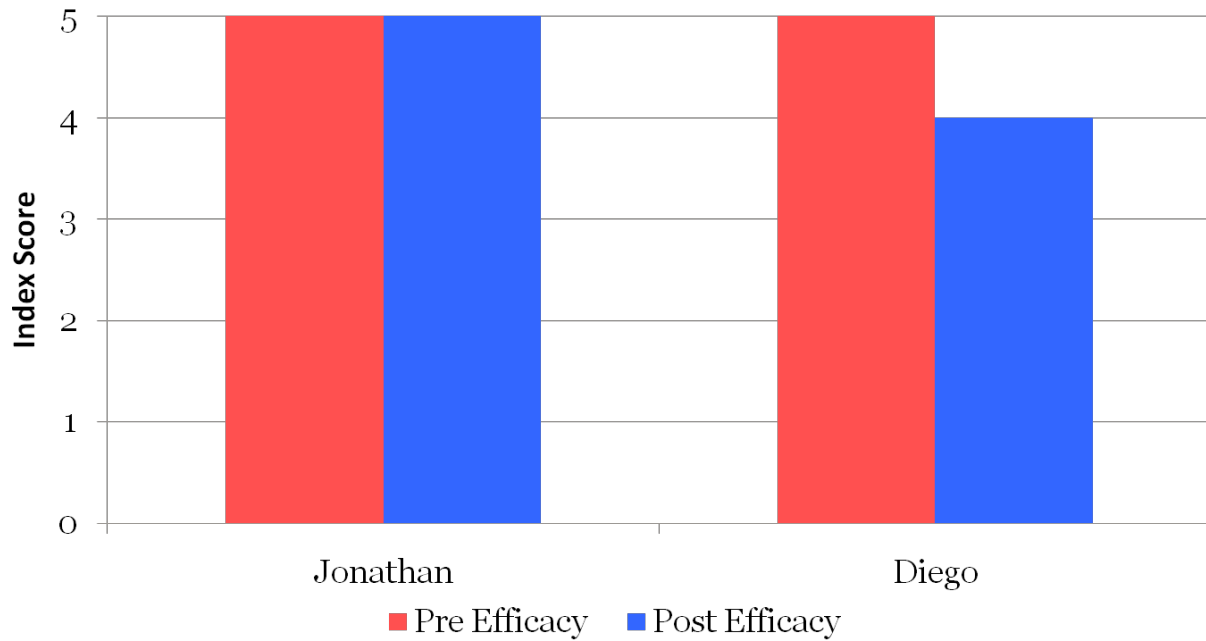


Figure 1. Eyberg Child Behavior Inventory T scores for the Intensity and Problem subscales at baseline (pre) and follow-up (post). T scores exceeding 60 meet clinical cutoffs.



*Figure 2.* Percentage of correct answers on the caregiver knowledge questionnaire regarding specific PMT components and biopsychosocial causes of externalizing behavior problems at baseline (pre) and follow-up (post).



*Figure 3.* Efficacy index scores regarding parenting at baseline (pre) and follow-up (post). Scores range from 0-5, with higher scores indicative of greater efficacy.



*Appendix A*  
IRB Approval Letter

October 4, 2013

MEMORANDUM

TO: Debbie Gomez  
Hayden Pacl  
Ana Bridges

FROM: Ro Windwalker  
IRB Coordinator

RE: PROJECT MODIFICATION

IRB Protocol #: 13-04-647

Protocol Title: *The Parent Project*

Review Type:       EXEMPT     EXPEDITED       FULL IRB  
Approved Project Period:      Start Date: 10/04/2013      Expiration Date: 05/12/2014

Your request to modify the referenced protocol has been approved by the IRB. **This protocol is currently approved for 40 total participants.** If you wish to make any further modifications in the approved protocol, including enrolling more than this number, you must seek approval prior to implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

Please note that this approval does not extend the Approved Project Period. Should you wish to extend your project beyond the current expiration date, you must submit a request for continuation using the UAF IRB form “Continuing Review for IRB Approved Projects.” The request should be sent to the IRB Coordinator, 210 Administration.

For protocols requiring FULL IRB review, please submit your request at least one month prior to the current expiration date. (High-risk protocols may require even more time for approval.) For protocols requiring an EXPEDITED or EXEMPT review, submit your request at least two weeks prior to the current expiration date. Failure to obtain approval for a continuation on or prior to the currently approved expiration date will result in termination of the protocol and you will be required to submit a new protocol to the IRB before continuing the project. Data collected past the protocol expiration date may need to be eliminated from the dataset should you wish to publish. Only data collected under a currently approved protocol can be certified by the IRB for any purpose.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or [irb@uark.edu](mailto:irb@uark.edu).

*Appendix B*  
Eyberg Child Behavior Inventory Permission Agreement



Creating Connections. Changing Lives.

16204 N. FLORIDA AVENUE • LUTZ, FLORIDA 33549  
Telephone: 813.968.3003 • Fax: 813.968.2598 • Web: www.parinc.com

**Sent Via Email: deegomez2005@gmail.com**

June 27, 2014

Debbie Gomez  
University of Arkansas  
216 Memorial Hall  
Fayetteville, AR 72701

Dear Ms. Gomez:

In response to your recent request, permission is hereby granted to you to include up to a total of three (3) sample items from the Eyberg Child Behavior Inventory (ECBI) in the appendix of your master's thesis titled, *Parent Management Training in Primary Care: Feasibility, Acceptability, and Preliminary Results*. If additional material is needed, then further permission from PAR is required.

This Agreement is subject to the following restrictions:

- (1) Any and all materials used will contain the following credit line:  

"Reproduced by special permission of the Publisher, Psychological Assessment Resources, Inc., 16204 North Florida Avenue, Lutz, Florida 33549, from the Eyberg Child Behavior Inventory by Sheila Eyberg, Ph.D., Copyright 1998, 1999 by PAR, Inc. Further reproduction is prohibited without permission from PAR, Inc."
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Telephone: 877-968-1529 • Fax: 813-942-2958 • Web: [www.parinc.com](http://www.parinc.com)

TWO COPIES of this Permission Agreement should be signed and returned to me to indicate your agreement with the above restrictions. I will then sign it for PAR and return a fully executed copy to you for your records.

Sincerely,

*Vicki M. McFadden*  
Permissions Specialist  
[vmark@parinc.com](mailto:vmark@parinc.com)  
1-800-331-8378 (phone)  
1-800-727-9329 (fax)

ACCEPTED AND AGREED:

ACCEPTED AND AGREED:



*Appendix C*  
Measures

Patient ID# \_\_\_\_\_ Age \_\_\_\_\_ Pt is self pay? YES NO Sex: M F

Date of Screening \_\_\_\_\_ Primary caregiver present at apt? YES NO

**Pediatric Patient Screener for Debbie's Thesis Project**

Before you ask the screener questions below, make sure that the child is with their primary caregiver. Only primary caregivers of children ages 2-10 yrs are eligible to participate.

<b>1</b>	Do you experience problems with your child back talking or arguing?	<b>Yes</b>	<b>No</b>
<b>2</b>	Do you experience bedtime problems with your child (Ex: your child not wanting to go to bed at night)?	<b>Yes</b>	<b>No</b>
<b>3</b>	Do you have a difficult time getting your child to complete homework assignments?	<b>Yes</b>	<b>No</b>
<b>4</b>	Does your child have temper tantrums?	<b>Yes</b>	<b>No</b>
<ul style="list-style-type: none"> <li>- If caregiver responds <b>NO</b> to all questions, no further action necessary</li> <li>- If caregiver responds <b>YES</b> to any question, continue to the next section</li> </ul>			

Would you like to speak with a behavior specialist about these problems?	<b>Yes</b>	<b>No</b>
--	------------	-----------

<b>IF YES . . . .</b>		
Do you have time to speak with someone today?	<b>Yes</b>	<b>No</b>
<b>If Yes</b> – Inform Debbie, no further action necessary	<b>If No</b> – Have Patient Schedule an Appointment with Another BHC ( <u>NOT Debbie</u> ) at a Future Date/Time	
<b>IF NO . . . .</b>		
Briefly record response of why patient does not want to meet with behavioral health.	<b>RESPONSE:</b>	
No Further Action Necessary		

Was pt. enrolled in study? YES NO

Participant # \_\_\_\_\_

**Parent Project Demographic Questionnaire**

<u>Information to be Gathered From Electronic Medical Records:</u>				
<b>Child Gender</b>	M	F	<b>Child Age</b>	_____
<b>Child Race</b>	White	Marshallese	African American	Other
<b>Child Ethnicity</b>	Hispanic	Non-Hispanic		
<b>Payment Method</b>	Medicaid	Private Insurance	Self-pay	

**What relation are the individuals here today to this child?**

Mother                      Father                      Sister(s) \_\_\_\_\_                      Brother(s) \_\_\_\_\_  
 Grandmother              Grandfather              Aunt    Uncle  
 Cousin                      Other(s) \_\_\_\_\_

**Who is living in the child’s home?**

Mother                      Father                      Sister(s) \_\_\_\_\_                      Brother(s) \_\_\_\_\_  
 Grandmother              Grandfather              Aunt    Uncle  
 Cousin                      Other(s) \_\_\_\_\_

**Number of children in the home?** \_\_\_\_\_ **Ages?** \_\_\_\_\_

**Who is the primary caretaker of this child?** \_\_\_\_\_

**Primary Caretaker Age** \_\_\_\_\_

**Highest Level of Education Completed by Primary Caretaker**

No schooling                      Grade school                      Middle school                      High school  
 Some college, no degree              Associate’s degree                      Bachelor’s degree  
 Master’s degree                      Professional school degree              Doctorate degree

Participant # \_\_\_\_\_

**Where was the primary caretaker born?** \_\_\_\_\_

**Length of stay in US (if applicable)** \_\_\_\_\_

**Where was this child born?** \_\_\_\_\_

**Length of stay in US (if applicable)** \_\_\_\_\_

**Is your child currently being seen by a mental health professional?**    Y    N

**If yes, what is the reason?** \_\_\_\_\_

**Have you ever taken your child to see a mental health professional?**    Y    N

**If yes, what was the reason?** \_\_\_\_\_

**Was your child ever prescribed medication as part of mental health treatment?**    Y    N

**Name of medication(s)** \_\_\_\_\_

## O. ATTENTION DEFICIT/HYPERACTIVITY DISORDER

(➡ MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE)

### SCREENING QUESTION FOR 3 DISORDERS (ADHD, CD, ODD)

O1	Has anyone (teacher, baby sitter, friend or parent) ever complained about his/her behavior or performance in school? IF NO TO THIS QUESTION, ALSO CODE NO TO CONDUCT DISORDER AND OPPOSITIONAL DEFIANT DISORDER	➡ NO	YES
----	--	---------	-----

#### In the past six months:

O2	a	Has (s)he often not paid enough attention to details? Made careless mistakes in school?	NO	YES
	b	Has (s)he often had trouble keeping his/her attention focused when playing or doing schoolwork?	NO	YES
	c	Has (s)he often been told that (s)he does not listen when others talk directly to him/her?	NO	YES
	d	Has (s)he often had trouble following through with what (s)he was told to do (Like not following through on schoolwork or chores)? Did this happen even though (s)he understood what (s)he was supposed to do? Did this happen even though (s)he wasn't trying to be difficult? IF NO TO ANY, CODE NO	NO	YES
	e	Has (s)he often had a hard time getting organized?	NO	YES
	f	Has (s)he often tried to avoid things that make him/her concentrate or think hard (like schoolwork)? Does (s)he hate or dislike things that make him/her concentrate or think hard? IF YES TO EITHER, CODE YES	NO	YES
	g	Has (s)he often lost or forgotten things (s)he needed? Like homework assignments, pencils, or toys?	NO	YES
	h	Does (s)he often get distracted easily by little things (Like sounds or things outside the room)?	NO	YES
	i	Does (s)he often forget to do things (s)he needs to do every day (Like forget to comb his/her hair or brush his/her teeth)?	NO	YES
		<b>O2 SUMMARY: ARE 6 OR MORE O2 ANSWERS CODED YES?</b>	NO	YES

#### In the past six months:

O3	a	Did (s)he often fidget with his/her hands or feet? Or did (s)he squirm in his/her seat? IF YES TO EITHER, CODE YES	NO	YES
	b	Did (s)he often get out of his/her seat in class when (s)he was	NO	YES

not supposed to?

c	Has (s)he often run around or climbed on things when (s)he wasn't supposed to? Did (s)he want to run around or climb on things even though (s)he didn't? IF YES TO EITHER, CODE YES	NO	YES
d	Has (s)he often had a hard time playing quietly?	NO	YES
e	Was (s)he always "on the go"?	NO	YES
f	Has (s)he often talked too much?	NO	YES
g	Has (s)he often blurted out answers before the person or teacher has finished the question?	NO	YES
h	Has (s)he often had trouble waiting his/her turn?	NO	YES
i	Has (s)he often interrupted other people? Like butting in when other people are talking or busy or when they are on the phone?	NO	YES
	<b>O3 SUMMARY: ARE 6 OR MORE O3 ANSWERS CODED YES?</b>	NO	YES
O4	Did (s)he have problems paying attention, being hyper, or impulsive before (s)he was 7 years old?	NO	YES
O5	Did these things cause problems at school? At home? With his/her family? With his/her friends? CODE YES IF TWO OR MORE ARE ENDORSED YES.	NO	YES

IS O2 SUMMARY & O3 SUMMARY CODED YES?

NO	YES
<b><i>Attention Deficit/ Hyperactivity Disorder</i></b>	
<b>COMBINED</b>	

IS O2 SUMMARY CODED YES AND O3 SUMMARY CODED NO?

NO	YES
<b><i>Attention Deficit/ Hyperactivity Disorder</i></b>	
<b>INATTENTIVE</b>	

IS O2 SUMMARY CODED NO AND O3 SUMMARY CODED YES?

NO	YES
<b><i>Attention Deficit/ Hyperactivity Disorder</i></b>	
<b>HYPERACTIVE /IMPULSIVE</b>	



## P. CONDUCT DISORDER

(➡ MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE)

### SCREENING QUESTION

P1 IF QUESTION Q1 IN ADHD IS ANSWERED NO, CODE NO TO CONDUCT DISORDER

IF Q1 WAS NOT ASKED ALREADY, ASK THE QUESTION BELOW

(Has anyone (teacher, baby sitter, friend, parent) ever complained about his/her behavior or performance in school?)



NO YES

P2 In the past year:

- |   |  |         |     |
|---|--|---------|-----|
| a | Has (s)he bullied or threatened other people (excluding siblings)?   | NO      | YES |
| b | Has (s)he started fights with others (excluding siblings)?   | NO      | YES |
| c | Has (s)he used a weapon to hurt someone? Like a knife, gun, bat, or other object?  | NO      | YES |
| d | Has (s)he hurt someone (physically) on purpose (excluding siblings)?   | NO      | YES |
| e | Has (s)he hurt animals on purpose?   | NO      | YES |
| f | Has (s)he stolen things using force? Like robbing someone using a weapon or grabbing something from someone like purse snatching?                                      | NO      | YES |
| g | Has (s)he forced anyone to have sex with him/her?  | NO      | YES |
| h | Has (s)he started fires on purpose in order to cause damage?   | NO      | YES |
| i | Has (s)he destroyed things that belonged to other people on purpose?   | NO      | YES |
| j | Has (s)he broken into someone's house or car?  | NO      | YES |
| k | Has (s)he lied many times in order to get things from people or to get out of things? Tricked other people into doing what (s)he wanted?<br>IF YES TO EITHER, CODE YES | NO      | YES |
| l | Has (s)he stolen things that were worth money (Like shoplifting or forging a check)?   | NO      | YES |
| m | Has (s)he often stayed out a lot later than his/her parents let him/her?<br>Did this start before (s)he was 13 years old?<br>IF NO TO EITHER, CODE NO                  | NO      | YES |
| n | Has (s)he run away from home two times or more?  | NO      | YES |
| o | Has (s)he skipped school often? Did this start before (s)he was 13 years old?<br>IF NO TO EITHER, CODE NO  | NO      | YES |
|   | <b>P2 SUMMARY: ARE 3 OR MORE P2 ANSWERS CODED YES WITH AT LEAST ONE PRESENT IN THE PAST 6 MONTHS?</b>  | ➡<br>NO | YES |

P3 Did these behaviors cause big problems at school? At home?  
With his/her family? Or with his/her friends?

IF YES TO ANY, CODE YES

<b>NO</b>	<b>YES</b>
<b><i>CONDUCT DISORDER CURRENT</i></b>	

## Q. OPPOSITIONAL DEFIANT DISORDER

(➔ MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE)

ATTENTION: IF CODED POSITIVE FOR CONDUCT DISORDER, CIRCLE NO IN THE DIAGNOSTIC BOX AND MOVE TO THE NEXT MODULE.

### SCREENING QUESTION

Q1 IF QUESTION Q1 IN ADHD IS ANSWERED NO, CODE NO TO OPPOSITIONAL DEFIANT DISORDER

IF Q1 WAS NOT ASKED ALREADY, ASK THE QUESTION BELOW

(Has anyone (teacher, baby sitter, friend, parent) ever complained about his/her behavior or performance in school?)

➔  
NO YES

Q2 In the past six months:

- |   |  |    |     |
|---|--|----|-----|
| a | Has (s)he often lost his/her temper?   | NO | YES |
| b | Has (s)he often argued with adults?  | NO | YES |
| c | Has (s)he often refused to do what adults tell him/her to do? Refused to follow rules?<br>IF YES TO EITHER, CODE YES | NO | YES |
| d | Has (s)he often annoyed people on purpose?   | NO | YES |
| e | Has (s)he often blamed other people for his/her mistakes or for his/her bad behavior?                                | NO | YES |
| f | Has (s)he often been "touchy" or easily annoyed by other people?   | NO | YES |
| g | Has (s)he often been angry and resentful toward others?  | NO | YES |
| h | Has (s)he often been "spiteful" or quick to "pay back" somebody who treats him/her wrong?                            | NO | YES |

Q2 SUMMARY: ARE 4 OR MORE OF Q2 ANSWERS CODED YES?

➔  
NO YES

Q3 Did these behaviors cause problems at school? At home? With his/her family? Or with his/her friends?  
IF YES TO ANY, CODE YES

➔  
NO YES

ARE Q2 SUMMARY & Q3 CODED YES?

NO YES

**OPPOSITIONAL DEFIANT  
DISORDER  
CURRENT**

COHORT	SITE	CHILD'S ID	YEAR OF PARTICIPATION	INTERVIEWER NO.
<input type="radio"/> 1st <input type="radio"/> 2nd <input type="radio"/> 3rd	<input type="radio"/> NC <input type="radio"/> TN <input type="radio"/> WA <input type="radio"/> PA	0 0 0 0 1 1 1 1 2 2 2 2 3 3 3 3 4 4 4 4 5 5 5 5 6 6 6 6 7 7 7 7 8 8 8 8 9 9 9 9	<input type="radio"/> 1st <input type="radio"/> 2nd <input type="radio"/> 3rd <input type="radio"/> 4th <input type="radio"/> 5th <input type="radio"/> 6th <input type="radio"/> 7th <input type="radio"/> 8th <input type="radio"/> 9th	0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9

## DUKE FAST TRACK PROJECT

### POST-INTERVENTION RATINGS OF CHILD AND PARENT CHANGE

Child's Name \_\_\_\_\_ Date \_\_\_\_\_

**MARKING INSTRUCTIONS**

- Use #2 pencil only.
- Make dark heavy marks.
- Erase cleanly to change answer.

Right  ●   
 Wrong  ✕  ✓

For each item listed below consider your child's behavior across the school year and rate the degree of change on each.

How much change has there been in:

	MUCH WORSE	SOMEWHAT WORSE	A LITTLE WORSE	NO CHANGE	A LITTLE IMPROVED	SOMEWHAT IMPROVED	MUCH IMPROVED
1. Your child's self-esteem	-3	-2	-1	0	1	2	3
2. Your child's ability to get along with other children	-3	-2	-1	0	1	2	3
3. Your child's ability to get along with adults, such as the teacher and you	-3	-2	-1	0	1	2	3
4. Your child's ability to follow rules	-3	-2	-1	0	1	2	3
5. Your child's self-reliance	-3	-2	-1	0	1	2	3
6. Your child's ability to read	-3	-2	-1	0	1	2	3
7. Your child's willingness to follow your instructions	-3	-2	-1	0	1	2	3
8. Your child's ability to stop and calm down when excited or upset	-3	-2	-1	0	1	2	3
9. How much your child fights with other children	-3	-2	-1	0	1	2	3

How much change has there been in:

1. Your ability to increase your child's positive behavior	-3	-2	-1	0	1	2	3
2. Your ability to decrease your child's negative behavior	-3	-2	-1	0	1	2	3
3. Your satisfaction with being a parent to your child	-3	-2	-1	0	1	2	3
4. Difficulty in parenting your child	-3	-2	-1	0	1	2	3
5. Your ability to stop and calm down when upset with your child	-3	-2	-1	0	1	2	3
6. Amount of yelling at your child	-3	-2	-1	0	1	2	3
7. Amount of praise you give your child	-3	-2	-1	0	1	2	3
8. Your ability to clearly state what you want your child to do	-3	-2	-1	0	1	2	3
9. Your ability to follow through on instructions or directions that you have given your child	-3	-2	-1	0	1	2	3
10. Your ability to punish your child effectively when necessary	-3	-2	-1	0	1	2	3
11. How well you and your child get along with each other	-3	-2	-1	0	1	2	3

CP93-932E Printed in U.S.A. (01.WP)

## Eyberg Child Behavior Inventory Sample Questions

	How often does this occur with your child?							Is this a problem for you?	
	Never	Seldom	Sometimes	Often	Always			YES	NO
8. Does not obey house rules on own	1	2	3	4	5	6	7	YES	NO
9. Refuses to obey until threatened with punishment	1	2	3	4	5	6	7	YES	NO
10. Acts defiant when told to do something	1	2	3	4	5	6	7	YES	NO

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**Parent Program – Caregiver Knowledge and Efficacy**

1. When putting your child in time out you should give him/her something to do, such as a book to read or a word puzzle.

True                  False

2. You should remain calm when sending your child to time out.

True                  False

3. If your child does something bad at school, the store, etc., you should use time out as soon as you get home later that day.

True                  False

4. Raising your voice or using a stern voice will make time out work better.

True                  False

5. Before using time out, it is a good idea to first explain it to your child and practice it.

True                  False

6. When giving rewards in a point system, you should have some rewards available every day.

True                  False

7. Reinforcers should only be objects like money, stars, or points, not hugs, smiles, or verbal praises.

True                  False

8. Your child should earn the same amount of points for any behavior they do, regardless of how easy or hard the behavior is.

True                  False

9. At the end of each day, you should review the point chart with your child.

True            False

10. Points need to be given every time the desired behavior occurs, not just sometimes.

True            False

11. Whenever you give attention to any behavior, it will increase.

True            False

12. When you praise your child, tell him/her exactly what you are praising him/her for.

True            False

13. Identifying behaviors you want to improve is not a necessary step, just punish bad behaviors and reward good ones when you see them.

True            False

14. You should give praise whenever you remember something your child did earlier during the day or during the previous day.

True            False

15. A good definition of a behavior you want to increase tells who, what, where, and when.

True            False

16. I can get my child to listen to me when I ask him/her to do something.

True            False

17. If my child was doing something that I did not want him/her to do, I could get him/her to stop.

True            False

18. I do not feel I am good at getting my child to follow instructions.

True            False

19. I do not think that I can have an effect on how my child behaves.

True            False

20. A good deal of my child's behavior is out of my control.

True            False

21. Low levels of stress contribute to behavior problems in my child.

True            False

22. Behavior problems can be genetic (passed down from parents to children).

True            False

23. Children can learn how to be aggressive or misbehave from other children.

True            False

24. Exposure to violent media is not linked to childhood behavioral problems and aggression.

True            False

25. Children can learn to be aggressive when they receive harsh or inconsistent discipline.

True            False