Parent–Child Interaction Therapy: current perspectives

Corey C Lieneman
Laurel A Brabson
April Highlander
Nancy M Wallace
Cheryl B McNeil

Department of Psychology, West
Virginia University, Morgantown,
WV, USA

Abstract: Parent–Child Interaction Therapy (PCIT) is an empirically supported intervention originally developed to treat disruptive behavior problems in children between the ages of 2 and 7 years. Since its creation over 40 years ago, PCIT has been studied internationally with various populations and has been found to be an effective intervention for numerous behavioral and emotional issues. This article summarizes progress in the PCIT literature over the past decade (2006–2017) and outlines future directions for this important work. Recent PCIT research related to treatment effectiveness, treatment components, adaptations for specific populations (age groups, cultural groups, military families, individuals diagnosed with specific disorders, trauma survivors, and the hearing-impaired), format changes (group and home-based), teacher–child interaction training (TCIT), intensive PCIT (I-PCIT), treatment as prevention (for externalizing problems, child maltreatment, and developmental delays), and implementation are discussed.

Keywords: PCIT, adaptations, implementation, effectiveness

Introduction

Parent–Child Interaction Therapy (PCIT) is an evidence-based approach originally intended to treat disruptive behavior problems in children aged 2 to 7 years.¹ PCIT involves two phases, child-directed interaction (CDI) and parent-directed interaction (PDI), in which therapists instruct and coach caregivers in play therapy and operant conditioning skills. The goals of the CDI phase are to encourage warm, secure caregiver–child relationships. The foundational skills in this phase include praise, verbal reflection, imitation, behavioral description, and enjoyment and are often collectively referred to as the PRIDE skills.² The goal of the subsequent PDI phase is to increase child compliance and decrease disruptive behaviors.² To “master” CDI, a caregiver must use a number of positive interaction skills, while PDI mastery involves correctly following through with directly stated commands.² Once mastery in CDI is achieved, caregivers may advance to the PDI phase.² A comprehensive review of the specific skills taught in PCIT is beyond the scope of this paper; however, the reader may refer to McNeil and Hembree-Kigin² for a detailed overview. Through both phases of PCIT, clinicians typically observe sessions through a one-way mirror, communicating with caregivers by a bug-in-the-ear system. PCIT is unique because it treats caregivers and children as dyads and involves live coaching of parenting behaviors.³

In the more than 40 years since its creation by Dr. Sheila Eyberg at the Oregon Health Sciences University, PCIT has been studied worldwide in connection with a variety of populations and has been found to be an efficacious and effective intervention

Correspondence: Corey C Lieneman
Department of Psychology, West
Virginia University, Life Sciences Building
1222, 53 Campus Drive, PO Box 6040,
Morgantown, WV 26505-6040, USA
Tel +1 402 992 3508
Email ccl0009@mix.wvu.edu

for a myriad of emotional and behavioral difficulties. The purposes of this article are to summarize the advances documented in the PCIT literature over the past 10 years and to highlight future directions for this important work. This article covers recent PCIT research pertaining to the following topics: treatment effectiveness, treatment components, adaptations for different populations (age groups, cultural groups, military families, individuals diagnosed with specific disorders, trauma survivors, and the hearing-impaired), format changes (group and home-based), teacher–child interaction training (TCIT), intensive PCIT (I-PCIT), treatment as prevention (for externalizing problems, child maltreatment, and developmental delays), and implementation.

In the past decade, several influential changes have occurred in the world of PCIT. The formation of PCIT International, Inc., an organization committed to the fidelity of PCIT in research and practice, was announced at the ninth annual PCIT International Conference in 2009 (CB McNeil, West Virginia University, oral communication, November, 2016). PCIT International, Inc. provides training and certification in the model. New training certification requirements, which can be viewed online,⁴ were established in 2009. In line with the goal of maintaining fidelity to the PCIT model, the *PCIT Protocol Manual*⁵ was published in 2011 and is available in six languages. *The Dyadic Parent–Child Interaction Coding System (DPICS): Comprehensive Manual for Research and Training*, an integral tool used in PCIT to code different types of parent–child interactions, was released in its fourth edition in 2013 followed by the fourth edition of its *Clinical Manual* in 2014.^{6,7} DPICS updates reflect the accumulation of data from widespread research and clinical applications. In addition, *Parent–Child Interaction Therapy*,² the only book devoted entirely to PCIT, was released in its second edition in 2010. This new edition includes updated reviews of PCIT research, information about advances in cultural applications of PCIT, and current PCIT training regulations. The text also contains chapters describing adaptations of PCIT for infants, toddlers, older children, and siblings and describes ways in which PCIT may be applied to special populations (e.g., families with histories of abuse, separated parents, children with attention-deficit/hyperactivity disorder, severely aggressive children, and those with developmental disabilities).

Methods

A literature search was conducted through EBSCOhost using the following keywords: PCIT, parent–child interaction therapy, parent child interaction therapy, TCIT, and

teacher–child interaction therapy. The search span was limited to publication dates from 2006 to 2017. Dissertation abstracts were excluded. Subsequently, literature was sought through ILLiad, contact with PCIT experts, and reference lists of articles and chapters. Included resources had PCIT or TCIT as a major focus and were published in 2006 or later. Identified publications within these criteria were excluded if they were not in English, could not be obtained in their entirety, or were comprised mainly of basic descriptions of PCIT, which had already been covered by other included sources. Two reviewers independently categorized publications by major topic area based on common themes in the literature and met to confirm categorization.

Meta-analyses and reviews

Since 2006, dozens of meta-analyses and reviews of the PCIT literature have been published in scientific journals, books, and newsletters, in print and online.^{1,8,9} One meta-analysis of 12 PCIT studies demonstrated large effect sizes ($d=1.65$) for pre- to posttreatment reductions in externalizing problems for children with disruptive behavior disorders.¹⁰ Two separate research groups examined PCIT among other evidence-based treatments.^{11,12} One group described the evidence base for PCIT along with 24 other evidence-based and possibly efficacious disruptive behavior treatments.¹¹ The second group specifically compared PCIT with an evidence-based treatment, Triple P – Positive Parenting Program, in a meta-analysis of 24 studies.¹² Although both PCIT and Triple P resulted in child disruptive behavior and parenting problem decreases, PCIT demonstrated significantly larger effect sizes for reducing negative parent behaviors, negative child behaviors, and caregiver reports of child behavior problems than did most or all forms of Triple P.¹² Evidence of the efficacy of PCIT has been made available internationally as PCIT is now conducted and researched in 11 countries over 4 continents.^{4,13}

Treatment effectiveness

As the efficacy of PCIT has been well established,^{11,14} research over the past decade has focused on testing the effectiveness of PCIT within various community treatment settings. This substantive body of literature is summarized in Table 1. Several studies have demonstrated improvements in child behavior as well as increases in positive parenting skills and decreases in negative parenting skills for families receiving standard PCIT for disruptive child behaviors in community treatment settings in the US.^{15–18} Similar positive outcomes have been noted with PCIT delivered in child welfare

Table I Summary of PCIT effectiveness studies

Reference	N	Child gender	Setting	Study design	Follow-up time	Primary findings	Notes
Abrahamse et al (2015) ¹³⁹	45 families	58% male	Community mental health center in Amsterdam	RCT: PCIT or Family Creative Therapy	Posttreatment and 6-month follow-up	Significant reduction in ECBI intensity scores for PCIT group but not Family Creative Therapy group	Crossover between treatments complicated the intent-to-treat analysis
Bjørseth et al (2016) ³³	81 families	64% male	Child and adolescent mental health specialty clinics in Norway	RCT: PCIT or treatment as usual	6- and 18-month follow-up	ECBI intensity scores improved more for PCIT group ($d=0.64$) than the TAU group according to maternal report	No difference in ECBI scores for each group based on paternal report
Budd et al (2011) ¹⁴⁰	4 families, 5 children	100% male	Community mental health center in urban area in the US	Pre-post case studies	Posttreatment only	Reductions in ECBI intensity scores from the clinical range (pre) to below clinical (post) for all but one child who still demonstrated reductions but whose pretreatment scores were below the clinical cutoff	One family had two children who were both included in treatment
Danko et al (2016) ¹⁶	52 families	71% male	Community mental health center in urban area in the US	Pre-post	Posttreatment only	Significant reduction in ECBI intensity scores for ($d=2.30$)	
Foley et al (2016) ²⁸	44 families	66% male	Community outreach organization in the US	RCT: group PCIT or group treatment as usual	Posttreatment only	Greater reductions in ECBI scores for PCIT group than TAU group ($d=0.91$)	
Galanter et al (2012) ¹⁴¹	83 families	Not reported	In-home services delivered by community agency therapists in the US	Pre-post	Posttreatment only	Significant reduction in ECBI intensity scores for ($d=1.22$)	
Hakman et al (2009) ¹⁹	22 families	64% male	Child welfare agency in the US	Pre-post	Posttreatment only	Increases in positive parental responses and decreases in negative parental responses as measured by the DPICS	Focus was on parenting behavior rather than child behavior because this was a sample of families with histories of physical abuse
Keeshin et al (2015) ²⁷	8 mother-child dyads	Not reported	Domestic violence shelter in the US	Pre-post	Posttreatment only	Significant increases in positive verbalizations and decreases in negative verbalizations as measured by the DPICS	Half of the mothers spoke Spanish as their primary language and required the use of an interpreter. Most mothers had more than one child, although only children within the standard PCIT age range were included in treatment
Lanier et al (2014) ²⁰	120 families	64% male	Child welfare and community mental health agencies in the US	Pre-post	Follow-up ranged from 13 to 40 months	Rate of substantiated abuse/neglect reports following PCIT was 1.6%	No control group was included in the study, but other studies have reported recidivism rates ~50%

(Continued)

Table 1 (Continued)

Reference	N	Child gender	Setting	Study design	Follow-up time	Primary findings	Notes
Leung et al (2009) ³⁴	110 families	67% male	Hospital-based clinic in Hong Kong	RCT: PCIT or waitlist control	Posttreatment and 6-month follow-up	Significant reduction in ECBI scores from pre- to posttreatment ($d=1.59$) and through 6-month follow-up ($\eta^2=0.89$) for PCIT group but not control group	
Lyon et al (2010) ¹⁷	14 families	64% male	Community mental health center in underserved urban area in the US	Pre-post	Posttreatment only	Four families met standard PCIT completion criteria and showed reductions in ECBI scores. Noncompleters also showed reductions in ECBI scores but to a lesser extent	
Mersky et al (2016) ⁹⁸	102 foster families	Not reported	Foster homes in the US	RCT: brief PCIT, extended PCIT, waitlist control	Posttreatment only	Both PCIT groups demonstrated a reduction in behavior problems compared to waitlist control group	
Naik-Polan et al (2008) ²¹	4 mother-child dyads	63% male	Child welfare outpatient clinic in the US	Pre-post	Posttreatment only	Increases in positive parental responses and decreases in negative parental responses as measured on the DPICS	No data were collected on child behaviors
N'zi et al (2016) ³¹	14 families	50% male	Participants in a kinship care program in the US, services delivered in a local library by graduate student therapists	RCT: PCIT CDI only or waitlist control	Posttreatment and 3-month follow-up	Significant decreases in child externalizing problems as measured by the CBCL ($d=1.04$) for the PCIT group but not the waitlist control group	This intervention only included the CDI phase, not the full PCIT protocol
Pade et al (2006) ²⁵	73 families	70% male	Managed care company in the US	Pre-post	Posttreatment and 5–6-year follow-up ($n=23$)	Significant reduction in ECBI scores from pre- to posttreatment. 65% of the follow-up sample remained below the clinical cutoff at long-term follow-up.	Substantially modified version of PCIT was used in this study
Rait (2012) ³⁵	30 families	66% male	In-home sessions provided by paraprofessionals in the UK	Pre-post	Posttreatment and 2-month follow-up	Significant reduction in ECBI scores from pre- to both posttreatment and 2-month follow-up	Substantially modified version of PCIT was used in this study
Scudder et al (2014) ²⁶	71 incarcerated women	n/a	Female state correctional facility in the US	RCT: PCIT-based parenting class or standard parenting class	Posttreatment only	Participants in PCIT-based parenting class showed higher levels of positive attention and lower levels of negative attention in role play scenarios than participants in standard parenting class	This intervention was a PCIT-based parenting class

(Continued)

Table 1 (Continued)

Reference	N	Child gender	Setting	Study design	Follow-up time	Primary findings	Notes
Self-Brown et al (2012) ²³	83 families	Not reported	Child welfare agency in the US	Pre-post	Posttreatment only	Using benchmarking methods, community delivered PCIT was found to produce superior outcomes to a control benchmark but inferior outcomes to a gold-standard PCIT efficacy trial benchmark	
Timmer et al (2006) ³⁰	75 foster families, 98 nonabusive biological parent-child dyads	62% male	University-based outpatient clinic in the US	Group comparison	Posttreatment only	Significant reduction in ECBI scores from pre- to posttreatment for both foster parents and biological parents, with no difference between these groups	Higher levels of parenting stress in foster parents predicted treatment retention, whereas it predicted premature dropout for biological parents
Timmer et al (2010) ¹⁸	62 families with intimate partner violence, 67 families without intimate partner violence	67% male in sample A and 61% male in sample B	University-based outpatient clinic in the US	Group comparison	Posttreatment only	Significant reduction in ECBI scores from pre- to posttreatment for families with and without intimate partner violence, with no difference between these groups	
Ware et al (2008) ²⁴	5 families	60% male	In-home delivery of PCIT in the US	Pre-post	Posttreatment only	Increases in positive parental responses and decreases in negative parental responses as measured by the DPICS, reduction in ECBI scores from pre- to posttreatment.	

Abbreviations: CBCL, Child Behavior Checklist; CDI, Child-Directed Interaction; DPICS, *Dyadic Parent-Child Interaction Coding System*; ECBI, Eyberg Child Behavior Inventory; n/a, not applicable; PCIT, Parent-Child Interaction Therapy; RCT, randomized controlled trial; TAU, treatment as usual.

settings^{19–22} and with in-home delivery.^{23,24} More novel treatment settings for PCIT have included a time-limited modified version delivered in a managed care company,²⁵ a PCIT-based parenting program for incarcerated women,²⁶ PCIT delivered in a domestic violence shelter,²⁷ and group-based PCIT delivered by a community outreach agency.²⁸ Each of these studies noted similar decreases in child behavior problems and increases in positive parenting skills. It is interesting to note that several studies have also shown PCIT to be effective with nonparental caregivers such as foster parents^{29,30} and participants in a kinship care program.³¹

More recently, researchers have examined the extent to which PCIT can be effective in other countries and cultures. Despite major cultural differences, PCIT has been shown to have more favorable outcomes in terms of parenting practices

and child behavior improvements relative to treatment as usual in the Netherlands,³² Norway,³³ and Hong Kong.³⁴ One study also showed improvements from pre- to posttreatment in a community sample in the UK.³⁵ Of note, improvements in child behavior but not child compliance were observed in the Norwegian sample.³³ This finding highlights the importance of understanding cultural context, given that noncompliance can be seen as an expression of free will and independence in Norwegian culture and is not necessarily viewed as problematic.³³

This rich body of literature demonstrates how many populations stand to benefit from PCIT. Since the evidence base has been established regarding the efficacy of PCIT, it is promising that researchers are moving toward understanding the limits of PCIT in terms of both population and setting.³⁶

It is important to note that researchers studying PCIT in countries outside of the US tend to employ rigorous research designs (e.g., randomized controlled trials [RCTs] with typical treatment comparison groups), whereas researchers within the US tend to be more attentive to diverse and underserved populations while employing pre–post designs. Within the US, more researchers should consider conducting RCTs in community settings and using comparison groups rather than relying heavily on pre–post designs.

Treatment components

Although consensus in the literature supports the efficacy of PCIT and burgeoning research supports its effectiveness in community settings, researchers continue to seek detailed information about specific components of treatment. Homework is one such area of focus. Parental homework completion has been studied as a marker of engagement³⁷ and predictor of parent and child outcomes.³⁸ One investigation in a demographically diverse community mental health clinic found that treatment completers reported significantly more CDI homework completion than did those who dropped out of treatment prematurely. This study also showed that homework completion was positively correlated with treatment satisfaction.³⁷ Homework completion has also been linked to decreases in parenting stress, improvements in parenting skills, decreases in child behavior problems,³⁸ and reductions in the number of sessions needed to reach CDI mastery.³⁹

Another crucial component of PCIT, therapist–client communication, has been examined from a variety of angles. Mothers whose therapists communicated using constructive criticism were shown to use more positive and less negative parenting skills at posttreatment as compared with those mothers whose therapists used only positive or neutral communication styles.⁴¹ However, the high socioeconomic status of this study sample may limit generalizability of its findings. Motivational interviewing communication strategies have been successfully incorporated in PCIT⁴¹ with links to reductions in treatment ambivalence, increases in treatment retention,⁴⁰ and reductions in future reports of involvement with the child welfare system.⁴² Findings specifically regarding therapists' coaching revealed that in vivo coaching resulted in more positive parenting skills than did delayed feedback⁴³ and that remote coaching through an earpiece was preferred to in-room coaching.⁴⁴ A specialized coaching measure, the Therapist–Parent Interaction Coding System, was developed in 2014.⁴⁵ Using the Therapist–Parent Interaction Coding System, researchers were able to code the

range of coaching strategies used, relate therapists' feedback with parent skill level, and provide evidence that responsive rather than directive coaching predicted parenting behavior change between sessions.⁴⁵

Although PCIT follows a manualized protocol, standard and supplementary components have been studied to assess their utility in the treatment process. Researchers have directly examined the use of positive parenting skills within PCIT, confirming their necessity.⁴⁶ Combining the three skills required for mastery in CDI influenced on-task child behavior more than a single skill, questions, or nonverbal attention alone, and behavioral descriptions alone increased on-task child behavior more than questions.⁴⁶ Because PCIT involves the use of the DPICS, the necessity of its standard 5-minute warm-up segments has also been investigated. No differences in coding between observations in warm-ups and in typically coded segments were found;⁴⁷ however, other research demonstrated that parents engaged in more leading behaviors in warm-up than in typically coded segments of CDI but showed only subtle variations in skill differences between PDI warm-up and typically coded segments.⁴⁸ In support of the CDI phase of treatment itself, researchers found that CDI predicted improvements in disruptive behavior, parenting stress, and parenting practices.⁴⁹ These components were influenced mostly by daily hassles and maternal depression before treatment and by social support after treatment.⁴⁹ Finally, to address a supplementary component of PCIT, another study compared the use of treatment maintenance follow-up calls with the original PCIT therapists to no assessment-only follow-ups after standard PCIT treatment.⁵⁰ Contrary to hypotheses, results indicated that long-term outcomes (i.e., 1- and 2-years posttreatment) were no different between participants who received follow-up treatment calls and participants receiving assessment only calls.⁵⁰ Authors proposed that the lasting effects from standard PCIT for both groups and the inadvertent reinforcement provided to the assessment-only group may have contributed to this surprising result.⁵²

Population-specific adaptations

In recent years, treatment adaptations to better meet the needs of families from specific cultural groups, children outside of the typical PCIT age range, clients with comorbid disorders, trauma victims, individuals with disabilities, and those from unique family systems have emerged.⁵¹ While some of these adaptations do not uphold strict fidelity to PCIT, the extensive reach of PCIT International helps retain the defining features while expanding treatment to more individuals.⁴

Younger and older children

Developmentally appropriate treatment procedures and assessment measures have been created to extend the model of PCIT to younger children. The Infant Behavior Program maintains the defining features of the CDI component while placing emphasis on caregivers' use of nonverbal praise and repeating of children's vocalizations.⁵² These modifications, along with the exclusion of PDI, make the treatment appropriate for infants who are only beginning to develop effective communication and emotion regulation (ER) skills. Furthermore, infants who participated in the Infant Behavior Program produced significantly more unique and total vocal utterances than those in a control condition, supporting the frequent use of reflections as a mechanism for language development. PCIT for young toddlers includes shortened sessions, an emphasis on CDI skills, and information regarding PDI skills without formal PDI sessions.⁵³ The positive outcomes associated with PCIT (i.e., significant decreases in disruptive behaviors) are retained in PCIT for young toddlers.⁵³ While many adaptations of PCIT omit the component of PDI for toddler populations, some researchers suggest a modification of PDI.² In instances of child noncompliance, performing hand-over-hand guidance in place of time-out is recommended.² Parents are also advised to become familiar with child behavior patterns to identify early signs of frustration and prevent misbehavior.²

Because PRIDE skills such as reflections and behavioral descriptions target specific goals for younger children (e.g., language development and improving attention span), they may not be as appropriate for older children. When using PCIT with older children, it is recommended that parents paraphrase reflections and use more sophisticated vocabulary.² Adaptations of time-out procedures include extended periods of ignoring ("big ignore"), incentive charts, and restriction of privileges.² Each modification addresses the practical issue of physically placing larger children in time-out. A published case study incorporating these adaptations with an 8-year-old child provides an excellent reference for practitioners.⁵⁴

Families from specific cultural groups

Standard PCIT is effective across many cultures including Dutch, Norwegian, Chinese, and Puerto Rican populations;^{55,56} however, adaptations may enhance the effects of PCIT when cultural values, family systems, or parenting practices are not adequately addressed within the standard PCIT model. Culturally sensitive versions of PCIT include using translated materials (e.g., homework sheets and assessments),

addressing cultural values within treatment, and modifying the treatment model.⁵¹

The foundational session duration, parent verbalizations, and skill usage of standard PCIT may not be compatible with certain cultural norms. In an adaptation of PCIT for American Indians and Alaska Natives, coding times were extended to accommodate the slower cadence of speech in these populations.⁵⁷ Rules regarding the use of labeled and unlabeled praises have also been examined for these groups. American Indian and Native Alaskan cultures often praise children by comparing them to their elders and citing family member approval.⁵⁷ Although these forms of praise are avoided in standard PCIT, families may be more comfortable using their skills if they coincide with their cultural values.⁵⁷ In collectivist cultures, frequent praise may be viewed as an unusual approach to parenting.³⁴ In a sample of Chinese families, praise was found to be the most difficult DPICS criterion for caregivers to master.³⁴ Some researchers suggest that clinicians should empathize with caregivers' concerns regarding praise, emphasize the importance of using praise, and encourage more indirect praises to combat this barrier in treatment.³⁴

Certain cultural values or ideologies may enhance or impede the positive outcomes associated with PCIT. Families from cultures that value familism and include multiple family members in childrearing may benefit from including extended family members in PCIT.⁵⁶ For example, clinicians may choose to include individuals other than parents who have significant roles in childcare when working with Appalachian or Latino families.⁵⁶ The *Guiando a Niños Activos* (Guiding Active Children) program is an adaptation of PCIT designed to address cultural aspects of Mexican American families.⁵⁸ In this model, clinicians discuss cultural values and beliefs with families before beginning treatment to assess the potential impact these may have on treatment.⁵⁹ The Māori population of New Zealand prioritizes the use of nonverbal communication,⁵⁶ a practice that directly conflicts with the encouragement of frequent parent verbalizations used in standard PCIT. This is an important cultural aspect for clinicians to consider when coaching Māori families to reach mastery criteria.

Cultural sensitivity in PCIT includes understanding cultural beliefs and values as well as environmental and situational characteristics that may be associated with some families. For many families, geographical isolation, poverty, and access to resources may serve as barriers to treatment. These families may benefit from the use of in-home treatment, internet training, or mobile therapy units.⁵⁶

Military families

Over 2 million children in the US have experienced parental deployment to Iraq and Afghanistan.⁶⁰ Of these children, 53% are younger than 7 years, the maximum age treated with standard PCIT.⁶⁰ PCIT is effective in strengthening caregiver–child relationships, which may be relevant for families readjusting after deployment.⁶¹ While research in this specific area is still being developed, several recommendations have been made for treating military families with PCIT. Treatment may need to be modified to accommodate caregivers with injuries or disabilities who are unable to perform activities such as playing on the floor or escorting a child to time-out.⁶¹ Parental mental health may impact treatment progression and is of specific concern for veteran populations.^{60,61} Parental screening measures should be used to assess the appropriateness of PCIT for each family.⁶³ While individuals with psychological disorders experience positive outcomes with PCIT, they may need adaptations including more direct coaching and more frequent at-home practice sessions.⁶¹ For example, individuals who are diagnosed with posttraumatic stress disorder often experience decreases in emotional responding, which may impede their abilities to produce the levels of enthusiasm required in PCIT.⁶¹ Therapists may need to address this by coaching parents in the behavioral aspects of enthusiasm while demonstrating this skill for them thoroughly.⁶¹

Children and caregivers with additional diagnoses

PCIT has been adapted to address various internalizing and externalizing symptoms associated with specific disorders. PCIT-Emotional Development was created for children with depression and has been extended to treat children with bipolar disorder.^{62–64} This model emphasizes caregivers' abilities to understand their children's emotions while teaching them to regulate and address their feelings. Researchers compared treatment outcomes between PCIT-Emotional Development and a control condition, Developmental Education and Parenting Intervention. Developmental Education and Parenting Intervention included a didactic format but replaced the traditional components of PCIT with education sessions where parents were given information regarding child development and wellness with an emphasis on social and emotional development.^{62,65} Compared with Developmental Education and Parenting Intervention, PCIT-Emotional Development is associated with greater reductions in depression scores for both children and parents.⁶² It is important to note that

while PCIT-Emotional Development has been used with children diagnosed with bipolar disorder, there is limited research in this area.

To address symptoms of hyperactivity and impulsivity in children with attention-deficit/hyperactivity disorder, researchers have further adapted PCIT-Emotional Development to include PCIT with Emotion Coaching.⁶⁴ PCIT with Emotion Coaching emphasizes parental skills such as labeling emotions and praising effective ER to help children decrease impulsive behaviors associated with emotional dysregulation.⁶⁴

PCIT's foundations in attachment and learning theories make it appropriate for families of children with anxiety disorders; however, adaptations have been developed to specifically address children's brave behaviors. Bravery-Directed Interaction, a third component of PCIT, is used to help families combat children's symptoms of separation anxiety disorder with teaching and coaching sessions similar to PCIT's standard components.^{62,66} During Bravery-Directed Interaction, therapists coach parents in ways to use their skills to encourage children's brave behaviors directly related to Separation Anxiety Disorder. PCIT with Bravery-Directed Interaction has been shown to be effective in reducing symptoms of Separation Anxiety Disorder below diagnostic criteria.^{62,66} Coaching Approach Behavior and Leading by Modeling (CALM) addresses symptoms of child anxiety by incorporating exposure therapy into sessions.^{62,67} Parents are trained in the traditional PCIT model in addition to the CALM model, which includes teaching caregivers strategies for guiding their children through anxiety provoking situations.⁶⁷

Recently, researchers have begun to investigate the efficacy of PCIT in treating children diagnosed with autism spectrum disorder.^{68,69} A summary of these studies can be found in Table 2. While there are currently no standard adaptations for autism spectrum disorder, case studies demonstrate several changes that make PCIT compatible with various levels of social and intellectual functioning.⁷⁰ Caregivers of children with autism spectrum disorder may need to alter their use of PRIDE skills to accommodate their child's developmental ability. One case study adapted criteria for using reflections by allowing parents to reflect any speech-related sounds that showed intent for appropriate communication.⁷⁰ Verbal prompts, models, and physical guides are adaptations of the PDI component and increase the likelihood of compliance for children with autism spectrum disorder.⁷⁰ These changes help prevent noncompliance as a result of receptive language difficulties.⁷⁰ A number of single case designs have demonstrated positive outcomes

Table 2 Summary of PCIT with ASD studies

Reference	Child gender	Diagnosis	Study design	Follow-up time	Primary findings	Adaptations
Agazzi et al (2013) ¹³⁷	1 (male)	Autism spectrum disorder	Case study	3-month follow-up	Increased child compliance and decreased ECBI scores	None reported
Armstrong et al (2013) ⁷⁵	1 (male)	Asperger's disorder	Case study	Posttreatment and 3-month follow-up	ECBI scores decreased to nonclinical range	None reported
Armstrong et al (2015) ⁷⁶	1 (female)	Autism spectrum disorder, intellectual disabilities, comorbid epilepsy	Case study	Posttreatment and 5-month follow-up	ECBI scores decreased to nonclinical range	Visual supports and personalized social story to explain the treatment to child
Ginn et al (2017) ¹³⁸	30 (80% male)	Autism spectrum disorder	RCT	Posttreatment and 6-week follow-up	ECBI Intensity scores were lower in the treatment group ($p<0.001$). Social awareness scores were significantly higher in the treatment group ($d=1.03$)	Treatment delivered in eight CDI training sessions (no additional CDI sessions and no PDI sessions)
Hatamzadeh et al (2010) ⁷⁴	4 (100% male)	Autism spectrum disorder	Pre-post, single case	Posttreatment, 2-, and 4-weeks follow-up	ECBI scores decreased.	None reported
Lesack et al (2014) ⁷⁰	1 (male)	Autism spectrum disorder	Case study	Posttreatment only	ECBI scores decreased to subclinical range	Adapted criteria for reflections, specialized teaching sessions for child in PDI, shortened time-outs
Masse et al (2016) ⁷²	3 (100% male)	Autism spectrum disorder	Nonconcurrent multiple staggered baseline	One, 10 weeks ($n=1$), and 12 weeks ($n=2$) follow-up	ECBI scores decreased to nonclinical range	Implemented in client's home, 1-hr sessions twice a week
Solomon et al (2008) ⁷³	19 (100% male)	Autism spectrum disorder	Matched waitlist control group	Posttreatment only	ECBI Problem scores significantly decreased ($p=0.15$). ECBI intensity scores decreased to nonclinical range	Avoidance of perseverative speech, redirected isolating, or controlling behavior during CDI
Hansen et al (2016) ⁶⁸	2 (100% male)	Autism spectrum disorder	A-B within-subjects	Posttreatment only	Children's total vocalizations increased	Implemented to increase child vocalizations
Zlomke et al (2017) ⁶⁹	17 (82.4% male)	Primary diagnosis of autism spectrum disorder	Single group	Posttreatment only	ECBI intensity ($d=2.45$) and ECBI problem ($d=1.67$) scores significantly decreased	Adapted mastery criteria (10 labeled praises, 20 combined reflections, and behavioral descriptions)

Abbreviations: CDI, Child-Directed Interaction; ECBI, Eyberg Child Behavior Inventory; PDI, Parent-Directed Interaction; RCT, randomized controlled trial.

for PCIT delivered in community clinic settings for families of children on the autism spectrum.^{15,71–75} Similar positive outcomes were found in a study that used home-based PCIT using a single-subject design for three children with high-functioning autism spectrum disorder.⁷⁶

Caregiver-related treatment adaptations may be applicable when caregivers are experiencing mental health symptoms that impede their abilities to use effective, positive parenting skills.^{61,77,78} One study found that caregivers with attention-deficit/hyperactivity disorder were able to significantly decrease their use of commands when they took effective

doses of medications.⁷⁷ These results suggest that treating parental disorders may aid in caregivers' abilities to participate in PCIT. Caregivers with intellectual disabilities may benefit from minor adaptations in the model including simplified coaching instructions and single skill practice sessions.⁷⁸ Increasing treatment frequency may help caregivers with intellectual disabilities learn and maintain skills more effectively.⁷⁸

Families with histories of maltreatment

The risk for abusive parenting practices is highly correlated ($r=0.31$) with child disruptive behaviors.⁷⁹ Standard PCIT

helps prevent child physical abuse by targeting the treatment of disruptive behaviors while teaching parents effective discipline practices.⁴² Traditionally, PCIT treatment for abusive families shifts the focus of services from child behavior change to caregiver behavior change.^{30,42} One study found that in a population of abusive parents, negative parental reactions were common despite the lack of child misbehavior.²³ However, PCIT produced rapid changes in parenting practices for this sample, similar to those experienced by nonabusive parents.²³ Currently, research supports the use of motivational interviewing principles in addition to standard PCIT for treating abusive families.⁴² This treatment combination decreases recidivism in the child welfare sector compared with treatment as usual.⁴²

The hearing-impaired

PCIT is a highly verbal intervention and requires constant communication between therapists and caregivers.⁴³ While treatment may be effective for deaf and hard of hearing families,⁸⁰ it requires several modifications. A case study involving a hearing-impaired caregiver and child provides examples of treatment modifications that produced significant decreases in the child's disruptive behaviors. Adaptations to PCIT included teaching an interpreter the principles of PCIT, using Signing Exact English, and visually counting before implementing the time-out procedure.⁸⁰ This treatment model produced increases in positive parenting practices and parent-child communication and decreases in child behavior problems across environments (e.g., home and school).⁸⁰ While there is a dearth of knowledge in this area, additional adaptations are suggested for future research including using fluent interpreters who are certified in PCIT.⁸⁰

Format-based adaptations

Several format-based adaptations have expanded the PCIT literature including group-,^{26,81–83} home-,^{24,84–86} and school-based approaches,^{87–90} as well as short-term, intensive models.⁹¹

Group PCIT

Although PCIT is typically delivered in outpatient clinic-based settings with individual families, research has demonstrated positive outcomes when the model is applied in a group-based format. Notably, when researchers compared the use of individual PCIT to group PCIT, significant improvements were noted in child conduct problems, parenting stress, and children's adaptive functioning in both formats.⁸³ Such groups have included families of predominantly low socioeconomic backgrounds in a community-based setting,⁸²

women in a correctional facility,^{26,29} and families with a history of child abuse or at risk of child maltreatment.²⁸ In addition to such lack of outcome differences between formats, a group treatment context may be more cost effective and foster a supportive community between participants.

Home-based PCIT

Given the high attrition rates often cited as a primary weakness of the outpatient, clinic-based PCIT model,^{92,93} researchers have begun to explore home-based delivery methods to reach a broader scope of children and families.^{24,84–86} Advantages such as twice weekly sessions, generalization of skills to the home, and elimination of transportation barriers likely outweigh disadvantages like home-based distractions and have contributed to the early success of this model. Results have indicated decreased child disruptive behavior problems on the Eyberg Child Behavior Inventory (ECBI) at posttreatment.²⁴ High rates (100%) of child compliance were also achieved at posttreatment, which continued to persist at follow-up. Modifications to standard PCIT protocol have included an in-room coaching model and treatment conducted by dual therapists. Further studies have applied an in-home model to 12–15-month-old infants⁸⁴ with externalizing behavior problems. Results indicated high rates of clinically significant infant behavior change as well as caregiver intervention satisfaction. Most recently, the largest scale implementation of in-home PCIT occurred across the state of Delaware, demonstrating the wide-spread impact of this model with impressive results.⁸⁵

Teacher-Child Interaction Training (TCIT)

TCIT was developed early on as an adaptation of PCIT for the classroom environment. Teachers involved in TCIT are trained in the foundational PCIT principles and skills, often in a group format. Skills are initially practiced with individual children before moving on to application with small groups, and finally, the classroom setting.^{88,90,94} During the CDI phase, teachers are taught to implement PRIDE skills while attempting to reduce, rather than eliminate, commands and questions, given the necessity of such verbalizations in the classroom environment. During the discipline phase of treatment, entitled Teacher-Directed Interaction, teachers learn to use effective commands and a variety of methods with which to follow through including Sit and Watch, a time-out-like procedure used in response to a variety of disruptive behaviors (e.g., defiance, verbal classroom disruption, throwing

toys, and fighting).^{90,95} Unlike in PCIT, TCIT coaches remain in-room with teachers, and feedback is provided using both verbal and written methods.⁹⁰ Results of multiple examinations of TCIT implementation demonstrate significantly increased rates of positive teacher statements (e.g., praise) and decreased critical statements.^{90,95,96} Results also indicate high rates of teacher satisfaction across both phases of the model^{87,90} as well as decreased likelihood of attention toward children's negative attention seeking and misbehavior, and decreased stress regarding students' negative behaviors.⁸⁸ Finally, increases in children's protective factor scores, a scale of the Devereux Early Childhood Assessment⁹⁷ used to assess children's social-emotional strengths following TCIT, have also been found.⁸⁹ Limitations of the model include a lack of generalizability and the time-consuming, costly nature of teacher training and implementation.

Intensive PCIT (I-PCIT)

A typical course of clinic-based PCIT is about 3 months in length.² Given the time-intensive nature of the intervention, researchers have studied the feasibility of a brief, intensive version.⁹¹ Modeled from PCIT, I-PCIT was initially applied to children with clinically significant levels of externalizing behavior problems. Following initial assessment, mother-child dyads attended 90-minute sessions each day for 5 days across a 2-week period. A PDI teach session occurred on the first day of the second week of treatment. The total treatment course lasted 10 sessions. Results indicated that following treatment, mothers implemented higher levels of nondirective positive parenting skills (e.g., labeled praise and behavior descriptions) and lower levels of negative statements. Mothers also reported greater use of appropriate discipline strategies (e.g., clear consequences, remaining calm during discipline implementation). Mothers also noted decreased levels of parenting stress. Subsequently, children's compliance improved from 50% at baseline to 86% just following treatment. Such compliance levels maintained at 80% at 4 months postintervention. Finally, the authors noted larger effect sizes at the posttreatment and 3–4-month follow-up assessments compared to effect sizes found in typical PCIT. Despite limitations such as a small, nonrandomized, relatively homogenous sample, these impressive results indicate the feasibility of a brief, intensive course of PCIT to assist in combatting the commonly cited weakness of high attrition rates⁹² in typical clinic-based PCIT. Subsequent research has demonstrated the positive effects of short-term, 2-day PCIT training workshops on a group of foster parents. Compared to a waitlist control group, both groups that received the

intensive training course demonstrated significant decreases in behavior problem scores.⁹⁸

PCIT as a preventative intervention

Recent efforts have been devoted to examining the use of PCIT as a preventative intervention. While traditionally treatments address problems at clinical or non-normative levels, preventative interventions focus on ameliorating subclinical concerns or treating at-risk individuals. This line of research has focused on several areas, including the prevention of problematic externalizing behaviors,^{85,100–102} child maltreatment,^{20,42,102,103} and developmental/language delays.^{104–108}

Prevention of externalizing behaviors

Given that externalizing behavior problems are the most common referral reason for child mental health services¹⁰⁹ and are associated with poor long-term outcomes,^{110,111} much can be gained from improving preventative services for externalizing behavior problems. Aside from improving the trajectories of millions of children, prevention programs could result in substantial savings in public expenditures on treatment each year.¹¹² Additionally, parents in some communities recognize the need for prevention programs and hold favorable attitudes toward PCIT principles and skills.¹⁰¹ As such, researchers have examined PCIT as a preventative intervention using several different approaches.

In one such study, two abbreviated versions of PCIT implemented in primary care settings resulted in high rates of parental satisfaction and reductions in child externalizing behaviors.¹¹³ The two versions included PCIT-Anticipatory Guidance, in which parents were mailed written materials about PCIT skills and how to implement them, and Primary Care PCIT, a brief group version of PCIT consisting of two CDI sessions and two PDI sessions. There were no significant differences in outcomes between the two versions, indicating that both self-directed learning and face-to-face interventions have the potential to bring subclinical behavior problems into more normative and acceptable limits.¹¹³ Similarly, positive outcomes were noted using a home-based version of PCIT for infants (12 and 15 months) at risk for behavior problems.⁸⁴ Although limited by a small sample size ($N=6$), results indicated significant improvements in infant behavior as well as high rates of parent satisfaction.⁸⁴

Researchers have also found promising outcomes when taking more universal approaches to prevention, in contrast to identifying at-risk families or children. For instance, a parenting course based on PCIT principles resulted in

improved parenting knowledge in a sample of nonparents (aged 19–23 years).¹⁰⁰ Additionally, a PCIT-based training of preschool and kindergarten teachers demonstrated increases in positive skills and decreases in negative skills.⁹⁹ Although these studies did not directly assess child outcomes, these universal applications have the potential to preempt externalizing behaviors in far greater numbers than standard PCIT.

Prevention of child maltreatment

Some researchers have focused on the possibility of using PCIT to prevent child maltreatment, given its success as a treatment for this population.¹⁴ Two such studies have demonstrated improved parent–child interactions, greater use of positive parenting behaviors, and a reduced likelihood of maltreatment recidivism following PCIT treatment for families with a history of child maltreatment.^{42,103} Similar results have been found in children with a history of maltreatment and their adoptive families, rather than offending families.¹⁰² Since the children were being adopted into nonoffending homes, they were considered high risk for future maltreatment given their histories, not because of their adoptive home environments. Significant improvements in child behavior, increases in positive caregiver communication, and decreases in negative communication, as well as reduced caregiver stress, were noted.¹⁰² One additional study found similar positive results in at-risk families with and without maltreatment histories, although history of maltreatment was the strongest predictor of recidivism.²⁰

Prevention of language and developmental delays

A substantial body of literature exists demonstrating a strong association between externalizing behavior problems and language deficits in children.¹⁰⁸ It has been hypothesized that the skills taught to parents in PCIT should lead to improvements in both behavior problems and language deficits.¹⁰⁸ Specifically, PCIT teaches parents to use positive communication skills throughout the day, providing a language-rich environment.¹⁰⁸ Additionally, the specific skills used by parents (i.e., reflections, descriptions, and labeled praises) place emphasis and attention on the child. Not only do these skills model appropriate verbalizations, but they also help the child feel important and subsequently improve self-esteem. This increase in self-esteem may result in increased frequency of appropriate verbalizations.¹⁰⁸

Several studies have found support for this hypothesis and have shown that PCIT can result in increased frequency

and type of verbalizations in both infants and children at risk for language or developmental delays.^{104,105} One multi-single case study has also provided promising evidence that PCIT can reduce the frequency of stuttering.¹⁰⁹ Consistent with the hypothesis that parenting skills are the driving factor behind these improvements,¹⁰⁸ preliminary evidence has shown that CDI skills (i.e., reflections, descriptions, and labeled praises) mediate the relationship between PCIT treatment and improvements in both language and behavior.¹⁰⁶

Implementation

As PCIT has been shown to be both therapeutically effective¹¹ and cost effective,¹¹⁴ focus has shifted more recently to large-scale implementation initiatives. Simply disseminating knowledge about an efficacious and effective intervention through peer-reviewed studies has been insufficient in promoting uptake into daily clinical practice.¹¹⁵ Successful implementation requires the consideration of a variety of factors, and researchers have recently been more interested in such factors.

Several large-scale PCIT implementation efforts have taken place recently, and researchers have published information about their implementation process in order to facilitate collaboration.^{22,85,116–118} Common recommendations across these initiatives included careful consideration of the community needs, matching of the treatment to be implemented with the identified needs, ongoing training and consultation, continuous evaluation, and upfront planning for long-term funding and sustainability.^{22,85,116,118} Common challenges to implementation included high rates of provider attrition, insufficient families, and difficulties maintaining clients.^{22,85,116,117}

To date, most empirical studies on PCIT implementation have focused primarily on provider training. One earlier study identified a crucial difference between the training of graduate-level student therapists in university settings and the training of community providers.¹¹⁹ Specifically, in the university training model, student therapists typically receive live, in-person coaching while they coach families (much like the PCIT model), whereas community trainers receive phone consultations. In a pilot study of community providers who received remote real-time training (much like Skype coaching), providers indicated that they were more comfortable with traditional phone consultation but found remote real-time training to be more helpful and ultimately preferred it to the traditional phone consultation.¹¹⁹ A more recent study found that live video coaching resulted in small but meaningful improvements in client outcomes compared with traditional phone consultation.¹²⁰

Other research has examined trainee and organizational factors that influence the effectiveness of trainings in PCIT. For instance, positive provider attitudes toward evidence-based treatments are associated with greater engagement in training, greater use of consultation, and greater satisfaction with the training.¹²¹ Additionally, clinicians who were of a psychodynamic orientation or mandated by agency administrators to attend trainings were found to be less invested in training and slower to master skills.¹²² In a more recent study, trainees rated the PCIT training content as valuable and were largely satisfied with training but cited the high cost and issues with agency reimbursement as potential barriers.¹²³

Despite knowledge of some factors that might influence training engagement and outcomes, there is still a dearth of knowledge regarding the most effective training method. In an early study, researchers found that review of a treatment manual produced improvements, but not mastery, in clinician knowledge and skill.¹²⁴ Both didactic (e.g., discussing PCIT skills, reviewing client videotapes as a group) and experiential (e.g., role-plays, individually coding client videotapes) training resulted in added benefits above and beyond the manual review.¹²⁴ More recently, researchers have interviewed 23 doctoral-level PCIT experts to understand their perspectives on critical components to PCIT training.¹²⁵ There was consensus among experts regarding the importance of pre-training preparation and trainee selection. A multiday workshop with role-plays and video reviews was most commonly described as the ideal training format. In contrast, there was greater variability in responses regarding the process of the workshops, the use of case reviews, the method of teaching the time-out procedure, and the use of consultation/follow-up.¹²⁵ Current research is building on these earlier studies in an RCT comparing three different training approaches within a state-wide implementation trial of PCIT.¹¹⁸

Future directions

Harnessing technology

Advances in technology have impacted PCIT over the past decade, including the use of web-based videosharing for new trainee supervision,¹²⁶ published didactic training video segments,¹²⁷ and remote live video coaching of new therapists.^{119,120} Several RCTs comparing internet-based PCIT with standard PCIT and waitlist conditions are currently being conducted.¹²⁸ Another ongoing PCIT study employs the use of audio and video recording evidence of homework completion, affording therapists the ability to provide additional feedback for families on their at-home practice. Preliminary

qualitative feedback suggests that fewer sessions are needed to reach CDI skill mastery for these participants than for those self-reporting homework completion as usual. It is likely that future integration of technological aids such as internet telemedicine will improve the efficiency and reach of PCIT, but more in-depth, future research is needed.^{119,128}

Improving implementation

Research has shown that training is critical to the successful implementation of PCIT. Unfortunately, little is known about which training method produces greatest gains in clinician knowledge and skill, cost-effectiveness, or long-term sustainability. Results of the ongoing RCT will help answer these questions.¹¹⁸ In addition, there is a relative paucity of research investigating the sustainability of PCIT programs after the initial implementation effort. Given the importance of increasing access to PCIT services, it is crucial that future research addresses these lingering implementation questions.

Reducing attrition

For PCIT to benefit more children and families, the rate of attrition inherent in parent-training programs must be addressed. Several studies of attrition in PCIT have identified the following potential risk factors: younger child age, maternal internalizing problems,³² maladaptive personality characteristics, single-parent status, removal of child from home, less caregiver education,¹³ lower socioeconomic status,^{93,129} more maternal negative talk, less maternal praise,¹²⁹ lower baseline global assessment of functioning score,⁹³ younger caregiver age,^{93,130} waitlist assignment, inappropriate maternal behavior, and higher caregiver distress.^{129,130} Barriers to treatment such as transportation and childcare difficulties are also frequently cited.³² Aimed at addressing attrition, one study used motivational interviewing in conjunction with PCIT and noted improved retention rates with low to moderately motivated caregivers compared with control groups.⁴⁰ It is important to note that this sample was composed only of families involved with the child welfare system. Looking to the future, these and other findings, such as decreased treatment length using I-PCIT⁸⁷ or parent training workshops⁹⁸ will be influential in developing strategies aimed at reducing attrition. It is important that applications such as home-based PCIT be informed by attrition research so that PCIT is accessible to families who need it most.

Examining ER connections

Study of the connection between PCIT and ER is only beginning. Because ER is an important transdiagnostic process,¹³¹

it is crucial to understand the way PCIT may benefit child and caregiver ER. Research at Florida International University has explored this link by measuring respiratory sinus arrhythmia, a marker of cardiac vagal tone shown to indicate capacity for ER in children. Two studies demonstrated greater decreases in disruptive behavior through PCIT treatment for children with lower baseline respiratory sinus arrhythmia (i.e., lower capacity for ER).^{132,133} Positive PCIT parenting skills were also associated with improved child respiratory sinus arrhythmia posttreatment.¹³⁴ Several adaptations (e.g., The CALM Program,¹³⁵ PCIT-Emotional Development,¹³⁶ and PCIT with emotion coaching⁶⁴) described within this chapter target ER development in children. Future research examining ER and PCIT with and without emotion-related adaptations could inform this area, expanding the possible applications of PCIT.

Limitations

This literature review is limited in its level of detail. With so many studies of PCIT spanning the past decade, it is impossible to describe many important aspects of this research within a single article. In addition, several shortcomings common across much of behavioral health outcome research emerged in the contemporary study of PCIT. Many studies were conducted on small samples, primarily involved mothers, had little demographic diversity, and included few long-term follow-ups.

Conclusion

As its efficacy has been well established, a large proportion of PCIT research over the past decade has focused on examining and improving the effectiveness of PCIT in community settings and targeting a wider range of families dealing with complex personal and contextual challenges. It is hoped that future endeavors will continue toward these ends while also expanding and closely studying large-scale implementation efforts, decreasing attrition, enhancing ER skills, and incorporating technology. The current literature review exemplifies how PCIT as a field has matured and changed within the past 10 years. Yet PCIT's overarching goal of "improving the quality of the parent-child relationship and changing parent-child interaction patterns" remains constant⁴ as researchers and clinicians take advantage of the scientific process to inform the continued refinement of this highly effective treatment approach.

Disclosure

The authors report no conflicts of interest in this work.

References

1. Funderburk BW, Eyberg SM. Parent-Child Interaction Therapy. In: Norcross JC, VandenBos GR, Freedheim DK, editors. *History of Psychotherapy: Continuity and Change*. 2nd ed. Washington, DC: American Psychological Association; 2011: 415–420.
2. McNeil CB, Hembree-Kigin TL. *Parent-Child Interaction Therapy*. 2nd ed. New York, NY: Springer Science & Business Media; 2010.
3. McNeil CB, Norman M, Wallace N. Parent-Child Interaction Therapy. *Acparian*. 2013;7:9–11.
4. PCIT International Inc [webpage on the Internet]. Get certified by PCIT International. Available from: <http://www.pcit.org/pcit-certification.html>. Accessed December 5, 2016.
5. Eyberg SM, Funderburk BW. *Parent-Child Interaction Therapy Protocol*. Gainesville, FL: PCIT International; 2011.
6. Eyberg SM, Nelson MM, Ginn NC, Bhuiyan N, Boggs SR. *Dyadic Parent-Child Interaction Coding System (DPICS): Comprehensive Manual for Research and Training*. 4th ed. Gainesville, FL: PCIT International; 2013.
7. Eyberg SM, Chase RM, Fernandez MA, Nelson MM. *Dyadic Parent-Child Interaction Coding System (DPICS) Clinical Manual*. 4th ed. Gainesville, FL: PCIT International; 2014.
8. Costello AH, Chengappa K, Stokes JO, Tempel AB, McNeil CB. Parent-Child Interaction Therapy for oppositional behavior in children: Integration of child-directed play therapy and behavior management training for parents. In: Drewes AA, Bratton SC, Schaefer CE, editors. *Integrative Play Therapy*. Hoboken, NJ: John Wiley & Sons, Inc.; 2011:39–59.
9. Eyberg SM, Bussing R. Parent-Child Interaction Therapy for preschool children with conduct problems. In: Murrihy RC, Kidman AD, Ollendick TH, editors. *Clinical Handbook of Assessing and Treating Conduct Problems in Youth*. New York, NY: Springer Science & Business Media; 2010:139–162.
10. Ward MA, Theule J, Cheung K. Parent-Child Interaction Therapy for child disruptive behaviour disorders: a meta-analysis. *Child Youth Care Forum*. 2016;45:675–690.
11. Eyberg S, Nelson M, Boggs S. Evidence-based psychosocial treatments for children and adolescents with disruptive behavior. *J Clin Child Adolesc Psychol*. 2008;37(1):215.
12. Thomas R, Zimmer-Gembeck MJ. Behavioral outcomes of Parent-Child Interaction Therapy and Triple P – Positive Parenting Program: a review and meta-analysis. *J Abnorm Child Psychol*. 2007;35(3):475–495.
13. Chen YC, Fortson BL. Predictors of treatment attrition and treatment length in Parent-Child Interaction Therapy in Taiwanese families. *Child Youth Serv Rev*. 2015;59:28–37.
14. Chadwick Center for Children and Families. *Closing the Quality Chasm in Child Abuse Treatment: Identifying and Disseminating Best Practices*. San Diego, CA: Chadwick Center for Children and Families; 2004.
15. Budd KS, Hella B, Bae H, Meyerson DA, Watkin SC. Delivering Parent-Child Interaction Therapy in an urban community clinic. *Cogn Behav Pract*. 2011;18(4):502–514.
16. Danko CM, Garbacz LL, Budd KS. Outcomes of Parent-Child Interaction Therapy in an urban community clinic: a comparison of treatment completers and dropouts. *Child Youth Serv Rev*. 2016;60:42–51.
17. Lyon A, Budd K. A community mental health implementation of Parent-Child Interaction Therapy. *J Child Fam Stud*. 2010;19(5):654–668.
18. Timmer SG, Ware LM, Urquiza AJ, Zebell NM. The effectiveness of Parent-Child Interaction Therapy for victims of interparental violence. *Violence Vict*. 2010;25(4):486–503.
19. Hakman M, Chaffin M, Funderburk B, Silovsky JF. Change trajectories for parent-child interaction sequences during Parent-Child Interaction Therapy for child physical abuse. *Child Abuse Negl*. 2009;33(7):461–470.
20. Lanier P, Kohl PL, Benz J, Swinger D, Drake B. Preventing maltreatment with a community-based implementation of Parent-Child Interaction Therapy. *J Child Fam Stud*. 2014;23(2):449–460.

21. Naik-Polan AT, Budd KS. Stimulus generalization of parenting skills during Parent-Child Interaction Therapy. *J Early Intensive Behav Interv.* 2008;5(3):71–92.
22. Self-Brown S, Whitaker D, Berliner L, Kolko D. Disseminating child maltreatment interventions: research on implementing evidence-based programs. *Child Maltreat.* 2012;17(1):5–10.
23. Self-Brown S, Valente JR, Wild RC, et al. Utilizing benchmarking to study the effectiveness of Parent-Child Interaction Therapy implemented in a community setting. *J Child Fam Stud.* 2012;21(6):1041–1049.
24. Ware LM, McNeil CB, Masse J, Stevens S. Efficacy of in-home Parent-Child Interaction Therapy. *Child Fam Behav Ther.* 2008;30(2):99–126.
25. Pade H, Taube DO, Aalborg AE, Reiser PJ. An immediate and long-term study of temperament and Parent-Child Interaction Therapy based community program for preschoolers with behavior problems. *Child Fam Behav Ther.* 2006;28(3):1–28.
26. Scudder AT, McNeil CB, Chengappa K, Costello AH. Evaluation of an existing parenting class within a women's state correctional facility and a parenting class modeled from Parent-Child Interaction Therapy. *Child Youth Serv Rev.* 2014;46:238–247.
27. Keeshin BR, Oxman A, Schindler S, Campbell KA. A domestic violence shelter parent training program for mothers with young children. *J Fam Violence.* 2015;30(4):461–466.
28. Foley K, McNeil CB, Norman M, Wallace NM. Effectiveness of group format Parent-Child Interaction Therapy compared to treatment as usual in a community outreach organization. *Child Fam Behav Ther.* 2016;38(4):279–298.
29. Mersky JP, Topitzes J, Janczewski CE, McNeil CB. Enhancing foster parent training with Parent-Child Interaction Therapy: evidence from a randomized field experiment. *J Soc Social Work Res.* 2015;6(4):591–616.
30. Timmer SG, Urquiza AJ, Zebell N. Challenging foster caregiver-maltreated child relationships: the effectiveness of Parent-Child Interaction Therapy. *Child Youth Serv Rev.* 2006;28(1):1–19.
31. N'zi AM, Stevens M, Eyberg SM. Child Directed Interaction Training for young children in kinship care: a pilot study. *Child Abuse Negl.* 2016;55:81–91.
32. Abrahamse ME, Nieuwenhuis LN, Junger M, Boer F, Lindauer RJL. Risk factors for attrition from an evidence-based parenting program: findings from the Netherlands. *Child Youth Serv Rev.* 2016;64:42–50.
33. Bjørseth Å, Wichstrøm L. Effectiveness of Parent-Child Interaction Therapy (PCIT) in the treatment of young children's behavior problems. A randomized controlled study. *PLoS One.* 2016;11(9):1–19.
34. Leung C, Tsang S, Heung K, Yiu I. Effectiveness of Parent-Child Interaction Therapy (PCIT) among Chinese families. *Res Soc Work Pract.* 2009;19(3):304–313.
35. Rait S. The Holding Hands Project: effectiveness in promoting positive parent-child interactions. *Educ Psychol Pract.* 2012;28(4):353–371.
36. Kazdin AE. A model for developing effective treatments: progression and interplay of theory, research, and practice. *J Clin Child Psychol.* 1997;26(2):114–129.
37. Danko CM, Brown T, Van Schoick L, Budd KS. Predictors and correlates of homework completion in Parent-Child Interaction Therapy. *Child Youth Care Forum.* 2016;45(3):467–485.
38. Ros R, Hernandez J, Graziano PA, Bagnier DM. Parent training for children with or at risk for developmental delay: the role of parental homework completion. *Behav Ther.* 2016;47(1):1–13.
39. Stokes JO, Jent JF, Weinstein A, et al. Does practice make perfect? The relationship between self-reported treatment homework completion and parental skill acquisition and child behaviors. *Behav Ther.* 2016;47(4):538–549.
40. Chaffin M, Valle LA, Funderburk B, Kees M. Retention in PCIT for low-motivation child welfare clients. *Child Maltreat.* 2009;14(4):356–368.
41. Herschell AD, Capage LC, Bahl AB, McNeil CB. The role of therapist communication style in Parent-Child Interaction Therapy. *Child Fam Behav Ther.* 2008;30(1):13–35.
42. Chaffin M, Funderburk B, Bard D, Valle L, Gurwitsch R. A combined motivation and Parent-Child Interaction Therapy package reduces child welfare recidivism in a randomized dismantling field trial. *J Consult Clin Psychol.* 2011;79(1):84–95.
43. Shanley JR, Nieuwenhuis LN. Coaching parents to change: the impact of in vivo feedback on parents' acquisition of skills. *J Clin Child Adolesc Psychol.* 2010;39:282–287.
44. Tiano JD, Grate RM, McNeil CB. Comparison of mothers' and fathers' opinions of Parent-Child Interaction Therapy. *Child Fam Behav Ther.* 2013;35(2):110–131.
45. Barnett ML, Nieuwenhuis LN, Acevedo-Polakovich ID. Assessing the key to effective coaching in Parent-Child Interaction Therapy: the Therapist-Parent Interaction Coding System. *J Psychopathol Behav Assess.* 2014;36(2):211–223.
46. Tempel AB, Wagner SM, McNeil CB. Behavioral parent training skills and child behavior: the utility of behavioral descriptions and reflections. *Child Fam Behav Ther.* 2013;35(1):25–40.
47. Thornberry T, Brestan-Knight E. Analyzing the utility of Dyadic Parent-Child Interaction Coding System (DPICS) warm-up segments. *J Psychopathol Behav Assess.* 2011;33(2):187–195.
48. Shanley JR, Nieuwenhuis LN. The contribution of the Dyadic Parent-Child Interaction Coding System (DPICS) warm-up segments in assessing parent-child interactions. *Child Fam Behav Ther.* 2011;33:248–263.
49. Harwood MD, Eyberg SM. Child-directed interaction: prediction of change in impaired mother-child functioning. *J Abnorm Child Psychol.* 2006;34(3):335–347.
50. Eyberg S, Boggs S, Jaccard J. Does maintenance treatment matter? *J Abnorm Child Psychol.* 2014;42(3):355–366.
51. Baumann AA, Powell BJ, Kohl PL, et al. Cultural adaptation and implementation of evidence-based parent-training: a systematic review and critique of guiding evidence. *Child Youth Serv Rev.* 2015;53:113–120.
52. Bagnier DM, Cox S, Hungerford GM, et al. Behavioral parent training in infancy: a window of opportunity for high-risk families. *J Abnorm Child Psychol.* 2016;44(5):901–912.
53. Kohlhoff J, Morgan S. Parent-Child Interaction Therapy for toddlers: a pilot study. *Child Fam Behav Ther.* 2014;36(2):121–139.
54. Stokes JO, Scudder AT, Costello AH, McNeil CB. Parent-Child Interaction Therapy with an eight-year old child: a case study. *Evidence Based Pract Child Adolesc Ment Heal.* 2017;2(1):1–11.
55. Abrahamse ME, Junger M, Chavannes E, Coelman FJ, Boer F, Lindauer RJ. Parent-Child Interaction Therapy for preschool children with disruptive behaviour problems in the Netherlands. *Child Adolesc Psychiatry Ment Health.* 2012;6:1–9.
56. Capous DE, Wallace NM, McNeil DJ, Cargo TA. Parent-child interactions and relationships: perceptions, practices, and developmental outcomes. In: Alvarez K, editor. *Parent-Child Interactions and Relationships: Perceptions, Practices, and Developmental Outcomes.* New York, NY: Nova Science Publishers; 2016: 1–44.
57. BigFoot DS, Funderburk BW. Honoring children, making relatives: the cultural translation of Parent-Child Interaction Therapy for American Indian and Alaska Native Families. *J Psychoactive Drugs.* 2011;43(4):309–318.
58. McCabe K, Yeh M. Parent-Child Interaction Therapy for Mexican Americans: a randomized clinical trial. *J Clin Child Adolesc Psychol.* 2009;38(5):753–759.
59. McCabe K, Yeh M, Lau A, Argote CB. Parent-Child Interaction Therapy for Mexican Americans: results of a pilot randomized clinical trial at follow-up. *Behav Ther.* 2012;43(3):606–618.
60. Gurwitsch RH, Messer EP, Lopez S, Chung G. Bringing evidence-based treatments to military families: new applications for Parent-Child Interaction Therapy. *American Psychological Association Annual Convention.* Honolulu, HI: 2013.
61. Pemberton JR, Kramer TL, Borrego J, Owen RR. Kids at the VA? A call for evidence-based parenting interventions for returning veterans. *Psychol Serv.* 2013;10(2):194–202.

62. Carpenter AL, Puliafico AC, Kurtz SMS, Pincus DB, Comer JS. Extending Parent-Child Interaction Therapy for early childhood internalizing problems: new advances for an overlooked population. *Clin Child Fam Psychol Rev*. 2014;17(4):340–356.
63. Luby JL, Stalets MM, Blakenship S, Pautsch J, McGrath M. Treatment of preschool bipolar disorder: a novel Parent-Child Interaction Therapy and review of data of psychopharmacology. In: Geller B, DelBello MP, editors. *Treatment of Bipolar Disorder in Children and Adolescents*. New York, NY: The Guildford Press; 2008:270–286.
64. Chronis-Tuscano A, Lewis-Morrarty E, Woods KE, O'Brien KA, Mazursky-Horowitz H, Thomas SR. Parent-Child Interaction Therapy with emotion coaching for preschoolers with attention-deficit/hyperactivity disorder. *Cogn Behav Pract*. 2016;23(1):62–78.
65. Luby J, Lenze S, Tillman R. A novel early intervention for preschool depression: findings from a pilot randomized controlled trial. *J Child Psychol Psychiatry*. 2012;53(3):313–322.
66. Pincus DB, Santucci LC, Ehrenreich JT, Eyberg SM. The implementation of modified Parent-Child Interaction Therapy for youth with separation anxiety disorder. *Cogn Behav Pract*. 2008;15(2):118–125.
67. Puliafico AC, Comer JS, Albano AM. Coaching approach behavior and leading by modeling: rationale, principles, and a session-by-session description of the CALM program for early childhood anxiety. *Cogn Behav Pract*. 2013;20(4):517–528.
68. Hansen B, Shillingsburg MA. Using a modified Parent-Child Interaction Therapy to increase vocalizations in children with Autism. *Child Fam Behav Ther*. 2016;38(4):318–330.
69. Zlomke KR, Jeter K, Murphy J. Open-trial pilot of Parent-Child Interaction Therapy for children with autism spectrum disorder. *Child Fam Behav Ther*. 2017;39(1):1–18.
70. Lesack R, Bearss K, Celano M, Sharp WG. Parent-Child Interaction Therapy and autism spectrum disorder: adaptations with a child with severe developmental delays. *Clin Pract Pediatr Psychol*. 2014;2(1):68–82.
71. Masse JJ, McNeil CB, Wagner S, Quetsch LB. Examining the efficacy of Parent-Child Interaction Therapy with children on the autism spectrum. *J Child Fam Stud*. 2016;25(8):2508–2525.
72. Solomon M, Ono M, Timmer S, Goodlin-Jones B. The effectiveness of Parent-Child Interaction Therapy for families of children on the autism spectrum. *J Autism Dev Disord*. 2008;38(9):1767–1776.
73. Hatamzadeh A, Pouretmad H, Hassanabadi H. The effectiveness of Parent – Child Interaction Therapy for children with high functioning autism. *Proc Soc Behav Sci*. 2010;5(2):994–997.
74. Armstrong K, Kimonis ER. Parent-Child Interaction Therapy for the treatment of asperger's disorder in early childhood: a case study. *Clin Case Stud*. 2013;12(1):60–72.
75. Armstrong K, DeLoatch KJ, Preece KK, Agazzi H. Combining Parent-Child Interaction Therapy and visual supports for the treatment of challenging behavior in a child with autism and intellectual disabilities and comorbid epilepsy. *J Anal Appl Pyrolysis*. 2015;14(1):3–14.
76. Masse JJ, McNeil CB, Wagner SM, Chorney DB. Parent-Child Interaction Therapy and high functioning autism: a conceptual overview. *J Early Intensive Behav Interv*. 2007;4(4):714–735.
77. Babinski DE, Waxmonsky JG, Waschbusch DA, et al. A pilot study of stimulant medication for adults with attention-deficit/hyperactivity disorder (ADHD) who are parents of adolescents with ADHD: the acute effects of stimulant medication on observed parent-adolescent interactions. *J Child Adolesc Psychopharmacol*. 2014;24(10):582–585.
78. Chengappa K, McNeil CB, Norman M, Quetsch LB, Travers R. Efficacy of Parent-Child Interaction Therapy with parents with intellectual disability. *Child Fam Behav Ther*. In press 2017.
79. McElroy EM, Rodriguez CM. Mothers of children with externalizing behavior problems: cognitive risk factors for abuse potential and discipline style and practices. *Child Abus Negl*. 2008;32(8):774–784.
80. Shinn MM. Parent-Child Interaction Therapy with a deaf and hard of hearing family. *Clin Case Stud*. 2013;12(6):411–427.
81. Niec LN, Hemme JM, Yopp JM, Brestan EV. Parent-Child Interaction Therapy: the rewards and challenges of a group format. *Cogn Behav Pract*. 2005;12(1):113–125.
82. Niete L, Thornberry T, Brestan-Knight E. The effectiveness of group Parent-Child Interaction Therapy with community families. *J Child Fam Stud*. 2013;22(4):490–501.
83. Niec LN, Barnett ML, Prewett MS, Shanley JR. Group Parent-Child Interaction Therapy: a randomized control trial for the treatment of conduct problems in young children. *J Consult Clin Psychol*. 2016;84(5):682–698.
84. Bagner DM, Rodríguez GM, Blake CA, Rosa-Olivares J. Home-based preventive parenting intervention for at-risk infants and their families: an open trial. *Cogn Behav Pract*. 2013;20(3):334–348.
85. Beveridge RM, Fowles TR, Masse JJ, et al. State-wide dissemination and implementation of Parent-Child Interaction Therapy (PCIT): application of theory. *Child Youth Serv Rev*. 2015;48:38–48.
86. Masse JJ, McNeil CB. In-home Parent-Child Interaction Therapy: clinical considerations. *Child Fam Behav Ther*. 2008;30(2):127–135.
87. Budd KS, Garbacz LL, Carter JS. Collaborating with public school partners to implement Teacher-Child Interaction Therapy (TCIT) as universal prevention. *School Ment Health*. 2016;8:207–221.
88. Fernandez MA, Gold DC, Hirsch E, Miller SP. From the clinics to the classrooms: a review of teacher-child interaction training in primary, secondary, and tertiary prevention settings. *Cogn Behav Pract*. 2015;22(2):217–229.
89. Garbacz LL, Zychinski KE, Feuer RM, Carter JS, Budd KS. Effects of Teacher-Child Interaction Therapy (TCIT) on teacher ratings of behavior change. *Psychol Sch*. 2014;51(8):850–865.
90. Lyon AR, Gershenson RA, Farahmand FK, Thaxter PJ, Behling S, Budd KS. Effectiveness of teacher-child interaction training (TCIT) in a preschool setting. *Behav Modif*. 2009;33(6):855–884.
91. Graziano PA, Bagner DM, Slavec J, et al. Feasibility of Intensive Parent-Child Interaction Therapy (I-PCIT): results from an open trial. *J Psychopathol Behav Assess*. 2015;37(1):38–49.
92. Fernandez MA, Eyberg SM. Keeping families in once they've come through the door: attrition in Parent-Child Interaction Therapy. *J Early Intensive Behav Interv*. 2005;2(3):207–212.
93. Lanier P, Kohl PL, Benz J, Swinger D, Moussette P, Drake B. Parent-Child Interaction Therapy in a community setting: examining outcomes, attrition, and treatment setting. *Res Soc Work Pract*. 2011;21(6):689–698.
94. Campbell C. *Adapting an Evidence-Based Intervention to Improve Social and Behavioral Competence in Head Start Children: Evaluating the Effectiveness of Teacher-Child Interaction Training* [dissertation]. Lincoln, NE: Department of Psychology at DigitalCommons@University of Nebraska - Lincoln; 2011.
95. Tiano JD, McNeil CB. Training head start teachers in behavior management using Parent-Child Interaction Therapy: a preliminary investigation. *J Early Intensive Behav Interv*. 2006;3(2):220–233.
96. Fernandez MA, Adelstein JS, Miller SP, et al. Teacher-child interaction training: a pilot study with random assignment. *Behav Ther*. 2015;46(4):463–477.
97. LeBuffe PA, Naglieri JA. *Devereux Early Childhood Assessment: Technical Manual*. Lewisville, NC: Kaplan Early Learning Company; 1999.
98. Mersky JP, Topitzes J, Grant-Savelle SD, Brondino MJ, McNeil CB. Adapting Parent-Child Interaction Therapy to foster care: outcomes from a randomized trial. *Res Soc Work Pract*. 2016;26(2):157–167.
99. Gershenson RA, Lyon AA, Budd KS. Promoting positive interactions in the classroom: adapting Parent-Child Interaction Therapy as a universal prevention program. *Educ Treat Child*. 2010;33(2):261–287.
100. Lee EL, Wilsie CC, Brestan-Knight E. Using Parent-Child Interaction Therapy to develop a pre-parent education module. *Child Youth Serv Rev*. 2011;33(7):1254–1261.

101. Niec LN, Acevedo-Polakovich ID, Abbenante-Honold E, et al. Working together to solve disparities: Latina/o parents' contributions to the adaptation of a preventive intervention for childhood conduct problems. *Psychol Serv*. 2014;11(4):410–420.
102. Allen B, Timmer SG, Urquiza AJ. Parent–Child Interaction Therapy as an attachment-based intervention: theoretical rationale and pilot data with adopted children. *Child Youth Serv Rev*. 2014;47(P3):334–341.
103. Thomas R, Zimmer-Gembeck MJ. Accumulating evidence for Parent–Child Interaction Therapy in the prevention of child maltreatment. *Child Dev*. 2011;82(1):177–192.
104. Allen J, Marshall CR. Parent–Child Interaction Therapy (PCIT) in school-aged children with specific language impairment. *Int J Lang Commun Disord*. 2011;46(4):397–410.
105. Bagner DM, Garcia D, Hill R. Direct and indirect effects of behavioral parent training on infant language production. *Behav Ther*. 2016;47(2):184–197.
106. Garcia D, Bagner DM, Pruden SM, Nichols-Lopez K. Language production in children with and at risk for delay: mediating role of parenting skills. *J Clin Child Adolesc Psychol*. 2015;44(5):814–825.
107. Millard SK, Nicholas A, Cook F. Is Parent–Child Interaction Therapy effective in reducing stuttering? *J Speech Lang Hear Res*. 2008;51:636–650.
108. Tempel AB, Wagner SM, McNeil CB. Parent–Child Interaction Therapy and language facilitation: the role of parent-training on language development. *J Speech Lang Pathol Appl Behav Anal*. 2009;3(2–3):216–232.
109. Egger HL, Angold A. Common emotional and behavioral disorders in preschool children: presentation, nosology, and epidemiology. *J Child Psychol Psychiatry Allied Discip*. 2006;47(3–4):313–337.
110. Moffitt TE, Caspi A, Harrington H, Minle BJ. Males on the life-course-persistent and adolescence-limited antisocial pathways: follow-up at age 26 years. *Dev Psychopathol*. 2002;14(1):179–207.
111. Shaw DS, Gilliom M, Ingoldsby EM, Nagin DS. Trajectories leading to school-age conduct problems. *Dev Psychol*. 2003;39(2):189–200.
112. Foster ME, Jones DE. The high costs of aggression: public expenditures resulting from conduct disorder. *Am J Public Health*. 2005;95(10):1767–1772.
113. Berkovits MD, O'Brien KA, Carter CG, Eyberg SM. Early identification and intervention for behavior problems in primary care: a comparison of two abbreviated versions of Parent–Child Interaction Therapy. *Behav Ther*. 2010;41(3):375–387.
114. Goldfine ME, Wagner SM, Branstetter SA, McNeil CB. Parent–Child Interaction Therapy: an examination of cost-effectiveness. *J Early Intensive Behav Interv*. 2008;5(1):119–141.
115. Novins DK, Green AE, Legha RK, Aarons GA. Dissemination and implementation of evidence-based practices for child and adolescent mental health: a systematic review. *J Am Acad Child Adolesc Psychiatry*. 2013;52(10):1009–1025.
116. Timmer SG, Urquiza AJ, Boys DK, et al. Filling potholes on the implementation highway: evaluating the implementation of Parent–Child Interaction Therapy in Los Angeles County. *Child Abuse Negl*. 2015;53:40–50.
117. Topitzes J, Mersky JP, McNeil CB. Implementation of Parent Child Interaction Therapy within foster care: an attempt to translate an evidence-based program within a local child welfare agency. *J Public Child Welf*. 2015;9(1):22–41.
118. Herschell AD, Kolko DJ, Scudder AT, et al. Protocol for a statewide randomized controlled trial to compare three training models for implementing an evidence-based treatment. *Implement Sci*. 2015;10(1):133.
119. Funderburk BW, Ware LM, Altshuler E, Chaffin M. Use and feasibility of telemedicine technology in the dissemination of Parent–Child Interaction Therapy. *Child Maltreat*. 2008;13(4):377–382.
120. Funderburk B, Chaffin M, Bard E, Shanley J, Bard D, Berliner L. Comparing client outcomes for two evidence-based treatment consultation strategies. *J Clin Child Adolesc Psychol*. 2015;44(5):730–741.
121. Nelson MM, Shanley JR, Funderburk BW, Bard E. Therapists' attitudes toward evidence-based practices and implementation of Parent–Child Interaction Therapy. *Child Maltreat*. 2012;17(1):47–55.
122. Pearl E, Thieken L, Olafson E, et al. Effectiveness of community dissemination of Parent–Child Interaction Therapy. *Psychol Trauma Theory Res Pract Policy*. 2012;4(2):204–213.
123. Christian AS, Niec LN, Acevedo-Polakovich ID, Kassab VA. Dissemination of an evidence-based parenting program: clinician perspectives on training and implementation. *Child Youth Serv Rev*. 2014;43:8–17.
124. Herschell AD, McNeil CB, Urquiza AJ, et al. Evaluation of a treatment manual and workshops for disseminating, Parent–Child Interaction Therapy. *Adm Policy Ment Heal Ment Heal Serv Res*. 2009;36(1):63–81.
125. Scudder AT, Herschell AD. Building an evidence-base for the training of evidence-based treatments in community settings: use of an expert-informed approach. *Child Youth Serv Rev*. 2015;55:84–92.
126. Wilsie CC, Brestan-Knight E. Using an online viewing system for Parent–Child Interaction therapy consulting with professionals. *Psychol Serv*. 2012;9(2):224–226.
127. Borrego J, Burrell TL. Using behavioral parent training to treat disruptive behavior disorders in young children: a how-to approach using video clips. *Cogn Behav Pract*. 2010;17(1):25–34.
128. Comer JS, Furr JM, Cooper-Vince C, et al. Rationale and considerations for the internet-based delivery of Parent–Child Interaction Therapy. *Cogn Behav Pract*. 2015;22(3):302–316.
129. Fernandez MA, Eyberg SM. Predicting treatment and follow-up attrition in Parent–Child Interaction Therapy. *J Abnorm Child Psychol*. 2009;37(3):431–441.
130. Werba BE, Eyberg SM, Boggs SR, Algina J. Predicting outcome in Parent–Child Interaction Therapy: success and attrition. *Behav Modif*. 2006;30(5):618–646.
131. Aldao A. Introduction to the special issue: emotion regulation as a transdiagnostic process. *Cognit Ther Res*. 2016;40(3):257–261.
132. Bagner DM, Graziano PA, Jaccard J, Sheinkopf SJ, Vohr BR, Lester BM. An initial investigation of baseline respiratory sinus arrhythmia as a moderator of treatment outcome for young children born premature with externalizing behavior Problems. *Behav Ther*. 2012;43(3):652–665.
133. Rodríguez GM, Bagner DM, Graziano PA. Parent training for children born premature: a pilot study examining the moderating role of emotion regulation. *Child Psychiatry Hum Dev*. 2014;45(2):143–152.
134. Graziano PA, Bagner DM, Sheinkopf SJ, Vohr BR, Lester BM. Evidence-based intervention for young children born premature: preliminary evidence for associated changes in physiological regulation. *Infant Behav Dev*. 2012;35(3):417–428.
135. Comer JS, Puliafico AC, Aschenbrand SG, et al. A pilot feasibility evaluation of the CALM Program for anxiety disorders in early childhood. *J Anxiety Disord*. 2012;26(1):40–49.
136. Lenze SN, Pautsch J, Luby J. Parent–Child Interaction Therapy emotional development: a novel treatment for depression in preschool children. *Depress Anxiety*. 2011;28(2):153–159.
137. Agazzi H, Tan R, Tan SY. A case study of parent–child interaction therapy for the treatment of autism spectrum disorder. *Clinical Case Studies*. 2013;12(6):428–442.
138. Ginn NC, Clionsky LN, Eyberg SM, Warner-Metzger C, Abner JP. Child-directed interaction training for young children with autism spectrum disorders: parent and child outcomes. *J Clin Child Adolesc Psychol*. 2017;46(1):101–109.
139. Abrahamse ME, Junger M, van Wouwe MAMM, Boer F, Lindauer RJJ. Treating child disruptive behavior in high-risk families: A comparative effectiveness trial from a community-based implementation. *J Child Fam Stud*. 2015;25(5):1605–1622.
140. Budd KS, Hella B, Bae H, Meyerson DA, Watkin SC. Delivering parent-child interaction therapy in an urban community clinic. *Cogn Behav Pract*. 2011;18(4):502–514.
141. Galanter R, Self-Brown S, Valente JR, et al. Effectiveness of parent–child interaction therapy delivered to at-risk families in the home setting. *Child Fam Behav Ther*. 2012;34(3):177–196.

Psychology Research and Behavior Management**Dovepress****Publish your work in this journal**

Psychology Research and Behavior Management is an international, peer-reviewed, open access journal focusing on the science of psychology and its application in behavior management to develop improved outcomes in the clinical, educational, sports and business arenas. Specific topics covered in the journal include: Neuroscience, memory and decision making; Behavior

modification and management; Clinical applications; Business and sports performance management; Social and developmental studies; Animal studies. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <https://www.dovepress.com/psychology-research-and-behavior-management-journal>