

# PCIT: Summary of 40 Years of Research

14

# Laurel A. Brabson, Carrie B. Jackson, Brittany K. Liebsack, and Amy D. Herschell

## Abstract

Parent-Child Interaction Therapy (PCIT) is a manualized behavioral parent training program developed by Dr. Sheila Eyberg in the 1970s. Since its development over 40 years ago, research on PCIT has followed Kazdin's model for treatment development, progressing from a conceptualization of the problem area and proposed mechanisms of change, to a formalization of the intervention, to outcome studies, and ending with testing the boundary limits of the intervention. PCIT is now recognized as an evidence-based treatment for young children with disruptive behavior disorders and/or a history of harsh physical discipline and child physical abuse, with increasing evidence to support its use for children of diverse cultural backgrounds and with varied presenting concerns. The current chapter reviews 40 years of research on PCIT, beginning with a summary of effectiveness and efficacy trials using standard PCIT, followed by descriptions of adaptation and applications of PCIT for children of diverse backgrounds and with a variety of presenting concerns.

A. D. Herschell West Virginia University, Morgantown, WV, USA

University of Pittsburgh School of Medicine, Pittsburgh, PA, USA

Parent-Child Interaction Therapy (PCIT) is a manualized behavioral parent training program, originally developed by Dr. Sheila Eyberg in the 1970s as an intervention for young children with high-level externalizing behavior problems (Eyberg & Robinson, 1982). PCIT is a modification of the Hanf two-stage model of treatment (Hanf, 1969) which became popular in the 1970s and represented a shift away from individual therapy to a focus on family interactions in the treatment of childhood disorders (Eyberg & Robinson, 1982). PCIT differs from the original Hanf model in that it emphasizes strengthening the parent-child relationship (Eyberg & Robinson, 1982). Although it has been refined over the decades, PCIT has retained the two-phase structure. The Child-Directed Interaction (CDI) phase is focused on teaching the parent traditional play therapy skills to strengthen the relationship between the parent and child. The second phase, Parent-Directed Interaction (PDI), is focused on improving child compliance and other forms of misbehavior using operant techniques (McNeil & Hembree-Kigin, 2010; a full description of the treatment model is provided in Chap. 13 of this book).

Over four decades of research on PCIT has accumulated, resulting in its recognition as an evidence-based treatment for children aged 2.5–7 years with disruptive behavior disorders (Zisser & Eyberg, 2010) or with a history of child physical abuse or harsh physical discipline

L. A. Brabson (⊠) · C. B. Jackson · B. K. Liebsack West Virginia University, Morgantown, WV, USA e-mail: labrabson@mix.wvu.edu

<sup>©</sup> Springer Nature Switzerland AG 2018

C. B. McNeil et al. (eds.), Handbook of Parent-Child Interaction Therapy for Children on the Autism Spectrum, https://doi.org/10.1007/978-3-030-03213-5\_14

(Chadwick Center for Children and Families, 2004). The goal of this chapter is to review this substantive body of research on PCIT, guided by Kazdin's (1997) model for developing effective treatments as an organizing framework. Kazdin (1997) proposed that the development of effective treatments should begin with a thorough conceptualization of the problem area, as well as possible processes and mechanisms related to the problem area. Next, research should investigate the relation between these proposed processes and the problem area, followed by a conceptualization of the treatment based on mechanisms of change. Once the relations have been established and a treatment model has been conceptualized, the intervention should be manualized and implemented, followed by an evaluation of treatment outcomes. Finally, boundary limits of the treatment should be tested, focusing on diverse client groups and contextual factors (Kazdin, 1997).

The historical progression of research on PCIT has largely followed Kazdin's model, with earlier research investigating the specific treatment components and their relation to child misbehavior, followed by the manualization of the intervention and assessment of treatment outcomes using a variety of research designs. Efficacy and effectiveness trials assessing client outcomes for PCIT were later followed by studies examining novel applications of the treatment model with diverse groups and in innovative settings. Recent areas of focus have included using PCIT with children outside the 2.5–7 year age range, from diverse cultural backgrounds, and with a variety of presenting concerns.<sup>1</sup>

This research-focused chapter will begin with a review of treatment outcomes followed by a

discussion of innovative uses for PCIT. A thorough review of the early phases of treatment development as outlined by Kazdin (1997), such as research demonstrating the effect of specific skills used in PCIT (e.g., different types of praise, time-out) on child behavior, is outside the scope of this chapter. Interested readers are invited to early description of PCIT reference an (Eisenstadt, Eyberg, McNeil, Newcomb, & Funderburk, 1993), which provides an overview of the background research that supported the development of both the original Hanf model and PCIT. While efforts have been made to include as comprehensive a review as possible in each chapter section, it was impossible to include a description of all published literature on PCIT given how extensively PCIT has been studied. As such, tables have been provided in sections with larger bodies of research, to give readers a complete list of relevant articles.

# 14.1 Outcome Studies

In line with Kazdin's (1997) early stages of treatment development, foundational studies that led to the formation of the PCIT model included research investigating the effects of specific parental skills, such as different types of praise (Bernhardt & Forehand, 1975) and the parameters of time-out (Bean & Roberts, 1981), on child behavior. Once the efficacy of these distinct components was established, the full PCIT model was developed and the treatment was manualized. The first published description of the PCIT model (Eyberg & Robinson, 1982) details the treatment of seven families with a child between the ages of 2-7 years with disruptive behaviors. This sample is representative of the early focus of PCIT outcomes studies, and the research reviewed in this section will include studies that used standard PCIT for families of children between 2.5 and 7 years with disruptive behaviors. Readers will notice the later section within this chapter pertaining to diagnosis-specific adaptations, which summarizes the literature on PCIT outcomes for different presenting concerns.

<sup>&</sup>lt;sup>1</sup>The authors would like to note that a variety of caregivers (e.g., foster parents, kinship caregivers, extended family members; Mersky, Topitzes, Grant-Savela, Brondino, & McNeil, 2016; N'zi et al., 2016) are often included in standard PCIT. This point warrants special consideration in light of language choices made throughout the chapter. To maintain consistency, both with the name of the intervention and throughout the various sections of this chapter, the use of "parent" was chosen over "caregiver." However, we would like readers to note that the term "parent" should be considered a descriptor for any individual who is a caregiver for the child.

Numerous outcome studies have noted statistically and clinically significant improvements in both parenting skills and child behaviors across a variety of research designs. Earlier studies tended to be efficacy trials, which employed strict inclusion and exclusion criteria and with treatment delivered in a controlled university clinic setting (e.g., Eisenstadt et al., 1993; Eyberg & Robinson, 1982). These studies demonstrated improvements in parenting skills and child behavior from pretreatment to posttreatment (Eisenstadt et al., 1993; Eyberg & Matarazzo, 1980), as well as improvements compared to nontreatment control groups (Brestan, Eyberg, Boggs, & Algina, 1997; Eyberg & Matarazzo, 1980; McNeil, Capage, Bahl, & Blanc, 1999; Schuhmann, Foote, Eyberg, Boggs, & Algina, 1998) using multi-method and multi-informant approaches. Long-term followup from these studies has shown that improvements made during treatment were maintained between 1 and 6 years posttreatment (Boggs et al., 2005; Eyberg et al., 2001; Hood & Eyberg, 2003). In addition, generalization of improvements have been found in child behavior to the school setting (McNeil, Eyberg, Eisenstadt, Newcomb, & Funderburk, 1991) and in parent skills used with untreated siblings (Brestan et al., 1997). Research has also shown that parents who complete treatment feel more confident in their abilities to manage their child's behaviors and are satisfied with the intervention process, content, and outcome (Schuhmann et al., 1998).

More recently, PCIT outcomes have been evaluated in effectiveness trials, with more flexibility in participant inclusion and with treatment delivered in community settings. As with the efficacy trials, the majority of the effectiveness studies have noted improvements in child behavior and in parenting skills, both from pretreatment to posttreatment and when compared to nontreatment control groups. These studies have been summarized in Table 14.1 and only include effectiveness studies that have been conducted using standard PCIT within the United States. Those studies that have used an adaptation of PCIT or have been conducted internationally are reviewed in later sections of this chapter.

PCIT has been the focus of several reviews (e.g., Eyber, Nelson, & Boggs, 2008; Lieneman, Brabson, Highlander, Wallace, & McNeil, 2017) and meta-analyses (Thomas, Abell, Webb, Avdagic, & Zimmer-Gembeck, 2017; Thomas & Zimmer-Gembeck, 2007; Ward, Theule, & Cheung, 2016). Although PCIT has still not been directly compared with an alternative treatment or placebo control within the United States, one study used meta-analyses to compare PCIT with Triple P—Positive Parenting Program (Thomas & Zimmer-Gembeck, 2007) in Australia. Results of this meta-analysis indicated improved child behaviors and parenting for both programs, with larger effect sizes noted for PCIT compared to most forms of Triple P (Thomas & Zimmer-Gembeck, 2011). Two recent meta-analyses examined PCIT outcomes (Thomas et al., 2017; Ward et al., 2016), with the most recent including 23 studies (Thomas et al., 2017). Both meta-analyses found large effect sizes for changes in child behavior and parenting skills (Thomas et al., 2017; Ward et al., 2016).

#### 14.2 Treatment Components

As a manualized version of PCIT had been found to be both efficacious and effective, the next step outlined by Kazdin (1997) is to test the treatment process by examining the extent to which specific methods, techniques, and components of the intervention affect processes critical to the conceptual model of the target problem. Accordingly, PCIT researchers have studied specific PCIT treatment components.

## 14.2.1 Treatment Phases

Studies have been conducted to understand the sequencing and omission of treatment phases. Two studies have found that the CDI phase alone produces important treatment gains, such as decreases in parenting stress, increases in positive parenting practices, and decreases in child disruptive behavior (Danko, Garbacz, & Budd, 2016; Harwood & Eyberg, 2006). Other

Authors	n	Setting	Study design	Findings
Budd, Hella, Bae, Meyerson, and Watkin (2011)	4 families 5 children	Urban community behavioral health clinic	Pre-post case studies	Significant improvement in child behavior, from the clinical range (pre) to below clinical (post)
Danko, Garbacz, and Budd (2016)	52 families	Urban community behavioral health clinic	Pre-post	Significant improvement in child behavior ( $d = 2.30$ )
Galanter et al. (2012)	83 families	In-home services	Pre-post	Significant improvement in child behavior ( $d = 1.22$ )
Hakman, Chaffin, Funderburk, and Silovsky (2009)	22 families	Child welfare agency	Pre-post	Increases in positive parental responses and decreases in negative parental responses
Keeshin, Oxman, Schindler, and Campbell (2015)	8 mother-child dyads	Domestic violence shelter	Pre-post	Significant increases in positive verbalizations and decreases in negative verbalizations
Lyon and Budd (2010)	14 families	Urban community behavioral health center	Pre-post	Significant improvement in child misbehavior, with less improvement noted for treatment non-completers
Naik-Polan and Budd (2008)	4 mother-child dyads	Child welfare outpatient clinic	Pre-post	Increases in positive parental responses and decreases in negative parental responses
N'zi, Stevens, and Eyberg (2016)	14 families	Participants in a kinship care program	Group comparison	Significant decreases in child externalizing problems ( $d = 1.04$ ) for the PCIT group but not the waitlist control group
Self-Brown et al. (2012)	83 families	Child welfare agency	Pre-post benchmarking	Community PCIT produced better outcomes than a control benchmark, but inferior outcomes to a gold- standard PCIT efficacy trial benchmark
Timmer, Urquiza, and Zebell (2006)	75 foster families 98 non-abusive biological parent-child dyads	University- based outpatient clinic	Group comparison	Significant improvement in child behavior from pretreatment to posttreatment for both foster parents and biological parents, with no difference between these groups
Timmer, Ware, Urquiza, and Zebell (2010)	62 families with IPV; 67 families without IPV	University- based outpatient clinic	Group comparison	Significant improvement in child behavior from pretreatment to posttreatment for families with and without IPV, with no difference between these groups

Table 14.1 Summary of PCIT effectiveness studies

Note: PCIT Parent-Child Interaction Therapy, IPV interparental violence

researchers have reversed the standard order of treatment, by beginning with the PDI phase. Families receiving PDI first reported greater improvements in child behavior problems than families receiving CDI first; however, there were no significant differences between groups on other outcome measures (e.g., parenting stress, child self-esteem; Eisenstadt et al., 1993). Although CDI does improve the parent-child relationship and set the foundation for PDI, it may be useful to deliver PDI first for some families with children who exhibit serious and potentially dangerous behavior problems (Eisenstadt et al., 1993).

#### 14.2.2 Assessment

Standard PCIT includes assessment measures to guide and individualize treatment for each family. Such assessment methods include the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999) and the Sutter-Eyberg Student Behavior Inventory (SESBI; Eyberg & Pincus, 1999) to track parent reports of child behavior at home and teacher reports of child behavior at school, respectively. In addition, the Dyadic Parent-Child Interaction Coding System (DPICS; Eyberg, Nelson, Ginn, Bhuiyan, & Boggs, 2013) is an observational coding system used to assess the quality of parent-child interactions in therapy sessions. The DPICS is used in two ways in standard PCIT. First, the therapist codes parent-child interactions during three different five-minute scenarios prior to beginning treatment, as a baseline measure of parent skill and child compliance. Coding within these three scenarios can also be completed posttreatment to assess overall change in parent skill and child compliance. Second, throughout the course of treatment, parent-child interactions are coded during the first five minutes of every session. This allows the therapist to identify specific skills that should be the focus of that day's session, in addition to continually tracking progress throughout treatment.

Before coding starts, parents are encouraged to begin using their skills during a five-minute warm up segment to allow the parent-child dyad to adjust to the task and the environment. To evaluate the necessity of these warm up segments, differences in parent skill use during the warm up segments and coded segments have been examined. Though Thornberry and Brestan-Knight (2011) found no significant differences in skill use between the two segments, Shanley and Niec (2011) did find significant differences during the warm up and coded segments, but only during the first of the three standard situations used in the DPICS. Given these mixed findings, additional research is needed to more fully understand the need for warm up segments when using the DPICS (Shanley & Niec, 2011; Thornberry & Brestan-Knight, 2011). Bahl et al. (1999) provide a helpful case example illustrating the use of assessment throughout treatment.

#### 14.2.3 Homework

Daily homework is required of parents in PCIT given its impact on facilitating skill acquisition and generalization. Danko, Brown, Van Schoick, and Budd (2016) directly examined the hypothesis that daily homework improves treatment engagement and found that parents who completed more homework were also more likely to report higher levels of treatment satisfaction and were somewhat more likely to complete treatment (Danko, Brown, et al., 2016). Similarly, a study by Stokes et al. (2016) found that families who completed more homework achieved skill mastery and graduated from PCIT in fewer sessions than families who reported lower rates of homework completion (Stokes et al., 2016). These findings suggest that daily homework is helpful in improving family outcomes in PCIT.

# 14.2.4 Therapist-Client Communication

One of the most crucial and unique features of PCIT is the in vivo feedback, generally referred to as coaching, that is provided by the therapist to the parents while they interact with their child. This coaching and in vivo feedback has been shown to be essential to improving parenting skills (Shanley & Niec, 2010). Shanley and Niec (2010) randomized parent-child dyads to either a coaching or non-coaching condition. Each family completed a baseline DPICS observation session, followed by a second session 1 week later. During the second session, families in the coaching condition received in vivo feedback designed to increase their use of positive parenting skills, while the families in the non-coaching condition were simply observed again. Families in the noncoaching condition demonstrated a decrease in positive parenting skills, whereas families in the coaching condition demonstrated a significant increase in their use of parenting skills (Shanley & Niec, 2010).

Following evidence that basic coaching is essential to positive parenting changes, researchers examined the quality of coaching interactions. One such study found that parents who were taught components of PCIT through a mix of positive (e.g., "good job ignoring that") and constructive comments (e.g., "you're asking a lot of questions") used PCIT skills at a higher rate than parents who were taught using either a positive only or neutral style (Herschell, Capage, Bahl, & McNeil, 2008). Additional research found that responsive coaching (e.g., praising parents, process comments) was a significant mediator of parenting behavior change, whereas directive coaching (e.g., modeling or prompting a specific skill) was not related to parenting behavior change (Barnett, Niec, & Acevedo-Polakovich, 2014). While it is clear from this research that coaching is essential to parent behavior change, findings regarding the type and style of coaching are incomplete. Additional research would help to elucidate the impact of positive or responsive coaching compared with more directive or constructive coaching.

### 14.2.5 Maintenance of Skills

Maintenance strategies are supplementary components to PCIT and include (a) increasing the length of time between sessions (e.g., once a month) at the end of treatment; (b) teaching parents self-management, problem-solving, and communication skills; (c) providing booster sessions; (d) and delivering other forms of continued therapist contact after treatment ends (Eyberg, Edwards, Boggs, & Foote, 1998). Eyberg, Boggs, and Jaccard (2014) examined the effects of monthly phone calls on the maintenance of treatment outcomes posttreatment by comparing families who received monthly relapse prevention planning phone calls from their PCIT therapist with families who did not receive phone calls. These families were compared at 1- and 2-year follow-up assessments. Both groups of families showed few changes from their posttreatment assessment to their 2-year follow-up assessment, and no differences were noted in the rates of change for each group. While it is possible that maintenance strategies are not necessary for families who successfully complete PCIT, it is also possible that routine assessments alone may inadvertently reinforce maintenance of outcomes (Eyberg et al., 2014).

#### 14.3 Implementation

As PCIT has been established as an effective treatment, and a more nuanced understanding of the essential components of PCIT has been obtained, efforts have been made to increase the availability of PCIT for families who could benefit from such services. To facilitate the implementation and accessibility of PCIT, a number of organizational innovations occurred. In 2009, PCIT International, Inc. was formed to provide training and certification and to promote the fidelity of the model in both research and practice (Funderburk & Eyberg, 2011). At the same time, training guidelines and certification requirements were established (Eyber, Nelson, & Boggs, 2008). These innovations coincided with a few large-scale implementation initiatives, generally within county- or state-level systems. Reports on these implementation efforts have provided important insights regarding common challenges, such as difficulties with initial recruitment and retention of families, as well as high clinician turnover rates (Beveridge et al., 2015; Self-Brown, Whitaker, Berliner, & Kolko, 2012; Timmer et al., 2015; Topitzes, Mersky, & McNeil, 2015). In addition, recommendations for upfront planning were provided, including careful matching of the intervention with the needs of the community, identifying a PCIT champion/advocate, ongoing support for the agencies and providers, and pre-implementation consideration of and planning for long-term sustainability (Beveridge et al., 2015; Scudder et al., 2017; Self-Brown, Valente, et al., 2012; Timmer et al., 2015; Topitzes et al., 2015).

Training has been identified as one of the most crucial factors for the implementation of a new intervention (Proctor et al., 2009; Stirman et al., 2012). As such, there has been significant attention on the type of training provided to therapists interested in PCIT certification. One study noted a discrepancy in the type of training received by different types of therapists; namely that community therapists are trained primarily through phone consultations after the initial face-to-face workshop training, while graduate student therapists in a university training model receive live in-person consultation while they coach families (Funderburk, Ware, Altshuler, & Chaffin, 2008). Although community therapists were more comfortable with the traditional phone consultation model, they found a pilot trial of remote real-time training (i.e., in vivo Skype feedback by an expert consultant) to be more helpful to their competency in PCIT (Funderburk et al., 2008). A later follow-up study noted meaningful improvements in client outcomes with remote real-time training compared with standard phone consultation (Funderburk et al., 2015). Results of these studies indicate that community therapists may benefit from the use of real-time training even more than standard phone consultation.

Training is considered crucial to implementation, as evidence has shown that clinicians who simply review a treatment manual are unlikely to improve their knowledge and skill to the point of mastery (Herschell et al., 2009), which limits their ability to successfully implement a new intervention. PCIT experts have provided their perspectives regarding critical aspects of training and have indicated that selecting appropriate trainees and engaging in pretraining preparation are important (Scudder & Herschell, 2015). In addition, the majority of experts indicated that an ideal training format would consist of a multiday in-person workshop, with role-plays and video review identified as important training activities to include (Scudder & Herschell, 2015). Despite consensus among experts on some of these critical training areas, there is still much to be learned about the impact of training methods on clinician knowledge, skill, and mastery of PCIT. Results of an ongoing randomized controlled trial (RCT) to compare three different training models within a statewide implementation initiative will help to provide information on best practices for PCIT training (Herschell et al., 2015). Such findings will allow for more evidence-based training practices, which in turn will facilitate the implementation and long-term sustainability of the intervention in community treatment settings.

## 14.4 Cost Analyses

One often-cited barrier to the implementation of evidence-based practices is the higher cost compared to services as usual (Lang & Connell, 2017). These higher costs are generally associated with start-up investments, such as the purchase of manuals and equipment, and initial therapist trainings (Lang & Connell, 2017). However, these costs are not often weighed in relation to the financial benefits that can come from the effective treatment of behavioral health concerns for both the family and society at large. In addition to being an estimated ten times more expensive for families than children without behavior problems (Scott, Knapp, Henderson, & Maughan, 2001), children with externalizing behavior problems may cost society up to \$2 million over their lifetimes if untreated (Cohen, 1998). Given these figures, it is important to consider the costs of interventions for disruptive behaviors relative to their potential benefits to society.

Several studies to date have conducted cost analyses of PCIT. Aos, Lieb, Mayfield, Miller, and Pennucci (2004) evaluated PCIT within a child welfare setting and found a cost-benefit ratio of \$1296-\$4247 per child. That is, PCIT costs \$1296 to implement per child but resulted in an estimated savings of \$4247 within the domains of crime, substance abuse, education, teen pregnancy, teen suicide attempts, child abuse/neglect, and domestic violence (Aos et al., 2004). At a net gain of nearly \$3500, Aos et al. (2004) concluded that PCIT within child welfare was a cost-beneficial program. A later study compared the costs of PCIT with treatment as usual, based on a review of service utilization records within a system of care (Krivelyova, Sukumar, Stephens, & Freeman, 2007). Although PCIT was initially more expensive than treatment as usual, the average cost for course of treatment for one child averaged out to be \$600 less than treatment as usual after 18 months (Krivelyova et al., 2007). These findings suggest that the initial start-up costs are worth the investment and will pay for themselves over the long run (Krivelyova et al., 2007).

Goldfine, Wagner, Branstetter, and McNeil (2008) completed a cost-effectiveness analysis of PCIT using available published data on the associated costs and clinical benefits of PCIT treatment (Goldfine et al., 2008). Findings included an estimated \$14,063.79 in initial costs, including equipment, toys, and therapy room renovations. They also found that PCIT costs approximately \$1025.71 per child, and that it would cost from \$22.07 to \$100.56 to result in a one-point improvement on common assessment measures used in PCIT. Although there are no standards or guidelines to determine what is a reasonable cost for services, Goldfine et al. (2008) argued that these figures are reasonable compared with the substantial costs (both measureable and unmeasurable) to society that result from untreated disruptive behavior disorders.

Since 2012, the Washington State Institute for Public Policy has kept track of and routinely updated cost-benefit analyses of various evidence-based programs within their state, including PCIT. Within their child welfare system, the most recent data (updated in 2017) showed a \$15.00 benefit to cost ratio, indicating that every dollar spent for PCIT services resulted in a \$15 savings across participants, taxpayers, and other stakeholders (Washington State Institute for Public Policy, 2017). Thus, although initial start-up costs are often cited as a barrier to implementing PCIT, results across these various studies support the cost-effectiveness of PCIT.

# 14.5 Adaptations of PCIT

As outlined by Kazdin (1997), once the effectiveness of a treatment has been empirically supported, the next step in treatment development is to test its boundary limits. In line with Kazdin's (1997) model, more recent research has focused on applying PCIT to diverse groups. It is crucial to keep in mind the core features of PCIT and to ensure that any adaptations not stray from these core features. In this vein, Dr. Eyberg outlined guidelines for adapting PCIT to new populations (Eyberg, 2005).

The first defining feature of PCIT is the inclusion of both the parent(s) and child in sessions designed to teach them new ways of positively interacting (Eyberg, 2005). During these sessions, therapists observe and coach the parent within two treatment phases, the first focused on relationship enhancement and the second focused on consistent discipline procedures. This twophased approach based on the Hanf model (Hanf, 1969) distinguishes PCIT from other interventions and is a crucial feature to retain. The second feature of importance is the empirical nature of PCIT. Not only was PCIT developed scientifically through rigorous testing of various treatment components (Eyberg & Robinson, 1982), but PCIT therapists also use measures to track family progress throughout treatment and to adjust the course of treatment for individual family needs. Dr. Eyberg stressed the importance of maintaining this empirical focus by making adaptations not only based on the clinical need of new populations but also based on scientific evidence (Eyberg, 2005). The following sections will describe changes made to the PCIT model for children of different ages and cultural backgrounds, and with different presenting concerns, as well changes in the treatment setting. Each of studies described in the subsequent section has retained the core features of PCIT while adhering to Dr. Eyberg's call for clinically and scientifically informed changes to the original model.

One final detail to note pertains to the language used to describe changes made to a treatment. In general, *tailoring* refers to changes in style or delivery made by the therapist based on the specific needs of an individual case (Eyberg, 2005). Skilled clinicians should tailor PCIT regularly for each of their families, based on the data collected at each session. *Adaptations* are larger changes made to the structure or content of an intervention when the core features are not feasible for use with a specific population (Eyberg, 2005). Finally, *modifications* refer to universal changes made by the treatment developer to the original intervention (Eyberg, 2005). The subsequent sections will describe a combination of adaptations and case studies in which tailoring has occurred.

## 14.5.1 Child Age Adaptations

Specific components of PCIT are appropriate for children between the ages of 2.5 and 7 years due to developmental considerations. As such, changes must be made to some of these components to make them more developmentally appropriate for children who fall outside of this age range. One example has been the adaptation of PCIT for premature infants, who are at a higher risk for developing externalizing behavior problems than infants born full-term (Linsell et al., 2016). Examples of specific changes include having parents use short sentences with developmentally appropriate concepts, and providing gestural cues (e.g., touching a block) when giving a command such as "Give me this blue block," during the PDI phase of treatment (Bagner, Sheinkopf, Hinckley, & Lester, 2009). Research on the effectiveness of PCIT with premature infants has demonstrated positive outcomes in parental stress and depressive symptoms, along with improvements in infant externalizing behaviors, internalizing behaviors, and physiological regulation (Bagner et al., 2009; Graziano, Bagner, Sheinkopf, Vohr, & Lester, 2012).

Early identification and treatment of behavior problems has received increased attention, given the possibility of providing briefer and less intensive interventions to attenuate such problems before childhood. Indeed, evidence suggests that early parent-child interactions, particularly those that may be characteristic of Patterson's coercion model (Patterson, 1976), predict later antisocial behavior and other psychopathology (e.g., Shaw, Gilliom, Ingoldsby, & Nagin, 2003; Shaw, Lacourse, & Nagin, 2005). Therefore, PCIT has also been adapted for infants not born premature, as an intervention to target early behavior problems (Bagner et al., 2016). The Infant Behavior Program is an adaptation of PCIT for infants that preserves the primary aspects of the CDI phase, while eliminating the PDI phase which is not developmentally appropriate for young children (Bagner, Rodríguez, Blake, & Rosa-Olivares, 2013). Families who participated in the Infant displayed Behavior Program significant increases in positive parenting behaviors (e.g., increased praise), more secure attachment behavior (e.g., sensitivity), reductions in infant externalizing and internalizing behaviors, and gains in infant language production (Bagner et al., 2013; Bagner, Coxe, et al., 2016; Bagner, Garcia, & Hill, 2016; Blizzard, Barroso, Ramos, Graziano, & Bagner, 2017).

PCIT adaptations have also been developed for toddlers younger than 2.5 years. Early toddlerhood may be a particularly challenging time for parents, as it is common for children during this stage to have difficulties with tantrums, aggression, and emotion regulation (Comer, Chow, Chan, Cooper-Vince, & Wilson, 2013). Structurally, sessions are often kept to 30-45 min at the beginning of treatment and are gradually lengthened (Kohlhoff & Morgan, 2009). Similar to other adaptations of PCIT with younger children, the CDI phase is emphasized and parents are encouraged to use simple language when practicing the "Do" skills (Dombrowski, Timmer, Blacker, & Urquiza, 2005). The PDI phase of treatment is excluded; however, parents are taught developmentally appropriate PDI concepts (e.g., consequences) throughout treatment to manage behavior problems (Dombrowski et al., 2005; Kohlhoff & Morgan, 2009). Although research for this age range is limited, a published case study and pilot study found that PCIT was effective in increasing positive parenting skills and reducing child disruptive behaviors (Dombrowski et al., 2005; Kohlhoff & Morgan, 2009).

Age adaptations for PCIT have primarily focused on younger children; however, PCIT may also be tailored for older children with behavioral problems (McNeil & Hembree-Kigin, 2010; Stokes, Scudder, Costello, & McNeil, 2017). Older children may present unique challenges in PCIT, as they may be less motivated by parental attention and may not respond as positively as younger children to some of the CDI skills. In addition, there may be distinct variation in their preferred toys during playtime, their frequency of talking, and their size and weight. Within the CDI phase, commonly used toys may not be of interest to older children, but families and the therapist can tailor treatment to find appropriate toys that the older child still enjoys. Forming a strong therapist-child alliance may be particularly useful with older children, and it has been recommended that the therapist lengthen treatment sessions to allow for 5-10 min of therapist-child CDI time (McNeil & Hembree-Kigin, 2010).

As older children may be taller and heavier than younger children, it may be difficult for parents to carry the child to time-out. Adaptations to the PDI phase have been suggested, such as using a longer period of ignoring, incentive charts, and restrictions of privileges (Stokes et al., 2017). A published case study presenting some of these treatment adaptations with an 8-year-old child found that at posttreatment, the child no longer met criteria for oppositional defiant disorder nor had clinically significant internalizing or externalizing behavior problems (Stokes et al., 2017).

# 14.5.2 Diagnosis-Specific Adaptations

While PCIT was primarily developed to address externalizing behavior problems, it is common for children presenting with externalizing behavior problems to have at least one comorbid behavioral health disorder. In fact, one study noted 46% of children diagnosed with oppositional defiant disorder or conduct disorder also met criteria for at least one other disorder (Maughan, Rowe, Messer, Goodman, & Meltzer, 2004). As such, PCIT has been adjusted to better meet the needs of children presenting with a variety of behavioral health concerns.

#### 14.5.2.1 Trauma

Children who experience a traumatic event commonly display a variety of symptoms, including disruptive behaviors, which may be targeted by behavioral parent training programs (Ford et al., 2000). Given its emphasis on both strengthening the parent-child relationship and improving discipline practices, standard PCIT has been recognized by the Kauffmans' Best Practices Project as one of the best treatments for families with a history of abuse; the efficacy of PCIT has been documented for children with diverse trauma histories, including physical abuse, sexual abuse, and witnessing interpersonal violence (IPV).

For families in a coercive cycle of harsh discipline and/or physical abuse, no adaptations have been required, and standard PCIT has been found to teach parents appropriate discipline strategies, strengthen the parent-child relationship, and increase maternal sensitivity (Thomas & Herschell, 2013). Parents with a history of physical abuse who participate in PCIT rapidly increase their use of positive parenting skills, while simultaneously decreasing their use of maladaptive parenting skills in response to appropriate child behavior (Hakman et al., 2009; Thomas & Zimmer-Gembeck, 2012). Similarly, children who witness IPV commonly experience significant behavior problems, and the stressful event may negatively impact the parent-child relationship (Lourenco et al., 2013). Thus, PCIT has been used as a treatment for children who have witnessed IPV (Borrego, Gutow, Reicher, & Barker, 2008; Pearl, 2008; Timmer, Ware, et al., 2010) and within a domestic violence shelter setting (Herschell, Scudder, Schaffner, & Slagel, 2016). PCIT has demonstrated success in strengthening the maternal-child relationship for children exposed to violence, in addition to demonstrating improvements in internalizing and externalizing behaviors in these children (Herschell et al., 2016; Pearl, 2008; Timmer, Ware, et al., 2010). For children with a trauma history who display problematic sexual behaviors, PCIT has been found to be effective in reducing these sexual concerns (Allen, Timmer, & Urquiza, 2016). The efficacy of PCIT for children with

trauma histories has been demonstrated across numerous case studies, pilot studies, and randomized controlled trials.

#### 14.5.2.2 Internalizing Disorders

There is growing evidence that PCIT is an effective treatment for children with specific internalizing disorders: separation anxiety, selective mutism, and depressive symptoms. Previous research suggests that targeting negative parentchild interactions, improving parental attention of child courageous behavior, and teaching ignoring of fearful behavior is an effective strategy at reducing separation anxiety disorder (SAD) symptoms in children (Pincus, Eyberg, & Choate, 2005). PCIT for SAD incorporates a Bravery-Directed Interaction (BDI) component, in which the therapist coaches the family through a hierarchy of exposures during each session (Pincus et al., 2005). The BDI component of treatment is integrated following the CDI phase, when parents often report feeling more confident and ready to assist their child in mastering the exposures (Pincus, Santucci, Ehrenreich, & Eyberg, 2008). An adaptation overview by Pincus et al. (2008) provides additional information on treatment considerations when implementing PCIT with this population. In a pilot study examining the efficacy of this adaptation, children participating in PCIT showed significant decreases in separation anxiety behaviors as well as disruptive behaviors that were maintained at a 3-month follow-up (Choate, Pincus, Eyberg, & Barlow, 2005).

Various components of PCIT have also been adapted to treat children with selective mutism. For example, changes to the DPICS behavioral observation system prompted the creation of the Selective Mutism Behavioral Observation Task (SM-BOTS; Carpenter, Puliafico, Kurtz, Pincus, & Comer, 2014; Kurtz, 2008). The SM-BOTS is similar to the DPICS in that there are three standardized five-minute situations, but differs in that it allows for unobtrusive observations of children with selective mutism who will not talk in front of others. In addition, the DPICS coding scheme was adjusted to account for parent behaviors that are unique to the maintenance of selective mutism (e.g., "mind reading"). This new version of the DPICS coding system is referred to as the Selective Mutism Interactive Coding System (SMICS-R; Carpenter et al., 2014; Kurtz, 2007). Additionally, a Verbal Directed Interaction (VDI) phase was added to the PCIT treatment model, in which parents are coached to promote and support their child's verbal behavior (Carpenter et al., 2014). Pilot data of the adapted version of PCIT for selective mutism delivered both individually and in a group format suggest that the intervention promotes increased verbalizations among children with selective mutism (Carpenter et al., 2014).

An adaptation of PCIT for preschool children with Major Depressive Disorder (MDD) has also been developed based upon the need for more efficacious treatments with this population, and growing research suggesting the importance of parental involvement in treatment for preschool children with MDD (Eyberg, 2005). PCIT-Emotional Development (PCIT-ED) includes an Emotional Development module, in which the therapist coaches the parent in helping their child to identify, label, understand, and regulate their emotions (Lenze, Pautsch, & Luby, 2011). In a pilot study, children who participated in PCIT-ED showed marked improvements in depression severity, internalizing and externalizing symptoms, and functional impairment (Lenze et al., 2011).

# 14.5.2.3 Intellectual and Developmental Disabilities

Disruptive behaviors are common among individuals with intellectual and developmental disabilities and are often sources of stress and strain on the parent-child relationship (Hastings, 2002). PCIT shares many commonalities with other treatments for this population, including the use of praise for positive behaviors, the use of commands and compliance training, and time-out from positive reinforcement (McDiarmid & Bagner, 2005). Specific tailoring may be made to standard PCIT for children with intellectual and developmental disabilities, such as using short repetitive and verbalizations, emphasizing

physical praise, and allotting extra time to defining the behavior if house rules are used (McDiarmid & Bagner, 2005). A randomized controlled trial found that PCIT was successful in reducing disruptive behaviors and parenting stress in young children with an intellectual disability and comorbid oppositional defiant disorder (Bagner & Eyberg, 2007).

#### 14.5.2.4 Chronic Illness

Emerging research suggests that PCIT may also be an appropriate intervention for children with chronic illness and disruptive behaviors. Disruptive behavior in chronically ill children presents a challenge for medical providers and may negatively impact the child's health due to noncompliance with medical regimens (Pinquart & Shen, 2011). A case study examined the use of PCIT for a child with cancer presenting with disruptive behaviors (e.g., tantrums) that adversely influenced his medical evaluations (Bagner, Fernandez, & Eyberg, 2004). Several changes were made to tailor standard PCIT, including using a toy "doctor kit" during CDI, praising positive reactions to "medical behaviors" (e.g., blood drawings), and using a hospital chair as a time-out chair in PDI (Bagner et al., 2004). According to both parent and medical provider report, PCIT led to decreases in the child's disruptive behaviors and greater compliance during medical treatments (Bagner et al., 2004).

#### 14.5.2.5 Autism Spectrum Disorder

In addition to characteristic features such as deficits in social communication, repetitive behavior, and restricted interests (American Psychiatric Association, 2013), children with autism spectrum disorder (ASD) often demonstrate externalsymptoms and behavioral izing problems (Lecavalier, 2006). As such, parent training interventions like PCIT have been examined and supported as an effective method of treating disruptive behaviors in children with ASD (Postorino et al., 2017). Given the focus of this book, Chap. 16 is devoted entirely to outlining relevant research on PCIT for children with ASD. However, it is worth mentioning here that both case studies involving tailored PCIT (e.g.,

Lesack, Bearss, Celano, & Sharp, 2014; Masse, McNeil, Wagner, & Chorney, 2007) and larger group-comparison studies (Ginn, Clionsky, Eyberg, Warner-Metzger, & Abner, 2017; Solomon, Ono, Timmer, & Goodlin-Jones, 2008) have indicated that PCIT can be effective in reducing child disruptive behavior and in improving child compliance for children with ASD.

#### 14.5.3 Culture-Specific Adaptations

Examining the effectiveness of evidence-based treatments in culturally and ethnically diverse groups is an important area of the clinical research. Behavioral health disparities for ethnic minority groups are well documented; however, the development of most psychosocial treatments for children, including PCIT, has been largely based on White families (Butler & Eyberg, 2006). The literature suggests various differences in characteristics, beliefs, and behaviors (e.g., parent help-seeking behaviors, service utilization settings) between ethnic minority groups and White participants in behavioral parent training programs, all of which may impact the effectiveness of treatment and treatment attrition (Butler & Eyberg, 2006). As PCIT use has expanded over the past 40 years, standard PCIT has been adapted to various cultures and minority populations to better fit families' needs.

The use of standard PCIT with Black children and families has resulted in findings largely consistent with those reported for White families (Capage, Bennett, & McNeil, 2008; Fernandez, Butler, & Eyberg, 2011; McNeil, Capage, & Bennett, 2002; Pearl, 2008; Querido, Warner, & Eyberg, 2002). McNeil et al. (2002) discussed differences in parenting values and behaviors, and treatment topics in PCIT with Black children and White children. As found in the majority White culture, an authoritative parenting style has been associated with fewer child behavior problems in this sample of Black families (McNeil et al., 2002). Standard PCIT treatment demonstrated effectiveness for Black families in reducing disruptive behaviors (Capage et al., 2008; Fernandez et al., 2011). This study also yielded no significant differences in diagnosis, treatment participation, treatment length, number of sessions completed, or attrition rates between a White and Black treatment group, when controlling for socioeconomic status (Capage et al., 2008).

Standard PCIT has also shown positive outcomes in an Australian community-based early childhood clinic. In an early study of PCIT conducted outside a university research setting, Phillips, Morgan, Cawthorne, and Barnett (2008) provided PCIT to 43 families with 1.5- to 4-yearolds seeking treatment for disruptive behaviors. Parents were highly satisfied with treatment, and findings suggest decreases in parent-reported child behavior problem intensity and frequency; externalizing and internalizing symptoms; and parenting stress, depression, and anxiety (Phillips et al., 2008). Two additional studies of PCIT in Australia have been published and will be discussed later in the chapter because they both examined an abbreviated format of PCIT (Nixon, Sweeney, Erickson, & Touyz, 2003, 2004).

Child outcomes in a study of PCIT in the Netherlands were also similar to those found in U.S. studies with regard to child disruptive behaviors (Abrahamse et al., 2012). In a study comparing PCIT to a Dutch-developed treatment called Family Creative Therapy, there were significantly greater improvements in parenting skills and child behavior for the families completing PCIT (Abrahamse, Niec, Junger, Boer, & Lindauer, 2016). Additionally, attrition rates were lower for families completing PCIT in this population compared to U.S. studies (Abrahamse et al., 2016). It is worth noting that results suggested greater improvement in both parenting skills and child behavior for PCIT than Family Creative Therapy, and that improvements were better maintained in families who completed PCIT than those who completed Family Creative Therapy or who dropped out of treatment.

The use of standard PCIT has also been examined in Chinese families. Compared to a waitlist control group, families who completed PCIT reported decreases in intensity and frequency of child behavior problems, parenting stress, and inappropriate parenting strategies; increases in positive parenting skills; and changes in the use of corporal punishment at posttreatment (Leung, Tsang, Heung, & Yiu, 2009; Leung, Tsang, Sin, & Choi, 2015). Though these findings are similar to outcomes in American studies and in ethnic minority groups, the authors noted cultural considerations related to the use of PCIT with this sample. The authors indicated that the Chinese parents in the sample appeared hesitant to use praise with their children, struggled with letting the child lead the play, and had difficulty ignoring negative child behavior. In addition, these parents expressed concern that other family members may not agree with or support the use of the child management techniques used in PCIT (Leung et al., 2009).

Chen and Forston (2015) recently examined the use of PCIT in Taiwan. The researchers made very minor cultural changes, which included the addition of culturally appropriate examples in teach sessions. Results suggest that the sample of 44 children (ages 3- to 11-years-old) and their parent(s) who participated in standard PCIT services experienced significantly less child behavior problems at posttreatment (although the effects diminished at the 3-month follow-up). Current research points to PCIT being effective across different Asian samples; however, important differences among Asian cultures and subgroups must continue to be taken into account.

PCIT has been studied with a variety of Hispanic populations. In one study of PCIT with Latino/a families, McCabe, Yeh, Garland, Lau, and Chavez (2005) developed Guidano a Niños Activos (GANA), a version of PCIT culturally adapted for Mexican American families, which emphasizes the importance of carefully assessing culturally influenced concepts (e.g., parent perception of their child's problem and its causes, parenting styles). McCabe and Yeh (2009) then evaluated the effectiveness of GANA compared to standard PCIT and treatment as usual (TAU). They randomly assigned 58 Mexican American children between the ages of 3 and 7 years with behavior problems and their families to the three different treatment modalities. Child behavior problems significantly improved across all three modalities; however, parents who participated in

GANA and PCIT both reported improved parenting skills, as well as decreased parenting stress and negative parenting behaviors compared to TAU. There were no significant differences between GANA and PCIT. These findings may be partly due to insufficient power to detect a difference between GANA and PCIT. However, it is also possible that PCIT is robust to cultural modifications and small adjustments can be made without affecting outcomes (McCabe & Yeh, 2009).

PCIT has also been adapted for Puerto Rican children with hyperactivity and other behavior problems (Matos, Torres, Santiago, Jurado, & Rodriguez, 2006). The researchers made adaptations to the standard PCIT protocol, including increased length of treatment sessions, additional check-in time, and the use of culturally appropriate metaphors. The adapted PCIT protocol was tested in an efficacy study in which 32 families were randomly assigned to either PCIT or a waitlist control group. Families in the PCIT group demonstrated significant decreases in attentiondeficit/hyperactivity disorder symptoms, child behavior problems, and parenting stress as well as significant improvements in parent and family functioning, parent satisfaction with treatment, and positive parenting practices (Matos, Bauermeister, & Bernal, 2009). These treatment gains were maintained at the 3.5-month follow-up.

PCIT has also been adapted for American Indians and Alaska Natives (AI/AN; BigFoot & Funderburk, 2011). The components of PCIT were set within the Circle Theory and Old Wisdom philosophies that regard children as the center of the circle and that they need warmth and encouragement from family members and elders (BigFoot & Funderburk, 2011). AI/AN populations tend to intuitively understand foundational aspects of PCIT, including the reinforcement of desirable behaviors and the importance of CDI. In addition, their tradition of oral storytelling helps them to reduce questions and describe their child's behavior. In PCIT with AI/AN populations, it is helpful to view and explain discipline as teaching the child self-control and learning about rules, rather than describing it as punishment. It may also be helpful for rapport building with AI/AN individuals to carefully assess their parenting beliefs, to avoid using excess jargon or focusing on the technical aspects of PCIT, to include additional child caregivers, and to not be too intrusive or controlling in live coaching (BigFoot & Funderburk, 2011).

# 14.5.4 Parental Behavioral Health Considerations

Recent research has examined the impact that parental behavioral health may have on the ability to engage in standard PCIT (Pemberton, Kramer, Borrego, & Owen, 2013). Although no specific adaptations have been recommended for parents with attention-deficit/hyperactivity disorder, research has found that these symptoms are associated with lower parental engagement and reduced use of positive parenting, as well as greater levels of inconsistent discipline (Chronis-Tuscano et al., 2008). Additional research has found that effective doses of medication improved parental ability to decrease overall use of commands (Babinski et al., 2014), suggesting that the treatment of caregiver attention-deficit/hyperactivity disorder symptoms may help with their ability to engage effectively in PCIT.

Mothers experiencing depressive symptoms have been shown to report more severe child behavior problems at pretreatment, but also reported greater reductions in behavior problems following treatment than mothers not experiencing depressive symptoms (Timmer et al., 2011). Although no adaptations have been recommended for mothers experiencing depressive symptoms, this research underscores the importance of considering how caregiver characteristics may impact their reporting of child behavior and their ability to engage in therapy.

One final population of recent interest has been parents with intellectual disabilities, given concerns that they may have more difficulty understanding and learning PCIT skills. Recommendations for tailoring treatment with this population include simplifying coaching instructions and focusing on a single skill per coaching session (Chengappa, McNeil, Norman, Quetsch, & Travers, 2017). Additionally, an increase in the frequency of treatment may help reinforce skills, allowing parents with intellectual disabilities to maintain their skill use (Chengappa et al., 2017).

# 14.5.5 PCIT as a Preventative Intervention

As PCIT has been shown to be effective for a variety of presenting concerns, recent efforts have focused on the use of PCIT as a preventative intervention to alleviate subclinical concerns and/or for at-risk individuals. To date, this area of research has focused on the prevention of externalizing behavior problems and child maltreatment—the two domains in which PCIT has the largest evidence base—in addition to the prevention of developmental/language delays.

Changes to the PCIT model for the prevention of externalizing behavior problems have focused primarily on adjusting the treatment format. For example, one study examined the effect of two brief versions of PCIT administered in a primary care setting (Berkovits, O'Brien, Carter, & Eyberg, 2010). The first version was a selfdirected learning condition in which parents were mailed materials on PCIT skills and provided with information on how to implement them. The second version was a four-session group education condition in which parents obtained information on CDI and PDI during two sessions each. Both versions yielded improved parental reports of child behavior and high rates of parent satisfaction (Berkovits et al., 2010). Adapting PCIT for a more universal approach to prevention of child externalizing behaviors has also yielded promising results. For instance, non-parent paraged 19-23 years demonstrated ticipants improved parenting knowledge following completion of a PCIT-based pre-parenting course (Lee, Wilsie, & Brestan-Knight, 2011). In addition, increases in positive skills (e.g., labeled praise) and decreases in negative skills (e.g., criticism) were noted for preschool and kindergarten teachers who completed a PCIT-based

training (Gershenson, Lyon, & Budd, 2010). Although additional research directly assessing child behavior is needed, current evidence suggests that PCIT can successfully be adapted as a preventative intervention for externalizing behaviors.

PCIT has also shown promise as a preventative intervention for child maltreatment. Findings from several studies of families with a history of child maltreatment have noted the typical PCIT outcomes (e.g., improved parent-child relationships, increased use of positive parenting skills) in addition to diminished likelihood of maltreatment recidivism (Chaffin, Funderburk, Bard, Valle, & Gurwitch, 2011; Thomas & Zimmer-Gembeck, 2011). It is important to note that these studies demonstrated the prevention of future maltreatment (i.e., recidivism) rather than prevention of initial instances of maltreatment. As such, it can be difficult to distinguish between when PCIT is functioning as a standard intervention for maltreatment and when it is functioning as a preventative intervention. Two studies have bolstered support for the preventative aspect of PCIT for child maltreatment by demonstrating improvements in child behavior and parenting skills, as well as decreases in parenting stress for samples of families at risk for maltreatment but without histories of maltreatment (Allen, Timmer, & Urquiza, 2014; Lanier, Kohl, Benz, Swinger, & Drake, 2014).

Given the association between language delays and externalizing behavior problems (Tempel, Wagner, & McNeil, 2009), research has investigated the impact of PCIT on language deficits. Results of several studies have shown increases in both the frequency and type of verbalizations. These improvements were noted for both infants and for children at risk for language deficits (Allen & Marshall, 2011; Garcia, Bagner, Pruden, & Nichols-Lopez, 2015). These findings are hypothesized to be the direct result of the skills that parents are taught to use in PCIT. Namely, parents are asked to use positive communications skills with their children throughout the day, which results in a languagerich environment and more frequent modeling of appropriate verbalizations (Tempel et al., 2009).

Evidence has shown that parental use of positive communication skills mediates the relation between PCIT treatment and the noted improvements in child language production (Bagner, Coxe, et al., 2016).

#### 14.5.6 Format Adaptations

As with most psychosocial interventions, particularly with youth, a high rate of families receiving PCIT services leave treatment before they graduate (Fernandez & Eyberg, 2005, 2009; Lanier et al., 2011). One strategy to address potential barriers to treatment and to combat high rates of attrition has been the development of novel delivery methods for PCIT. Some of these format adaptations have yielded promising outcomes as preventative interventions (e.g., Berkovits et al., 2010; Lee et al., 2011; Scudder, McNeil, Chengappa, & Costello, 2014) and are described in the previous section of this chapter. A variety of format adaptations designed to treat families with a history of child maltreatment and/ or with clinical levels of child behavior problems are reviewed below.

# 14.5.6.1 Abbreviated PCIT

Although PCIT delivered in efficacy trials generally lasts 12-14 sessions, it has been found to take longer than anticipated for parents to reach mastery criteria when delivered in community settings (Franco, Soler, & McBride, 2005). As such, researchers have explored the use of an abbreviated version of PCIT to expedite treatment and reduce travel burdens for families. Abbreviated PCIT included the use of didactic videotapes in place of CDI and PDI teach sessions, in addition to five alternating telephone consultations and face-to-face sessions (Nixon et al., 2003, 2004). Families of children ages 3-5 years with disruptive behaviors were randomized to standard PCIT, abbreviated PCIT, or a waitlist control.

Results indicated improvements in child behavior and parenting skills for families in both the standard PCIT and abbreviated PCIT groups, with greater improvements for both groups relative to the waitlist control (Nixon et al., 2003). The noted effects were slightly greater for the standard PCIT group than the abbreviated PCIT group immediately following treatment, but were not different at the 6-month follow-up period (Nixon et al., 2003). A later follow-up study demonstrated that these treatment gains were maintained at 1 year and 2 years posttreatment for families in both the standard and abbreviated PCIT groups (Nixon et al., 2004).

#### 14.5.6.2 Intensive PCIT

Similar to abbreviated PCIT, researchers have also tested the feasibility of an intensive version of PCIT. This adaptation consisted of daily 90-min sessions across 2 weeks, for a total of 10 sessions (Graziano et al., 2015). Eleven families with children ages 3-8 years with clinical levels of externalizing behavior problems participated in the feasibility trial. Results indicated significant increases in parental use of positive skills, as well as significant decreases in parental use of negative skills and parenting stress. Significant improvements were also noted in parental use of effective discipline strategies and in child behavior. In addition, effect sizes for all outcome domains (i.e., child behavior and parenting skills) were greater for intensive PCIT than those reported in standard PCIT outcome studies. Also of note, an impressively high rate of session attendance was reported, with only one session missed out of 110 total sessions across all families (Graziano et al., 2015).

#### 14.5.6.3 Group PCIT

As costs are often cited as a barrier to community implementation of PCIT (Christian, Niec, Acevedo-Polakovich, & Kassab, 2014), several researchers have examined group-based PCIT as a method of increasing cost-effectiveness. Given the time required to coach individual parent-child dyads, groups of 3–6 dyads have been found to be most manageable for group PCIT (Niec, Hemme, Yopp, & Brestan, 2005). Additionally, it has been recommended that each session last between 90 min and 2 h, with the first session focused on establishing rapport and group guidelines before moving onto the CDI teach session (Niec et al., 2005). Other recommendations include coaching each parent for 15–20 min each while other parents practice coding, and transitioning the entire group to PDI after five CDI coaching sessions. A full description of a protocol for group PCIT can be found in Niec et al. (2005).

Group PCIT has been examined as a pilot feasibility study (Nieter, Thornberry, & Brestan-Knight, 2013) and has also been compared with a treatment as usual group (e.g., psychoeducational content on stress management, communication, discipline; Foley, McNeil, Norman, & Wallace, 2016) and with standard PCIT (Niec, Barnett, Prewett, & Shanley, 2016). In all three studies, families who participated in group PCIT demonstrated significant reductions in child behavior and parenting stress, as well as improvements in parenting skills (Foley et al., 2016; Niec et al., 2016; Nieter et al., 2013). Improvements in child behavior and the use of positive parenting skills were found to be greater for group PCIT than for treatment as usual, although no group differences were noted in parental use of negative skills (Foley et al., 2016). The positive child and parent outcomes noted for group PCIT were no different than the outcomes noted for standard PCIT (Niec et al., 2016). These results suggest that PCIT can be effectively delivered in a group format to increase the number of families who benefit from treatment at one time.

### 14.5.6.4 In-home PCIT

Another strategy to reduce attrition from PCIT has been to deliver PCIT in the home. Not only can this adaptation help to eliminate transportation barriers and reach more families, but it can also help with the generalization of skills to the home setting. Although results of one study found that 1 h per week of in-home coaching in addition to standard PCIT did not result in additional improvements above and beyond standard PCIT alone (Timmer, Zebell, Culver, & Urquiza, 2010), other studies have yielded more promising results. Several studies have found significant improvements in child behavior, increases in parent use of positive skills and effective discipline practices pretreatment to posttreatment, and high rates of parent satisfaction (Galanter et al., 2012; Gresl, Fox, & Fleischmann, 2014; Ware, McNeil, Masse, & Stevens, 2008). Additionally, reduced rates of child abuse potential in a sample of families at risk for child maltreatment were noted following completion of in-home PCIT (Galanter et al., 2012). Given the potential of in-home PCIT to reduce barriers to treatment, two teams of inhome PCIT providers were included in a statewide implementation of PCIT across Delaware (Beveridge et al., 2015).

# 14.5.6.5 Teacher-Child Interaction Training (TCIT)

Given its effectiveness in improving child behavior in the home, an early adaptation of PCIT for the classroom resulted in the development of TCIT. In TCIT, teachers first go through a group training that covers the foundational principles and skills of PCIT before moving onto the practice of skills within small groups (Lyon et al., 2009). Following the initial training, teachers implement the skills in the classroom during the CDI phase. Rather than eliminating their use of negative skills such as commands and questions, teachers are instructed to use these skills more sparingly and in a meaningful way that enhances the learning environment. This is a key difference from standard PCIT, in which parents are instructed to eliminate their use of negative skills (Lyon et al., 2009). The PDI phase of treatment has also been adapted and termed Teacher-Directed Interaction. During this phase, teachers are instructed to use effective commands, in addition to a time-out like procedure called Sit and Watch, for oppositional or disruptive behaviors (Lyon et al., 2009). Given the constraints of a classroom setting, TCIT coaches remain in the classroom and provide a combination of verbal and written feedback to assist teachers in the use of their skills (Lyon et al., 2009), rather than using the standard PCIT bug-in-the-ear coaching device.

Studies examining outcomes for classrooms using TCIT have yielded promising findings. Consistently, results indicate increased teacher use of positive attention and decreased use of negative attention (Fernandez et al., 2015; Garbacz, Zychinski, Feuer, Carter, & Budd, 2014; Lyon et al., 2009; Tiano & McNeil, 2006). Improvements in child behavior, less teacher distress associated with child misbehavior (Tiano & McNeil, 2006), and high levels of teacher satisfaction (Fernandez et al., 2015; Lyon et al., 2009) have also been noted.

# 14.6 Conclusion

PCIT is a well-researched intervention, with substantial support demonstrating positive outcomes for diverse populations and in a variety of settings. The main principles and skills emphasized in PCIT are versatile, allowing for relative ease in adapting the treatment for new groups. Despite advances in various domains of research, PCIT remains under-implemented and under-utilized.

In addition to continuing research that extends PCIT to new populations, future efforts should focus on improving the availbility of and access to PCIT. Such efforts should include continued research on implementation of PCIT in new locations as well as research on best practices for the sustainability of PCIT where it has already been implemented. Given the noted effectiveness of PCIT for both behavioral health and child welfare-related concerns, researchers should consider identifying methods to promote integration within state or local service systems. One final area of critical importance is the dissemination of information on the cost-effectiveness of PCIT to policy makers and system-level stakeholders as a means of advocating for the financing of additional PCIT programs. All of these efforts will increase the availability of PCIT services to the wide range of diverse families who may benefit from such services.

# References

Abrahamse, M. E., Junger, M., Chavannes, E., Coelman, F. J., Boer, F., & Lindauer, R. J. (2012). Parent-child interaction therapy for preschool children with disruptive behaviour problems in the Netherlands. *Child* and Adolescent Psychiatry and Mental Health, 6, 1–9. https://doi.org/10.1186/1753-2000-6-24

- Abrahamse, M. E., Niec, L. N., Junger, M., Boer, F., & Lindauer, R. J. L. (2016). Risk factors for attrition from an evidence-based parenting program: Findings from the Netherlands. *Children and Youth Services Review*, 64, 42–50. https://doi.org/10.1016/j. childyouth.2016.02.025
- Allen, B., Timmer, S., & Urquiza, A. (2016). Parent-child interaction therapy for sexual concerns of maltreated children: A preliminary investigation. *Child Abuse* and Neglect, 56, 80–88. https://doi.org/10.1016/j. chiabu.2016.04.008
- Allen, B., Timmer, S. G., & Urquiza, A. J. (2014). Parentchild interaction therapy as an attachment-based intervention: Theoretical rationale and pilot data with adopted children. *Children and Youth Services Review*, 47(P3), 334–341. https://doi.org/10.1016/j. childyouth.2014.10.009
- Allen, J., & Marshall, C. R. (2011). Parent-child interaction therapy (PCIT) in school-aged children with specific language impairment. *International Journal of Language & Communication Disorders*, 46(4), 397– 410. https://doi.org/10.3109/13682822.2010.517600
- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: American Psychiatric Association.
- Aos, S., Lieb, R., Mayfield, J., Miller, M., & Pennucci,
   A. (2004). Benefits and costs of prevention and early intervention programs for youth. Olympia,
   WA. Washington State Institute for Public Policy
- Babinski, D. E., Waxmonsky, J. G., Waschbusch, D. A., Humphrey, H., Alfonso, A., Crum, K. I., ... Pelham, W. E. J. (2014). 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. Journal of Child and Adolescent Psychopharmacology, 24(10), 582–585. doi: https://doi.org/10.1089/cap.2014.0092
- Bagner, D., Fernandez, M., & Eyberg, S. (2004). Parentchild interaction therapy and chronic illness: A case study. *Journal of Clinical Psychology in Medical Settings*, 11(1), 1–6. https://doi.org/10.1023/ B:JOCS.0000016264.02407.fd
- Bagner, D. M., Coxe, S., Hungerford, G. M., Garcia, D., Barroso, N. E., Hernandez, J., & Rosa-Olivares, J. (2016). Behavioral parent training in infancy: A window of opportunity for high-risk families. *Journal* of Abnormal Child Psychology, 44(5), 901–912. https://doi.org/10.1007/s10802-015-0089-5
- Bagner, D. M., & Eyberg, S. M. (2007). Parent-child interaction therapy for disruptive behavior in children with mental retardation: A randomized controlled trial. *Journal of Clinical Child and Adolescent Psychology*, 36(3), 418–429. https://doi. org/10.1080/15374410701448448
- Bagner, D. M., Garcia, D., & Hill, R. (2016). Direct and indirect effects of behavioral parent training on infant language production. *Behavior Therapy*, 47(2), 184– 197. https://doi.org/10.1016/j.beth.2015.11.001

- Bagner, D. M., Rodríguez, G. M., Blake, C. A., & Rosa-Olivares, J. (2013). Home-based preventive parenting intervention for at-risk infants and their families: An open trial. *Cognitive and Behavioral Practice*, 20(3), 334–348. https://doi.org/10.1016/j.cbpra.2012.08.001
- Bagner, D. M., Sheinkopf, S. J., Hinckley, M., & Lester, B. M. (2009). Parent-child interaction therapy for children born premature: A case study and illustration of vagal tone as a physiological measure of treatment outcome. *Cognitive and Behavioral Practice*, 16(4), 468–477. https://doi.org/10.1016/j.cbpra.2009.05.002. Parent-Child
- Barnett, M. L., Niec, L. N., & Acevedo-Polakovich, I. D. (2014). Assessing the key to effective coaching in Parent-child interaction therapy: The therapist-parent interaction coding system. *Journal of Psychopathology* and Behavioral Assessment, 36(2), 211–223. https:// doi.org/10.1007/s10862-013-9396-8
- Bean, A. W., & Roberts, M. W. (1981). The effect of timeout release contingencies on changes in child noncompliance. *Journal of Abnormal Child Psychology*, 9, 95–105.
- Berkovits, M. D., O'Brien, K. A., Carter, C. G., & Eyberg, S. M. (2010). Early identification and intervention for behavior problems in primary care: A comparison of two abbreviated versions of parent-child interaction therapy. *Behavior Therapy*, 41(3), 375–387. https:// doi.org/10.1016/j.beth.2009.11.002
- Bernhardt, A., & Forehand, R. (1975). The effects of labeled and unlabeled praise upon lower and middle class children. *Journal of Experimental Child Psychology*, 19, 536–543.
- Beveridge, R. M., Fowles, T. R., Masse, J. J., McGoron, L., Smith, M. A., Parrish, B. P., ..., & Widdoes, N. (2015). State-wide dissemination and implementation of parent-child interaction therapy (PCIT): Application of theory. Children and Youth Services Review, 48, 38–48. doi: https://doi.org/10.1016/j. childyouth.2014.11.013
- BigFoot, D. S., & Funderburk, B. W. (2011). Honoring children, making relatives: The cultural translation of parent-child interaction therapy for American Indian and Alaska Native Families. *Journal of Psychoactive Drugs*, 43(4), 309–318. https://doi.org/10.1080/02791 072.2011.628924
- Blizzard, A. M., Barroso, N. E., Ramos, F. G., Graziano, P. A., & Bagner, D. M. (2017). Behavioral parent training in infancy: What about the parent-infant relationship? *Journal of Clinical Child and Adolescent Psychology*, 1–13. https://doi.org/10.1080/15374416. 2017.1310045
- Boggs, S. R., Eyberg, S. M., Edwards, D., Rayfield, A., Jacobs, J., Bagner, D., & Hood, K. K. (2005). Outcomes of Parent-child interaction therapy: A comparison of dropouts and treatment completers 1-3 years after treatment. *Child and Family Behavior Therapy*, 26(4), 1–22. https://doi.org/10.1300/J019v26n04\_01
- Borrego, J., Gutow, M. R., Reicher, S., & Barker, C. H. (2008). Parent-child interaction therapy with domestic violence populations. *Journal of Family*

Violence, 23(6), 495–505. https://doi.org/10.1007/ s10896-008-9177-4

- Brestan, E. V., Eyberg, S. M., Boggs, S. R., & Algina, J. (1997). Parent-child interaction therapy: Parents' perceptions of untreated siblings. *Child and Family Behavior Therapy*, 19(3), 13–28. https://doi. org/10.1300/J019v19n03\_02
- Budd, K. S., Hella, B., Bae, H., Meyerson, D. A., & Watkin, S. C. (2011). Delivering parent-child interaction therapy in an urban community clinic. *Cognitive* and Behavioral Practice, 18(4), 502–514. https://doi. org/10.1016/j.cbpra.2010.12.002
- Butler, A. M., & Eyberg, S. M. (2006). Parent-child interaction therapy and ethnic minority children. *Vulnerable Children and Youth Studies*, 1(3), 246–255. https://doi.org/10.1080/17450120600973577
- Bahl, A. B., Spaulding, S. A., & McNeil, C. B. (1999). Treatment of noncompliance using parent child interaction therapy: A data-driven approach. *Education* and Treatment of Children, 146–156
- Capage, L. C., Bennett, G. M., & McNeil, C. B. (2008). A comparison between African American and Caucasian children referred for treatment of disruptive behavior disorders. *Child and Family Behavior Therapy*, 23(1), 1–14. https://doi.org/10.1300/J019v23n01
- Carpenter, A. L., Puliafico, A. C., Kurtz, S. M. S., Pincus, D. B., & Comer, J. S. (2014). Extending parent-child interaction therapy for early childhood internalizing problems: New advances for an overlooked population. *Clinical Child and Family Psychology Review, 17*(4), 340–356. https://doi.org/10.1007/s10567-014-0172-4
- Chadwick Center for Children and Families. (2004). Closing the quality chasm in child abuse treatment: Identifying and disseminating best practices. San Diego, CA.
- Chaffin, M., Funderburk, B., Bard, D., Valle, L., & Gurwitch, R. (2011). A combined motivation and parent-child interaction therapy package reduces child welfare recidivism in a randomized dismantling field trial. *Journal of Consulting and Clinical Psychology*, 79(1), 84–95. https://doi.org/10.1037/a0021227
- Chen, Y. C., & Fortson, B. L. (2015). Predictors of treatment attrition and treatment length in parent-child interaction therapy in Taiwanese families. *Children* and Youth Services Review, 59, 28–37. https://doi. org/10.1016/j.childyouth.2015.10.009
- Chengappa, K., McNeil, C. B., Norman, M., Quetsch, L. B., & Travers, R. (2017). Efficacy of parent-child interaction therapy with parents with intellectual disability. *Child and Family Behavior Therapy*, 39(4), 253–282.
- Choate, M. L., Pincus, D. B., Eyberg, S. M., & Barlow, D. H. (2005). Parent-child interaction therapy for treatment of separation anxiety disorder in young children: A pilot study. *Cognitive and Behavioral Practice*, 12(1), 126–135.
- Christian, A. S., Niec, L. N., Acevedo-Polakovich, I. D., & Kassab, V. A. (2014). Dissemination of an evidencebased parenting program: Clinician perspectives on training and implementation. *Children and Youth*

*Services Review*, *43*, 8–17. https://doi.org/10.1016/j. childyouth.2014.04.005

- Chronis-Tuscano, A., Raggi, V. L., Clarke, T. L., Rooney, M. E., Diaz, Y., & Pian, J. (2008). Associations between maternal attention-deficit/hyperactivity disorder symptoms and parenting. *Journal of Abnormal Child Psychology*, 36(8), 1237–1250. https://doi. org/10.1111/j.1747-0285.2012.01428.x.Identification
- Cohen, M. A. (1998). The monetary value of saving a high-risk youth. *Journal of Quantitative Criminology*, 14, 5–33.
- Comer, J. S., Chow, C., Chan, P. T., Cooper-Vince, C., & Wilson, L. A. S. (2013). Psychosocial treatment efficacy for disruptive behavior problems in very young children: A meta-analytic examination. *Journal* of the American Academy of Child and Adolescent Psychiatry, 52(1), 26–36. https://doi.org/10.1016/j. jaac.2012.10.001
- Danko, C. M., Brown, T., Van Schoick, L., & Budd, K. S. (2016). Predictors and correlates of homework completion in parent-child interaction therapy. *Child & Youth Care Forum*, 45(3), 467–485. https://doi. org/10.1007/s10566-015-9339-5
- Danko, C. M., Garbacz, L. L., & Budd, K. S. (2016). Outcomes of parent-child interaction therapy in an urban community clinic: A comparison of treatment completers and dropouts. *Children and Youth Services Review*, 60, 42–51. https://doi.org/10.1016/j. childyouth.2015.11.007
- Dombrowski, S. C., Timmer, S. G., Blacker, D. M., & Urquiza, A. J. (2005). A positive behavioural intervention for toddlers: Parent-child attunement therapy. *Child Abuse Review*, 14, 132–151. https://doi. org/10.1002/car.888
- Eisenstadt, T. H., Eyberg, S. M., McNeil, C. B., Newcomb, K., & Funderburk, B. (1993). Parent-child interaction therapy with behavior problem children: Relative effectiveness of two stages and overall treatment outcome. *Journal of Clinical Child Psychology*, 22(1), 42–51. https://doi.org/10.1207/s15374424jccp2201
- Eyberg, S., Boggs, S., & Jaccard, J. (2014). Does maintenance treatment matter? *Journal of Abnormal Child Psychology*, 42(3), 355–366. https://doi.org/10.1007/ s10802-013-9842-9
- Eyberg, S., Edwards, D., Boggs, S., & Foote, R. (1998). Maintaining the treatment effects of parent training: The role of booster sessions and other maintenance strategies. *Clinical Psychology Science and Practice*, 5(4), 544–554. https://doi. org/10.1111/j.1468-2850.1998.tb00173.x
- Eyberg, S. M. (2005). Tailoring and adapting parent-child interaction therapy to new populations. *Education and Treatment of Children*, 28(2), 197–201.
- Eyberg, S. M., Funderburk, B. W., Hebree-Kigin, T. L., McNeil, C. B., Querido, J. G., & Hood, K. K. (2001). Parent-child interaction therapy with behavior problem children: One and two year maintenance of treatment effects in the family. *Child and Family Behavior Therapy*, 23(4), 1–20 Retrieved from http://www.tandfonline.com/doi/abs/10.1300/J019v23n04\_01

- Eyberg, S. M., Funderburk, B. W., McNeil, C. B., Niec, L. N., Urquiza, A. J., & Zebell, N. M. (2009). Training guidelines for parent child interaction therapy.
- Eyberg, S. M., & Matarazzo, R. G. (1980). Training parents as therapists: A comparison between individual parent-child interaction training and parent group didactic training. *Journal of Clinical Psychology*, 36(2), 492–499. https://doi.org/10.1002/ jclp.6120360218
- Eyberg, S. M., Nelson, M. M., Ginn, N. C., Bhuiyan, N., & Boggs, S. R. (2013). Dyadic Parent-Child Interaction Coding System: Comprehensive manual for research and training (4th ed.). Gainesville, FL: PCIT International.
- Eyberg, S. M., & Pincus, D. (1999). Eyberg child behavior inventory and Sutter-Eyberg student behavior inventory-revised: Professional manual. Lutz, FL: Psychological Assessment Resources.
- Eyberg, S. M., & Robinson, E. A. (1982). Parent-Child Interaction Training: Effects on family functioning. *Journal of Clinical Child Psychology*, 11(2), 130–137. https://doi.org/10.1080/15374418209533076
- Eyberg, S., Nelson, M., & Boggs, S. (2008). Evidencebased psychosocial treatments for children and adolescents with disruptive behavior. *Journal of Clinical Child and Adolescent Psychology*, 37(1), 215. https:// doi.org/10.1080/15374416.2016.1146990
- Fernandez, M. A., Adelstein, J. S., Miller, S. P., Areizaga, M. J., Gold, D. C., Sanchez, A. L., ..., & Gudiño, O. G. (2015). Teacher-Child Interaction Training: A pilot study with random assignment. Behavior Therapy, 46(4), 463–477. doi: https://doi.org/10.1016/j. beth.2015.02.002
- Fernandez, M. A., Butler, A. M., & Eyberg, S. M. (2011). Treatment outcome for low socioeconomic status African American families in parent-child interaction therapy: A pilot study. *Child and Family Behavior Therapy*, 33(1), 32–48. https://doi.org/10.1080/07317 107.2011.545011
- Fernandez, M. A., & Eyberg, S. M. (2005). Keeping families in once they've come through the door: Attrition in parent-child interaction therapy. *Journal of Early and Intensive Behavior Intervention*, 2(3), 207–212.
- Fernandez, M. A., & Eyberg, S. M. (2009). Predicting treatment and follow-up attrition in parent-child interaction therapy. *Journal of Abnormal Child Psychology*, 37(3), 431–441. https://doi.org/10.1007/ s10802-008-9281-1
- Foley, K., McNeil, C. B., Norman, M., & Wallace, N. M. (2016). Effectiveness of group format parent-child interaction therapy compared to treatment as usual in a community outreach organization. *Child and Family Behavior Therapy*, 38(4), 279–298. https://doi.org/10. 1080/07317107.2016.1238688
- Ford, J. D., Racusin, R., Ellis, C. G., Daviss, W. B., Reiser, J., Fleischer, A., & Thomas, J. (2000). Child maltreatment, other trauma exposure, and posttraumatic symptomatology among children with oppositional defiant and attention deficit hyperactivity disorders. *Child Maltreatment*, 5(3), 205–217.

- Franco, E., Soler, R. E., & McBride, M. (2005). Introducing and evaluating parent-child interaction therapy in a system of care. *Child and Adolescent Psychiatric Clinics of North America*, 14(2), 351–366. https://doi.org/10.1016/j.chc.2004.11.003
- Funderburk, B., Chaffin, M., Bard, E., Shanley, J., Bard, D., & Berliner, L. (2015). Comparing client outcomes for two evidence-based treatment consultation strategies. *Journal of Clinical Child and Adolescent Psychology*, 44(5), 730–741. https://doi.org/10.1080/ 15374416.2014.910790
- Funderburk, B. W., & Eyberg, S. M. (2011). Parent-child interaction therapy. In J. C. Norcross, G. R. VandenBos, & D. K. Freedheim (Eds.), *History of psychotherapy: Continuity and change* (2nd ed.). Washington, DC: American Psychological Association.
- Funderburk, B. W., Ware, L. M., Altshuler, E., & Chaffin, M. (2008). Use and feasibility of telemedicine technology in the dissemination of parent-child interaction therapy. *Child Maltreatment*, *13*(4), 377–382. https:// doi.org/10.1177/1077559508321483
- Galanter, R., Self-Brown, S., Valente, J. R., Dorsey, S., Whitaker, D. J., Bertuglia-Haley, M., & Prieto, M. (2012). Effectiveness of parent-child interaction therapy delivered to at-risk families in the home setting. *Child and Family Behavior Therapy*, 34(3), 177–196. https://doi.org/10.1080/07317107.2012.707079
- Garbacz, L. L., Zychinski, K. E., Feuer, R. M., Carter, J. S., & Budd, K. S. (2014). Effects of teacher-child interaction therapy (TCIT) on teacher ratings of behavior change. *Psychology in the Schools*, 51(8), 850–865. https://doi.org/10.1002/pits.21788
- Garcia, D., Bagner, D. M., Pruden, S. M., & Nichols-Lopez, K. (2015). Language production in children with and at risk for delay: Mediating role of parenting skills. *Journal of Clinical Child and Adolescent Psychology*, 44(5), 814–825. https://doi.org/10.1080/1 5374416.2014.900718
- Gershenson, R. A., Lyon, A. A., & Budd, K. S. (2010). Promoting positive interactions in the classroom: Adapting parent-child interaction therapy as a universal prevention program. *Education and Treatment* of Children, 33(2), 261–287. https://doi.org/10.1353/ etc.0.0092
- Ginn, N. C., Clionsky, L. N., Eyberg, S. M., Warner-Metzger, C., & Abner, J. P. (2017). Child-directed interaction training for young children with autism spectrum disorders: parent and child outcomes. *Journal of Clinical Child and Adolescent Psychology*, 46(1), 101–109. https://doi.org/10.1080/15374416.20 15.1015135
- Goldfine, M. E., Wagner, S. M., Branstetter, S. A., & McNeil, C. B. (2008). Parent-child interaction therapy: An examination of cost-effectiveness. *Journal* of Early and Intensive Behavior Intervention, 5(1), 119–141. https://doi.org/10.1037/h0100414
- Graziano, P. A., Bagner, D. M., Sheinkopf, S. J., Vohr, B. R., & Lester, B. M. (2012). Evidence-based intervention for young children born premature: Preliminary evidence for associated changes in physiological regulation. *Infant Behavior & Development*,

35(3), 417–428. https://doi.org/10.1016/j.infbeh. 2012.04.001

- Graziano, P. A., Bagner, D. M., Slavec, J., Hungerford, G., Kent, K., Babinski, D., ..., & Pasalich, D. (2015).
  Feasibility of intensive parent-child interaction therapy (I-PCIT): Results from an open trial. Journal of Psychopathology and Behavioral Assessment, 37(1), 38–49. doi: https://doi.org/10.1007/s10862-014-9435-0
- Gresl, B. L., Fox, R. A., & Fleischmann, A. (2014). Home-based Parent-Child Therapy in low-income African American, Caucasian, and Latino families: A comparative examination of treatment outcomes. *Child and Family Behavior Therapy*, *36*(1), 33–50. https://doi.org/10.1080/07317107.2014.878193
- Hakman, M., Chaffin, M., Funderburk, B., & Silovsky, J. F. (2009). Change trajectories for parent-child interaction sequences during parent-child interaction therapy for child physical abuse. *Child Abuse and Neglect*, 33(7), 461–470. https://doi.org/10.1016/j. chiabu.2008.08.003
- Hanf, C. (1969). A two-stage program for modifying maternal controlling during mother-child (M-C) interaction. In Paper presented at the meeting of the Western Psychological Association. Vancouver.
- Harwood, M. D., & Eyberg, S. M. (2006). Childdirected interaction: Prediction of change in impaired mother-child functioning. *Journal of Abnormal Child Psychology*, 34(3), 335–347. https://doi.org/10.1007/ s10802-006-9025-z
- Hastings, R. P. (2002). Parental stress and behaviour problems of children with developmental disability. *Journal of Intellectual and Developmental Disability*, 27(3), 149–160. https://doi.org/10.1352/ 0895-8017(2002)107<0116:PPIFOC>2.0.CO;2
- Herschell, A. D., Capage, L. C., Bahl, A. B., & McNeil, C. B. (2008). The role of therapist communication style in parent-child interaction therapy. *Child and Family Behavior Therapy*, 30(1), 13–35. https://doi. org/10.1300/J019v30n01\_02
- Herschell, A. D., Kolko, D. J., Scudder, A. T., Taber-Thomas, S., Schaffner, K. F., Hiegel, S. A., ..., & Mrozowski, S. (2015). Protocol for a statewide randomized controlled trial to compare three training models for implementing an evidence-based treatment. Implementation Science, 10(1), 133. doi: https:// doi.org/10.1186/s13012-015-0324-z
- Herschell, A. D., McNeil, C. B., Urquiza, A. J., McGrath, J. M., Zebell, N. M., Timmer, S. G., & Porter, A. (2009). Evaluation of a treatment manual and workshops for disseminating, parent-child interaction therapy. Administration and Policy in Mental Health and Mental Health Services Research, 36(1), 63–81. https://doi.org/10.1007/s10488-008-0194-7
- Herschell, A. D., Scudder, A. B., Schaffner, K. F., & Slagel, L. A. (2016). Feasibility and effectiveness of parent-child interaction therapy with victims of domestic violence: A pilot study. Journal of Child and Family Studies, 0–1. doi: https://doi.org/10.1007/ s10826-016-0546-y

- Hood, K. K., & Eyberg, S. M. (2003). Outcomes of parent-child interaction therapy: Mothers' reports of maintenance three to six years after treatment. *Journal of Clinical Child and Adolescent Psychology*, 32(3), 419–429. https://doi.org/10.1207/ S15374424JCCP3203\_10
- Kazdin, A. E. (1997). A model for developing effective treatments: Progression and interplay of theory, research, and practice. *Journal of Clinical Child Psychology*, 2, 114–129. https://doi.org/10.1207/ s15374424jccp2602\_1
- Keeshin, B. R., Oxman, A., Schindler, S., & Campbell, K. A. (2015). A domestic violence shelter parent training program for mothers with young children. *Journal of Family Violence*, 30(4), 461–466. https:// doi.org/10.1007/s10896-015-9698-6
- Kohlhoff, J., & Morgan, S. (2009). Parent-child interaction therapy for toddlers: A pilot study. *Child and Family Behavior Therapy*, 23(4), 1–14. https://doi.org/ 10.1177/0192513X12437708
- Krivelyova, A., Sukumar, B., Stephens, R., & Freeman, K. (2007). Treatment costs for children and families receiving parent-child interaction therapy or services as usual in a system of care setting. In *Annual Research Conference*. Tampa, FL.
- Kurtz, S. M. S. (2007). Selective Mutism Interaction Coding System-Revised.
- Kurtz, S. M. S. (2008). Selective Mutism Behavioral Observation Task (SM BOT).
- Lang, J. M., & Connell, C. M. (2017). Measuring Costs to Community-Based Agencies for Implementation of an Evidence-Based Practice. *The Journal of Behavioral Health Services and Research*, 44(1), 122–134. https:// doi.org/10.1007/s11414-016-9541-8
- Lanier, P., Kohl, P. L., Benz, J., Swinger, D., & Drake, B. (2014). Preventing maltreatment with a communitybased implementation of parent-child interaction therapy. *Journal of Child and Family Studies*, 23(2), 449–460. https://doi.org/10.1007/s10826-012-9708-8
- Lanier, P., Kohl, P. L., Benz, J., Swinger, D., Moussette, P., & Drake, B. (2011). Parent-child interaction therapy in a community setting: Examining outcomes, attrition, and treatment setting. *Research on Social Work Practice*, 21(6), 689–698. https://doi. org/10.1177/1049731511406551
- Lecavalier, L. (2006). Behavioral and emotional problems in young people with pervasive developmental disorders: Relative prevalence, effects of subject characteristics, and empirical classification. *Journal of Autism* and Developmental Disorders, 36(8), 1101–1114. https://doi.org/10.1007/s10803-006-0147-5
- Lee, E. L., Wilsie, C. C., & Brestan-Knight, E. (2011). Using parent-child interaction therapy to develop a pre-parent education module. *Children and Youth Services Review*, 33(7), 1254–1261. https://doi. org/10.1016/j.childyouth.2011.02.024
- Lenze, S. N., Pautsch, J., & Luby, J. (2011). Parentchild interaction therapy emotional development: A novel treatment for depression in preschool children.

Depression and Anxiety, 28(2), 153–159. https://doi.org/10.1002/da.20770

- Lesack, R., Bearss, K., Celano, M., & Sharp, W. G. (2014). Parent-child interaction therapy and autism spectrum disorder: Adaptations with a child with severe developmental delays. *Clinical Practice in Pediatric Psychology*, 2(1), 68–82. https://doi.org/10.1037/ cpp0000047
- Leung, C., Tsang, S., Heung, K., & Yiu, I. (2009). Effectiveness of parent-child interaction therapy (PCIT) among Chinese families. *Research on Social Work Practice*, 19(3), 304–313. https://doi. org/10.1177/1049731508321713
- Leung, C., Tsang, S., Sin, T. C. S., & Choi, S. (2015). The efficacy of parent-child interaction therapy with Chinese families: Randomized controlled trial. *Journal of Analytical and Applied Pyrolysis*, 25(1), 117–128. https://doi.org/10.1177/1049731513519827
- Lieneman, C. C., Brabson, L. A., Highlander, A., Wallace, N. M., & McNeil, C. B. (2017). Parent-child interaction therapy: Current perspectives. *Psychology Research and Behavior Management*, 10, 239–256. https://doi.org/10.2147/PRBM.S91200
- Linsell, L., Malouf, R., Johnson, S., Morris, J., Kurinczuk, J. J., & Marlow, N. (2016). Prognostic factors for behavioral problems and psychiatric disorders in children born very preterm or very low birth weight: A systematic review. *Journal of Developmental and Behavioral Pediatrics*, 37(1), 88–102. https://doi. org/10.1097/DBP.00000000000238
- Lourenco, L. M., Baptista, M. N., Senra, L. X., Adriana, A., Basilio, C., & Bhona, F. M. D. C. (2013). Consequences of exposure to domestic violence for children: A systematic review of the literature. *Paidéia (Ribeirão Preto)*, 23(55), 263–271. https://doi. org/10.1590/1982-43272355201314
- Lyon, A. R., & Budd, K. S. (2010). A community mental health implementation of parent-child interaction therapy. *Journal of Child and Family Studies*, 19(5), 654– 668. https://doi.org/10.1007/s10826-010-9353-z.A
- Lyon, A. R., Gershenson, R. A., Farahmand, F. K., Thaxter, P. J., Behling, S., & Budd, K. S. (2009). Effectiveness of teacher-child interaction training (TCIT) in a preschool setting. *Behavior Modification*, 33(6), 855–884. https://doi. org/10.1177/0145445509344215
- Masse, J. J., McNeil, C. B., Wagner, S. M., & Chorney, D. B. (2007). Parent-child interaction therapy and high functioning autism: A conceptual overview. *Journal of Early and Intensive Behavior Intervention*, 4(4), 714– 735. https://doi.org/10.1037/h0100402
- Matos, M., Bauermeister, J. J., & Bernal, G. (2009). Parent-child interaction therapy for Puerto Rican preschool children with ADHD and behavior problems: A pilot efficacy study. *Family Process*, 48(2), 232–252. https://doi.org/10.1111/j.1545-5300.2009.01279.x
- Matos, M., Torres, R., Santiago, R., Jurado, M., & Rodriguez, I. (2006). Adaptation of parent-child interaction therapy for Puerto Rican families: A preliminary study. *Family Process*, 45(2), 205–222.

- Maughan, B., Rowe, R., Messer, J., Goodman, R., & Meltzer, H. (2004). Conduct disorder and oppositional defiant disorder in a national sample: Developmental epidemiology. *Journal of Child Psychology and Psychiatry*, 45(3), 609–621. https:// doi.org/10.1111/j.1469-7610.2004.00250.x
- McCabe, K., & Yeh, M. (2009). Parent-child interaction therapy for Mexican Americans: A randomized clinical trial. *Journal of Clinical Child & Adolescent Psychology*, 38(5), 753–759. https://doi. org/10.1080/15374410903103544
- McCabe, K. M., Yeh, M., Garland, A. F., Lau, A. S., & Chavez, G. (2005). The GANA program: A tailoring approach to adapting parent child interaction therapy for Mexican Americans. *Education & Treatment* of Children (ETC), 28(2), 111–129 Retrieved from https://pallas2.tcl.sc.edu/login?url=http://search. ebscohost.com/login.aspx?direct=true&db=a9h&AN =16726352&site=ehost-live
- McDiarmid, M. D., & Bagner, D. M. (2005). Parent child interaction therapy for children with disruptive behavior and developmental disabilities. *Education and Treatment of Children*, 28(2), 130–141.
- McNeil, C. B., Capage, L. C., Bahl, A., & Blanc, H. (1999). Importance of early intervention for disruptive behavior problems: Comparison of treatment and waitlist-control groups. *Early Education and Development*, 10(4), 445–454. https://doi.org/10.1207/ s15566935eed1004\_2
- McNeil, C. B., Capage, L. C., & Bennett, G. M. (2002). Cultural issues in the treatment of young African American children diagnosed with disruptive behavior disorders. *Journal of Pediatric Psychology*, 27(4), 339–350. https://doi.org/10.1093/jpepsy/27.4.339
- McNeil, C. B., Eyberg, S., Eisenstadt, T. H., Newcomb, K., & Funderburk, B. (1991). Parent-child interaction therapy with behavior problem children: Generalization of treatment effects to the school setting. *Journal of Clinical Child Psychology*, 20(2), 140–151. https://doi.org/10.1300/J019v20n02\_02
- McNeil, C. B., & Hembree-Kigin, T. L. (2010). Parentchild interaction therapy (2nd ed.). New York, NY: Springer Science & Business Media.
- Mersky, J. P., Topitzes, J., Grant-Savela, S. D., Brondino, M. J., & McNeil, C. B. (2016). Adapting parent-child interaction therapy to foster care: Outcomes from a randomized trial. *Research on Social Work Practice*, 26(2), 157–167.
- N'zi, A. M., Stevens, M., & Eyberg, S. M. (2016). Child directed interaction training for young children in kinship care: A pilot study. *Child Abuse and Neglect*, 55, 81–91. https://doi.org/10.1016/j.chiabu.2016.03.001
- Naik-Polan, A. T., & Budd, K. S. (2008). Stimulus generalization of parenting skills during parent-child interaction therapy. *Journal of Early & Intensive Behavior Intervention*, 5(3), 71–92. https://doi.org/10.1037/ h0100424
- Niec, L. N., Barnett, M. L., Prewett, M. S., & Shanley, J. R. (2016). Group parent-child interaction therapy: A randomized control trial for the treatment of conduct

problems in young children. *Journal of Consulting* and Clinical Psychology, 84(5), 682–698. https://doi. org/10.1037/a0040218

- Niec, L. N., Hemme, J. M., Yopp, J. M., & Brestan, E. V. (2005). Parent-child interaction therapy: The rewards and challenges of a group format. *Cognitive* and Behavioral Practice, 12(1), 113–125. https://doi. org/10.1016/S1077-7229(05)80046-X
- Nieter, L., Thornberry, T., & Brestan-Knight, E. (2013). The effectiveness of group parent-child interaction therapy with community families. *Journal of Child* and Family Studies, 22(4), 490–501. https://doi. org/10.1007/s10826-012-9601-5
- Nixon, R. D. V., Sweeney, L., Erickson, D. B., & Touyz, S. W. (2003). Parent-child interaction therapy: A comparison of standard and abbreviated treatments for oppositional defiant preschoolers. *Journal of Consulting and Clinical Psychology*, 71(2), 251–260. https://doi.org/10.1037/0022-006X.71.2.251
- Nixon, R. D. V., Sweeney, L., Erickson, D. B., & Touyz, S. W. (2004). Parent-child interaction therapy: Oneand two-year follow-up of standard and abbreviated treatments for oppositional preschoolers. *Journal of Abnormal Child Psychology*, 32(3), 263–271. https:// doi.org/10.1023/B:JACP.0000026140.60558.05
- Patterson, G. R. (1976). The aggressive child: Victim and architect of a coercive system. In E. J. Mash, L. A. Hamerlynck, & L. C. Handy (Eds.), *Behavior modification and families* (pp. 267–316). New York, NY: Brunner/Mazel.
- Pearl, E. S. (2008). Parent-child interaction therapy with an immigrant family exposed to domestic violence. *Clinical Case Studies*, 25–41. https://doi. org/10.1177/1534650107300939
- Pemberton, J. R., Kramer, T. L., Borrego, J., & Owen, R. R. (2013). Kids at the VA? A call for evidencebased parenting interventions for returning veterans. *Psychological Services*, 10(2), 194–202. https://doi. org/10.1037/a0029995
- Phillips, J., Morgan, S., Cawthorne, K., & Barnett, B. (2008). Pilot evaluation of parent-child interaction therapy delivered in an Australian community early childhood clinic setting. *Australian and New Zealand Journal of Psychiatry*, 42(8), 712–719. https://doi. org/10.1080/00048670802206320
- Pincus, D. B., Eyberg, S. M., & Choate, M. L. (2005). Adapting parent-child interaction therapy for young children with separation anxiety disorder. *Education and Treatment of Children*, 28(2), 163– 181. https://doi.org/10.1037/0022-006x.64.2.333\ r10.1037/0022-006x.62.1.100\r10.1207/ s15566935eed1004
- Pincus, D. B., Santucci, L. C., Ehrenreich, J. T., & Eyberg, S. M. (2008). The implementation of modified parent-child interaction therapy for youth with separation anxiety disorder. *Cognitive and Behavioral Practice*, 15(2), 118–125. https://doi.org/10.1016/j. cbpra.2007.08.002
- Pinquart, M., & Shen, Y. (2011). Behavior problems in children and adolescents with chronic physical illness:

A meta-analysis. *Journal of Pediatric Psychology*, 36(4), 375–384. https://doi.org/10.1093/jpepsy/jsq104

- Postorino, V., Sharp, W. G., McCracken, C. E., Bearss, K., Burrell, T. L., Evans, A. N., & Scahill, L. (2017). A systematic review and meta-analysis of parent training for disruptive behavior in children with Autism Spectrum Disorder. *Clinical Child and Family Psychology Review*, 20(4), 1–12. https://doi. org/10.1007/s10567-017-0237-2
- Proctor, E. K., Landsverk, J., Aarons, G., Chambers, D., Glisson, C., & Mittman, B. (2009). Implementation research in mental health services: An emerging science with conceptual, methodological, and training challenges. Administration and Policy in Mental Health and Mental Health Services Research, 36(1), 24–34. https://doi.org/10.1007/s10488-008-0197-4
- Querido, J. G., Warner, T. D., & Eyberg, S. M. (2002). Parenting styles and child behavior in African American families of preschool children. *Journal of Clinical Child Psychology*, 31(2), 272–277. https:// doi.org/10.1207/S15374424JCCP3102
- Schuhmann, E. M., Foote, R. C., Eyberg, S. M., Boggs, S. R., & Algina, J. (1998). Efficacy of parent-child interaction therapy: Interim report of a randomized trial with short-term maintenance. *Journal of Clinical Child Psychology*, 27(1), 34–45. https://doi. org/10.1207/s15374424jccp2701
- Scott, S., Knapp, M., Henderson, J., & Maughan, B. (2001). Financial cost of social exclusion: Follow up study of antisocial children into adulthood. *British Medical Journal*, 323, 1–5. https://doi.org/10.1136/ bmj.323.7306.191
- Scudder, A. T., & Herschell, A. D. (2015). Building an evidence-base for the training of evidence-based treatments in community settings: Use of an expertinformed approach. *Children and Youth Services Review*, 55, 84–92. https://doi.org/10.1016/j. childyouth.2015.05.003
- Scudder, A. T., McNeil, C. B., Chengappa, K., & Costello, A. H. (2014). Evaluation of an existing parenting class within a women's state correctional facility and a parenting class modeled from parentchild interaction therapy. *Children and Youth Services Review*, 46, 238–247. https://doi.org/10.1016/j. childyouth.2014.08.015
- Scudder, A. T., Taber-Thomas, S. M., Schaffner, K. F., Pemberton, J., Hunter, L., & Herschell, A. D. (2017). System-level sustainability of evidence-based practices in community-based systems following 12 largescale implementation initiatives. *Health Research Policy and Systems*.
- Self-Brown, S., Valente, J. R., Wild, R. C., Whitaker, D. J., Galanter, R., Dorsey, S., & Stanley, J. (2012). Utilizing benchmarking to study the effectiveness of parent-child interaction therapy implemented in a community setting. *Journal of Child and Family Studies*, 21(6), 1041–1049. https://doi.org/10.1007/ s10826-012-9566-4
- Self-Brown, S., Whitaker, D., Berliner, L., & Kolko, D. (2012). Disseminating child maltreatment interven-

tions: Research on implementing evidence-based programs. *Child Maltreatment*, *17*(1), 5–10. https://doi. org/10.1177/1077559511436211

- Shanley, J. R., & Niec, L. N. (2010). Coaching parents to change: The impact of in vivo feedback on parents' acquisition of skills. *Journal of Clinical Child* & Adolescent Psychology, 39(July 2015), 282–287. https://doi.org/10.1080/15374410903532627
- Shanley, J. R., & Niec, L. N. (2011). The contribution of the Dyadic Parent-Child Interaction Coding System (DPICS) warm-up segments in assessing parent-child interactions. *Child and Family Behavior Therapy*, 33, 248–263. https://doi.org/10.1080/07317107.2011.59 6009
- Shaw, D. S., Gilliom, M., Ingoldsby, E. M., & Nagin, D. S. (2003). Trajectories leading to school-age conduct problems. *Developmental Psychology*, 39(2), 189–200. https://doi.org/10.1037/0012-1649.39.2.189
- Shaw, D. S., Lacourse, E., & Nagin, D. S. (2005). Developmental trajectories of conduct problems and hyperactivity from ages 2 to 10. *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 46*(9), 931–942. https://doi. org/10.1111/j.1469-7610.2004.00390.x
- Solomon, M., Ono, M., Timmer, S., & Goodlin-Jones, B. (2008). The effectiveness of parent-child interaction therapy for families of children on the autism spectrum. *Journal of Autism and Developmental Disorders*, 38(9), 1767–1776. https://doi.org/10.1007/ s10803-008-0567-5
- Stirman, S. W., Kimberly, J., Cook, N., Calloway, A., Castro, F., & Charns, M. (2012). The sustainability of new programs and innovations: A review of the empirical literature and recommendations for future research. *Implementation Science*, 7(1), 17. https:// doi.org/10.1186/1748-5908-7-17
- Stokes, J. O., Jent, J. F., Weinstein, A., Davis, E. M., Brown, T. M., Cruz, L., & Wavering, H. (2016). Does practice make perfect? The relationship between selfreported treatment homework completion and parental skill acquisition and child behaviors. *Behavior Therapy*, 47(4), 538–549. https://doi.org/10.1016/j. beth.2016.04.004
- Stokes, J. O., Scudder, A. T., Costello, A. H., & McNeil, C. B. (2017). Parent-child interaction therapy with an eight-year old child: A case study. *Evidence-Based Practice in Child and Adolescent Mental Health.* https://doi.org/10.1080/23794925.2016.1268938
- Tempel, A. B., Wagner, S. M., & McNeil, C. B. (2009). Parent-child interaction therapy and language facilitation: The role of parent-training on language development. *The Journal of Speech-Language Pathology and Applied Behavior Analysis*, 3(2–3), 216–232. https:// doi.org/10.1037/h0100241
- Thomas, R., Abell, B., Webb, H. J., Avdagic, E., & Zimmer-Gembeck, M. J. (2017). Parent-child interaction therapy: A meta-analysis. *Pediatrics*, 140(3). https://doi.org/10.1542/peds.2017-0352
- Thomas, R., & Herschell, A. D. (2013). Parent-child interaction therapy: A manualized intervention for

the therapeutic child welfare sector. *Child Abuse and Neglect*, 37(8), 578–584. https://doi.org/10.1016/j. chiabu.2013.02.003

- Thomas, R., & Zimmer-Gembeck, M. J. (2007). Behavioral outcomes of parent-child interaction therapy and triple P - positive parenting program: A review and meta-analysis. *Journal of Abnormal Child Psychology*, 35(3), 475–495. https://doi.org/10.1007/ s10802-007-9104-9
- Thomas, R., & Zimmer-Gembeck, M. J. (2011). Accumulating evidence for parent-child interaction therapy in the prevention of child maltreatment. *Child Development*, 82(1), 177–192. https://doi. org/10.1111/j.1467-8624.2010.01548.x
- Thomas, R., & Zimmer-Gembeck, M. J. (2012). Parentchild interaction therapy: An evidence-based treatment for child maltreatment. *Child Maltreatment*, 17(3), 253–266. https://doi.org/10.1177/1077559512459555
- Thornberry, T., & Brestan-Knight, E. (2011). Analyzing the utility of Dyadic Parent-Child Interaction Coding System (DPICS) warm-up segments. *Journal of Psychopathology and Behavioral Assessment*, 33(2), 187–195. https://doi.org/10.1007/s10862-011-9229-6
- Tiano, J. D., & McNeil, C. B. (2006). Training head start teachers in behavior management using parent-child interaction therapy: A preliminary investigation. *Journal of Early and Intensive Behavior Intervention*, 3(2), 220–233. https://doi.org/10.1037/h0100334
- Timmer, S. G., Ho, L. K. L., Urquiza, A. J., Zebell, N. M., Fernandez Y Garcia, E., & Boys, D. (2011). The effectiveness of parent-child interaction therapy with depressive mothers: The changing relationship as the agent of individual change. *Child Psychiatry* and Human Development, 42(4), 406–423. https://doi. org/10.1007/s10578-011-0226-5
- Timmer, S. G., Urquiza, A. J., Boys, D. K., Forte, L. A., Quick-Abdullah, D., Chan, S., & Gould, W. (2015). Filling potholes on the implementation highway: Evaluating the implementation of parent-child interaction therapy in Los Angeles County. *Child Abuse* and Neglect, 53, 40–50. https://doi.org/10.1016/j. chiabu.2015.11.011

- Timmer, S. G., Urquiza, A. J., & Zebell, N. (2006). Challenging foster caregiver - maltreated child relationships: The effectiveness of parent-child interaction therapy. *Children and Youth Services Review*, 28(1), 1–19. https://doi.org/10.1016/j. childyouth.2005.01.006
- Timmer, S. G., Ware, L. M., Urquiza, A. J., & Zebell, N. M. (2010). The effectiveness of parent-child interaction therapy for victims of interparental violence. *Violence and Victims*, 25(4), 486–503. https://doi. org/10.1891/0886-6708.25.4.486
- Timmer, S. G., Zebell, N. M., Culver, M. A., & Urquiza, A. J. (2010). Efficacy of adjunct in-home coaching to improve outcomes in parent-child interaction therapy. *Research on Social Work Practice*, 20(1), 36–45. https://doi.org/10.1177/1049731509332842
- Topitzes, J., Mersky, J. P., & McNeil, C. B. (2015). Implementation of parent child interaction therapy within foster care: An attempt to translate an evidencebased program within a local child welfare agency. *Journal of Public Child Welfare*, 9(1), 22–41. https:// doi.org/10.1080/15548732.2014.983288
- Ward, M. A., Theule, J., & Cheung, K. (2016). Parentchild interaction therapy for child disruptive behaviour disorders: A meta-analysis. *Child & Youth Care Forum*, 45(5), 675–690. https://doi.org/10.1007/ s10566-016-9350-5
- Ware, L. M., McNeil, C. B., Masse, J., & Stevens, S. (2008). Efficacy of in-home parentchild interaction therapy. *Child and Family Behavior Therapy*, 30(2), 99–126. https://doi. org/10.1080/07317100802060302
- Washington State Institute for Public Policy. (2017). Parent-child interaction therapy (PCIT) for families in the child welfare system. In Child welfare benefit-cost results.
- Zisser, A. R., & Eyberg, S. M. (2010). Parent-child interaction therapy and the treatment of disruptive behavior disorders. In J. R. Weisz & A. E. Kazdin (Eds.), *Evidence-based psychotherapies for children and adolescents* (2nd ed., pp. 179–193). New York, NY: The Guildford Press.