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A Review of Parent Participation Engagement in Child and Family Mental Health Treatment

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Abstract

Engagement in child and family mental health treatment has critically important clinical, implementation, and policy implications for efforts to improve the quality and effectiveness of care. This article describes a review of the existing literature on one understudied element of engagement, parent participation. Twenty-three published articles were identified. Questions asked of the literature include what terms are used to represent parent participation engagement, how parent participation engagement is measured, what are the rates of parent participation engagement reported in studies of child and family mental health treatment, whether parent participation engagement has been found to overlap with attendance engagement, what factors have been identified as associated with parent participation engagement, whether parent participation engagement is associated with improved outcomes, and what strategies have been designed to improve PPE and whether such strategies are associated with improved outcomes. Results indicate varied terms and measures of parent participation engagement, moderate overall rates, and high overlap with measures of attendance engagement. The extant literature on factors associated with parent participation engagement was somewhat limited and focused primarily on parent/family-level factors. Evidence of links between parent participation engagement and outcome improvements was found across some outcome domains, and strategies designed to target parent participation engagement were found to be effective overall. A framework for organizing efforts to examine the different elements of engagement is described, and findings are discussed in terms of suggestions for consistent terminology, clinical implications, and areas for future research.

Keywords

parent; participation; engagement; involvement; homework completion; child and family mental health treatment

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Attention to engagement in child and family mental health treatment has increased in recent years (Becker et al., 2013; Gopalan et al., 2010; Ingoldsby, 2010; Kim et al., 2012; Lindsey et al., 2013) given growing emphasis on moving efficacious treatments into community settings, identifying methods to provide services more efficiently, and improving overall quality of care. Demonstrated links between process and outcomes have led to a greater focus on treatment processes (Shirk et al., 2012). Without attention to the key process of child and family engagement, efforts to improve the effectiveness and efficiency of treatment are largely futile.

The treatment engagement process consists of attitudinal and behavioral components (see Figure 1) (Staudt, 2007). The essence of the attitudinal component of engagement is to perceive that benefits of treatment outweigh costs (Becker et al., 2013; Staudt, 2007). The behavioral component of engagement includes three distinct elements that build upon each other: one must first seek or initiate help, then attend the service, and finally participate actively and meaningfully in the service, both in interactions with providers and by following through with treatment recommendations (Nock & Ferriter, 2005; Staudt, 2007). This third behavioral engagement element is referred to here as participation engagement. While parent attendance at child and family treatment sessions is necessary for effective parent engagement in treatment (Israel et al., 2004, 2007), it is not sufficient to represent the complex nature of participation in treatment sessions and through actions at home. Furthermore, attendance is often conceptualized as a proxy for participation (and attitudinal) engagement in treatment, yet there is general consensus that attendance does not sufficiently represent participation engagement (Nock & Ferriter, 2005; Staudt, 2007).

While the literatures on help-seeking and attendance in child and family treatment are quite rich (Gopalan et al., 2010; Logan & King, 2001; Miller et al., 2008; Zwaanswijk et al., 2003), to date limited attention has been paid to participation engagement (Lindsey et al., 2013). Behaviors indicative of active participant involvement in an intervention have been associated with improvement in outcomes in evidence-based interventions for depression (e.g., Kazantzis, Deane, & Ronan, 2000; Miranda, Azocar, Organista, Dwyer, & Areane, 2003), anxiety (e.g., Al-Kubaisy et al., 1992), and substance abuse disorders (e.g., Rowan-Szal, Joe, Hiller, & Simpson, 1997; Villano, Rosenblum, Magura, & Fong, 2002).

Parent participation engagement (PPE) is particularly important for child and family treatment given the critical role that parents (or any primary caregiver) often play in obtaining and facilitating attendance at treatment. Further, the significant influence of family context on children's development and behavior often results in child treatment focusing on the family regardless of the underlying treatment approach or modality (Kazdin & Weisz, 1998). PPE includes sharing opinions, asking questions, and providing one's point of view on a problem or solution, as well as participation in therapeutic activities such as games and role plays (Karver et al., 2005). PPE also includes parent follow-through with home action plans (referred to here as homework), such as changing one's own parenting behavior (e.g., increasing reinforcement of positive behaviors), serving as a "co-provider" to continue intervention delivery at home (e.g., working on turn taking when playing games at home), and/or supporting the child's behavior change efforts (e.g., providing reminders to the child to use coping strategies) (Hoagwood, 2005; Karver et al., 2005). PPE reflects the parent's

active, independent, and responsive contribution to treatment, and is a distinct construct from alliance, which represents the relationship between parent and provider (Shirk & Saiz, 1992; Tetley et al., 2011).

Despite the potential benefits of PPE, observational and qualitative research has demonstrated that PPE in treatment is lacking (Baker-Ericzén et al., 2013; Haine-Schlagel et al., 2011) and that parents face challenges to participating actively in treatment (Baker-Ericzén et al., 2013). Examples of challenges include feeling blamed, judged, and not listened to by therapists, not feeling supported by the formal service system, and feeling dissatisfied with their children's mental health services in general (Baker-Ericzén et al., 2013). Given that PPE is lacking, understanding and promoting PPE is critically important for several reasons. First, policy makers, researchers, and providers agree that PPE is essential for treatment effectiveness (Hoagwood 2005; Quinn et al., 1995; Tolan & Dodge, 2005). Second, meta-analyses have demonstrated consistent improvements in child outcomes when parents are involved in treatment across type of child mental health disorder (Dowell & Ogles, 2010; Karver et al., 2006). Third, parent-focused intervention strategies (and thus attention to parent participation) are a feature of evidence-based treatments for children across many disorders, including disruptive behaviors (Eyberg et al., 2008), attention deficit/hyperactivity disorder (Evans et al., 2014), depression (e.g., David-Ferdon & Kaslow, 2008), anxiety (e.g., Silverman, Pina, & Viswesvaran, 2008), and eating disorders (Keel & Haedt, 2008). PPE can be conceptualized as an "evidence-based process," or process element of multiple efficacious treatments, that can improve care and complement efforts to implement specific evidence-based practices (Huang et al., 2005). In addition, without PPE it is less likely that therapeutic changes achieved in sessions are generalized to the home setting (Karver et al., 2006). Lastly, given fidelity is in part driven by the client (Allen et al., 2012; Perepletchikova & Kazdin, 2005; Schoenwald et al., 2003), PPE may impact a provider's ability to implement parent- and family-focused evidence-based practices with fidelity.

As mentioned above, the extant research on PPE has been limited compared to help-seeking and attendance engagement in child and family mental health treatment. Little is known about factors associated with PPE or associations between PPE and outcomes. In particular, two recent meta-analyses evaluating the effect of homework assignment and completion on cognitive behavioral treatment outcomes for adults (i.e., Kazantzis et al., 2010; Mausbach et al., 2010) both note a dearth of research evaluating mechanisms that may affect homework adherence.

The ecological framework for understanding contextual influences on child mental health treatment (Garland et al., 2013; McKay & Bannon, 2004; Schoenwald & Hoagwood, 2001; Southam-Gerow et al., 2006) may be applicable to understanding PPE given context can impact clients' and families' engagement behaviors (Miller et al., 2008). Numerous studies have examined factors associated with attendance engagement across multiple contextual levels, including child, parent/family, provider, service, and organizational/program levels (e.g., Brookman-Frazee et al., 2010; Garland et al., 2012; Gopalan et al., 2010; Miller et al., 2008; Nock & Ferriter, 2005). The most common levels examined are child and parent/family, for which the evidence indicates that these levels play an important role in

attendance engagement. Some of the most consistent child factors that predict attendance engagement include gender, severity/impairment level, and racial/ethnic minority background; for the parent level the most consistent predictors are parent psychopathology and stress, single parent status, parental discipline effectiveness, motivation, and family interactions (Gopalan et al., 2010). Less attention has been paid to provider (e.g., provider background and experience; Garland et al., 2012) or service characteristics (e.g., strategies provided in treatment sessions, Garland et al., 2012) associated with attendance engagement in child and family mental health treatment. No clear attention has been paid to organizational/program level factors such as an organization's culture, climate, or policies, which have been examined in the adult treatment literature (Landrum et al., 2012).

In addition, although a number of interventions have been developed to address engagement in child and family mental health treatment (Ingoldsby, 2010; Kim et al., 2012; Lindsey et al., 2013), the overwhelming majority have examined effects on attendance and attitudinal engagement rather than PPE (Lindsey et al., 2013). One reason for this lack of attention to PPE may be challenges in defining and measuring the construct. Another reason may be an assumption made by the field that attendance engagement is sufficient to achieve desired treatment outcomes.

This paper has two primary purposes. First, this paper provides a conceptual framework (Figure 1) that elucidates the specific components of treatment engagement, including participation engagement. Such a framework can facilitate both the development of high quality measures to assess PPE and a common language for researchers to use when studying this phenomenon. Second, this paper highlights our existing knowledge regarding PPE to encourage greater attention to efforts to enhance PPE in child and family treatment. This paper achieves these goals by answering several questions: (1) What terms are used to represent PPE? (2) How is PPE measured? (3) What are the rates of PPE reported in studies of child and family mental health treatment? (4) Does PPE overlap consistently with attendance engagement? (5) What factors have been identified as associated with PPE? (6) Is PPE associated with improved outcomes? and (7) What strategies have been designed to improve PPE and are such strategies associated with improved outcomes? We focus on outpatient mental health treatment given it is the most common service type for children and families and the most commonly studied service context (Ingoldsby 2010; Lindsey et al., 2013).

Method

Search Strategy

The literature search was first conducted by using the electronic databases PsychINFO and PubMed. The search terms included [parent* or mother* or father* or famil* or caregiver*] AND [engage* or involve* or participat* OR "homework completion" OR "homework compliance"] AND [therap* or treatment* or intervention*] AND ["mental health" or "behavioral health" or "parent training" or "parent management training"] that were peer-reviewed through 2013. This search yielded 8,198 records in PsychINFO and 12,008 records in PubMed. Abstracts were reviewed to assess for relevance to child/family mental health treatment and a focus on parent engagement. Abstracts were excluded that focused on adult

treatment or adherence to pediatric medical care (e.g., obesity, diabetes). Other article sources included reviewing reference sections of published reviews and screened articles, and forward and backward searches of all articles identified for coding. A total of 127 articles were obtained and screened by the first author. Screened articles were *included* if they utilized a measure from one of three categories: (1) specific parent participation behaviors in clinical interactions; (2) homework completion; and/or (3) global parent participation (i.e., broad measures of parents' participation in treatment that did not reflect a specific behavior in clinical interactions or homework completion); Articles were *excluded* if they: (1) did not include original data analyses or only described initial data from an ongoing trial; (2) included only help-seeking, attendance¹, or attitudinal engagement measures; (3) measured only how treatment encouraged PPE; (4) combined child and parent participation engagement into one measure; or (5) focused exclusively on services other than child/family mental health treatment provided in an outpatient context (such as prevention services, assessment/evaluation services, family support services, and inpatient/residential milieu) given the heterogeneous nature of the families served, parent buy-in, and participation opportunities across the wide range of child and family services. Outpatient context is broadly defined as any service provided at a clinic, in the community, at a school, or in the home.

A total of 23 articles met the inclusion/exclusion criteria. One article presented two distinct studies and is considered two articles in the subsequent analyses (thus the total number of articles in the review is 24). The articles represent 21 discrete studies. Articles reviewed are starred in the reference list.

Coding Procedures

A coding manual was drafted by the authors and reviewed for clarity and thoroughness by four child mental health services researchers who have conducted similar reviews. The coding manual consisted of two sections. First, articles were coded for information at the article level, including the service context, description of participants, definition of PPE, and results. Results included factors associated with PPE, outcomes of PPE, and strategies to improve PPE. Only results that were clearly presented in tables or text were coded. Coders only considered the most conservative statistical tests (e.g., if correlations were followed by regression analyses, only the regression results were coded). For the coding of results within an article, all findings were collapsed across PPE measures. Second, articles were coded for information about each measure of PPE (a measure was defined as a set of items or codes analyzed together), including the content and development, psychometrics, measure type, and how often the measure was assessed. For all codes except results, forced choice responses were created that reflected either presence/absence of the information or multiple choice responses. Text fields were available to allow coders to indicate information not represented in the forced choice options.

The authors served as the coders and used the coding manual to double code 30% of articles (n=7) to determine inter-rater reliability. The remaining 16 articles were randomly assigned

¹Articles were excluded if their only measure of participation engagement was number of total sessions attended or number of sessions attended by the parent.

evenly to the two coders such that each coder coded eight articles independently and then met to review and discuss any questions about interpretation of the coding manual. Due to the categorical nature of the coding manual, Cohen's κ was calculated to assess coder agreement. According to guidelines established by Landis and Koch (1977), at the article level there was near perfect agreement between the two coders, $\kappa = .968$ (95% CI, .952 to .984), $p < .0005$. Similarly, at the measure level, there was also near perfect agreement between the two coders, $\kappa = .976$ (95% CI, .954 to .998), $p < .0005$.

Results

Overview of Articles

The publication date ranged from 1974–2013 with 50% of articles published in 2000 or earlier and 50% published after 2000.

Context and service delivery—See Table 1 for a summary of these descriptive results. Most of the articles examined a structured treatment protocol that was evidence-based or evidence-informed, in contrast to treatment as usual in the community (hereafter referred to as usual care). In 46% of articles ($n=11$), the treatment was being provided as part of a research study. The large majority of articles examined outpatient clinic settings (could include academic, community, and/or not specified), with one article reporting that 87% of services took place in an outpatient context. The ways parents were included in treatment varied, with the most frequent way being individual parent-only sessions and the least frequent ways including group family sessions, family-school consultations, and home visits.

Child characteristics—These results can be found in Table 2. The target child disorder was noted in a large majority of articles, with over 50% focused on disruptive behavior disorders. Child age was reported in most articles, with the most common age range being middle childhood (ages 5–12). Child race/ethnicity was specified in only about 50% of articles. Of the articles reporting child race/ethnicity, about two thirds included more than 70% Non-Hispanic Caucasian children.

Parent/family characteristics—See Table 2 for a summary of these descriptive results. It is notable that parent demographics such as gender and race ethnicity were not reported in many of the articles. Also of interest is that a very small percentage of articles indicated a high proportion of low socioeconomic status family participants.

Provider characteristics—These results are found in Table 2. Very few articles reported provider discipline, with only about 50% reporting on education level.

Question #1: What Terms Are Used to Represent PPE?

Eight articles used the term “involvement,” seven used the term “engagement,” four used the term “participation,” four used the term “adherence,” and two used the term “cooperation” to represent PPE (some articles used multiple terms). In addition four articles focused on the negative valence of PPE, using the terms “noncompliance” or “resistance.”

Question #2: How is PPE Measured?

Measurement of PPE: Content—A total of 33 measures of PPE were included in the 24 articles. Most articles ($n=17$) included one measure of PPE; the number of measures ranged from 1–3, with a mean of 1.4 ($SD=.7$). Measures were organized into three categories: global measures of participation, measures of specific participation behaviors, and homework completion. Many measures assessed global participation (39% or $n=13$ within 10 articles). These measures were typically very few items and assessed the overall degree to which the parent participated in treatment. Specific parent participation behaviors in clinical interactions comprised 30% of the measures ($n=10$ within 9 articles) and included resistance or interference ($n=5$), attentiveness or enthusiasm ($n=3$), collaboration/partnership with the provider ($n=2$), participation in therapeutic activities ($n=1$), and verbal contributions to meetings ($n=1$). The most common PPE measure category was homework completion (48%; $n=16$ within 14 articles). These measures typically consisted of a binary determination of whether the homework was completed or not, although some articles did include more complex ratings of homework completion such as quality and quantity of adherence (Clarke et al., 2013; Nock & Kazdin, 2005).

Measurement of PPE: Development and Psychometrics—Almost half of all measures (48%; $n=16$) were specifically designed to measure parent adherence to a structured treatment protocol (e.g., completing assigned homework, participation in structured activities and assessments). All measures were created by their respective research team for the purpose of examining PPE in their own study. Only 27% ($n=9$) of measures (within 8 articles) provided psychometric information. All 8 articles provided a reliability estimate, typically interrater reliability for coding of observations or homework completion. Estimates varied but all were in the acceptable range (e.g., ICC .4; Cicchetti, 1994). Only two articles mentioned any effort to validate the PPE measure; one described discriminant validity and the other convergent validity.

Measurement of PPE: Measurement Process—Of the 33 measures of PPE, 48% ($n=16$) were administered by survey (12 to providers, 4 to parents), 30% ($n=10$) by coding homework completion (two articles utilized the research team as coders, two articles utilized the therapist, and six articles did not specify), 15% ($n=5$) by observing treatment via videotape (one article utilized research assistants as coders, one article utilized professional coders, and three articles did not specify), 3% ($n=1$) by interview, and 3% ($n=1$) by chart review. A total of 27% ($n=9$) measures were measured at each session, 24% ($n=8$) were measured at regular intervals or standard points of service, 15% ($n=5$) were measured retrospectively at the end of the service, and 12% ($n=4$) were measured once during service delivery. The administration plan was unspecified for five measures.

Question #3: What Are the Rates of PPE Reported in Studies of Child and Family Mental Health Treatment?

A total of 38% ($n=9$) of articles included an average rate of PPE across study participants (Brookman-Frazee et al., 2012; Chacko et al., 2008; Clarke et al., 2013; Eyberg & Johnson, 1974; Fabiano et al., 2009; Fawley-King et al., 2012; Hansen & Warner, 1994; Jensen & Grimes, 2010; Kendall, 1994). Most of the measures of PPE represented here were

homework completion (78%; $n=7$). A total of 67% ($n=6$) of those articles reported an average completion rate across all sessions; the average rate was 49%, with a range from 19% to 89%. Few studies of global parent participation or specific parent participation behaviors in clinical interactions reported average rates. Kendall (1994) reported moderate rates of beneficial and interfering PPE (3.2 and 3.4, respectively; range 1–7). Brookman-Frazee and colleagues (2012) reported a high average rate for a measure that assessed parent participation in therapeutic activities and collaboration with the therapist across treatment planning and active treatment phases (4.1 on a 1–5 scale). Eyberg and Johnson (1974) also reported a high average global rating of parent participation rate of 5.8 (range 1–7).

Question #4: Does PPE Overlap Consistently with Attendance Engagement?

Six articles (25%) examined the links between PPE and attendance engagement (Bickman et al., 1998; Chamberlain et al., 1984; Dumas & Albin, 1986; Noser & Bickman, 2000; Prinz & Miller, 1994; Richards et al., 2008). The attendance engagement measures included number of sessions attended and retention in treatment. All six articles found significant positive associations between PPE and attendance.

Question #5: What Factors Have Been Identified as Associated with PPE?

The ecological framework (e.g., Miller et al., 2008) was utilized to organize the 11 articles (46%) that examined factors associated with PPE (see Table 3). Of those articles, six utilized longitudinal designs and six used multivariate analyses.

Child factors—Two articles examined child level factors (see Table 3). Significant associations included ethnicity (lower PPE for Spanish-speaking Hispanic children; Fawley-King et al., 2012), presence of a medical condition (associated with higher PPE; Fawley-King et al., 2012) and previous service use (associated with lower PPE; Dumas & Albin, 1986). No significant associations were found for age, gender, or perceived improvement due to services (Fawley-King et al., 2012).

Parent/family factors—Nine articles examined parent/family level factors (see Table 3). Significant associations included parent sociodemographics (younger age, female, higher income, more education, employed, and father presence/both parents attending services linked to more PPE; Dumas & Albin, 1986; Hansen & Warner, 1994; Jensen & Grimes, 2010; Podell & Kendall, 2011), referral source (agency referral linked to lower PPE than self-referral; Chamberlain et al., 1984), parent functioning (more antisocial behavior and depressed mood linked to lower PPE; Stoolmiller et al., 1993), parenting (poorer discipline practices linked to lower PPE; Stoolmiller et al., 1993), and early poor PPE linked to later poor PPE (Chamberlain et al., 1984). In addition, two articles included indicators of attitudinal engagement (see Figure 1) and found that greater satisfaction, motivation, and perceived barriers were linked to more PPE (Fawley-King et al., 2012; Nock & Kazdin, 2005). Nonsignificant results were found for education level (Dumas & Albin, 1986), referral source (Dumas & Albin, 1986), parent functioning (Dumas & Albin, 1986; Podell & Kendall, 2011; Stoolmiller et al., 1993), perceived support outside the mental health treatment system (Fawley-King et al., 2012), history of marital violence (Dumas & Albin, 1986), family size (Dumas & Albin, 1986), and change in knowledge and efficacy to

navigate the child mental health service system as a result of a strategy to improve PPE (Bickman et al., 1998).

Provider factors—One article examined provider factors (see Table 3). The article examined providers' verbal behavior during treatment sessions and found that more directive and confrontational verbalizations were associated with poorer PPE (Patterson & Forgatch, 1985).

Service factors—Five articles examined service factors (see Table 3). Significant associations included phase of treatment (poorest PPE at middle phase of treatment, Chamberlain et al., 1984; better PPE earlier than later in treatment, Clarke et al., 2013), amount of time in treatment (longer time in treatment, more PPE; Fawley-King et al., 2012), and service location (clinic sessions less PPE than other locations; Hansen & Warner 1994). The one nonsignificant finding was for amount of time in treatment (no change in PPE over the course of treatment; Chacko et al., 2012).

Question #6: Is PPE Associated with Improved Outcomes?

A total of 38% (n=9) articles examined whether PPE was associated with improved outcomes (see Table 4). Of those nine articles, rigorous methods were utilized in some (four studies utilized longitudinal designs and seven used multivariate analyses). No studies examined PPE as a mediator or moderator of treatment outcomes. Outcomes were coded based on Hoagwood et al.'s (2012) classification of outcome domains for child and family mental health treatment, which includes child symptoms and diagnoses, parental symptoms and diagnoses, child functioning/impairment, consumer-oriented perspectives, interpersonal and environmental contexts, services/systems, and health. Observed outcome domains in this review include symptoms and diagnoses, functioning/impairment, interpersonal and environmental contexts, and services/systems.

Symptoms and diagnoses—Seven articles (29%) examined links between PPE and symptoms (Clarke et al., 2013; Chamberlain et al., 1984; Kendall, 1994; Kendall et al., 1997; Noser & Bickman, 2000; Podell & Kendall, 2011; Stoolmiller et al., 1993). The most commonly used outcome measures were standardized parent, teacher, and provider surveys (six of the seven articles used a survey). One article included provider-rated treatment success (Chamberlain et al., 1984). Another article included a trained observer's ratings of behavior problems during home visits (Stoolmiller et al., 1993).

As indicated in Table 4, of the seven articles, three found significant positive associations between PPE and a measure of symptom improvement (Chamberlain et al., 1984; Kendall, 1994; Podell & Kendall, 2011). The significant symptom outcome measures in these articles ranged across child, parent, and provider reports. The significant PPE measures in these three articles included provider-reported global parent participation and specific parent participation behaviors in clinical interactions.

Functioning and impairment—Three articles examined links between PPE and functioning or impairment and all three found significant positive associations between PPE and improved functioning/reduced impairment (see Table 4). One article (Clarke et al.,

2013) examined the child client's homework performance and academic productivity and found significant associations between parent homework completion and reduced child problems with academic homework completion. This article also found some nonsignificant results on additional measures of school impairment. The second article (Noser & Bickman, 2000) found a significant association between parent-reported global parent participation and the parent-rated Child and Adolescent Functional Assessment Scale (CAFAS; Hodges et al., 1991). A provider-rated functioning measure was not significant. The third article (Richards et al., 2008) found a significant link between parent homework completion per chart review and impairment based on the CAFAS.

Interpersonal and environmental contexts—Two articles tested associations between PPE and interpersonal or environmental contexts that affect children (e.g., parenting, parent-child relationship, family functioning, and peer-related outcomes) (see Table 4). Outcomes observed in this review focused on parenting. The first article (Clarke et al., 2013) found significant positive associations between homework completion and both parent involvement in the child's education and positive parenting practices, but not negative parenting practices. The second article (Dumas & Albin, 1986) did not find a significant association between homework completion and a composite that included positive parenting practices.

Services/systems—Two articles examined associations between PPE and services/systems (see Table 4). One study (Stoolmiller et al., 1993) found a significant positive association between parental resistance to participating in treatment and child arrests. The second article (Dumas & Albin, 1986) examined the link between homework completion and a composite that included child's use of additional services and did not find a significant effect.

Question #7: What Strategies Have Been Designed to Improve PPE and Are Such Strategies Associated with Improved Outcomes?

Ten articles examined whether a strategy to improve PPE was effective. An additional article described an intervention but did not include a comparison group to examine effects on outcomes (Chacko et al., 2008). To organize the strategies conceptually across these 10 articles, the first author post-hoc determined which of 22 distinct engagement strategy descriptions from Lindsey et al.'s review applied to each observed strategy in this review (see Table 5). Observed PPE improvement strategies based on Lindsey et al.'s descriptions included: (1) provider reinforcement practices (Eyberg & Johnson 1974; Fleischman, 1979); (2) assessment of treatment barriers, expectation setting, problem solving, and parent coping (Chacko et al., 2012; Chacko et al., 2008; Chacko et al., 2009; Prinz & Miller, 1994); (3) accessibility promotion and expectation setting (Fabiano et al., 2009; Jensen & Grimes, 2010); (4) change talk and assessment of treatment barriers (Nock & Kazdin, 2005); (5) psychoeducation and peer pairing to support parents' PPE (Bickman et al., 1998); and (6) provider rapport building (Patterson & Forgatch, 1985). It should be noted that six of the 10 articles in this review were included in the Lindsey et al. (2013) paper.

As noted in Table 5, a large majority of the articles found significant improvements on PPE. Half of the articles mentioned some assessment of fidelity, but only three articles reported on a fidelity measure. Four of the articles that found significant effects for a PPE intervention provided incentives for parents to participate in treatment that are not typically part of service delivery systems, including weekend sessions, child care, and payment. It is also notable that nine of the articles focused on a structured treatment protocol with only one article examining usual care (Bickman et al., 1998). No articles reporting PPE improvement strategies used a conceptual framework to guide their design or implementation.

Discussion

A total of 23 published articles examined parent participation engagement (PPE) in child and family mental health treatment, with half published since 2000. These numbers indicate that understanding and improving PPE is of growing importance to the field. This discussion will start with interpretation of the results for each question posed by the review, followed by clinical practice implications, limitations of the review, and future research directions.

Question #1: What Terms Are Used to Represent PPE?

Wide variability was found in the terms used to represent the PPE construct. The most common (and most general) term, “involvement,” was found in only one third of the articles. Another broad term, “engagement,” was also frequently used. Recommendations to increase consistency in use of terms are discussed in the future directions section below.

Question #2: How is PPE Measured?

This review found fairly equal distribution of the use of global measures, homework, and completion specific participation behavior measures, with homework completion most frequently used and specific participation behavior measures least frequently used. A wide range of types of PPE measures were utilized, from objective homework completion to parent and provider ratings to chart review to observational coding of treatment sessions. Similar to a recent review of adult measures of overall engagement (Tetley et al., 2011), this review’s findings indicate that much work is needed to improve the measurement of PPE. Many PPE measures did not report psychometrics, and every research team used their own measure, which can make comparisons across studies challenging. The relatively higher frequency of homework completion measures is consistent with a high prevalence of studies examining PPE in structured treatment protocols for children and families that typically include an emphasis on homework (Garland et al., 2010a). Observational data of usual care treatment for children and families have demonstrated that homework assignment and review rarely occur (Garland et al., 2010b). While homework completion may be a relatively easy and valid measure of PPE, it is important to note that it does not reflect skill acquisition or generalization (Clarke et al., 2013; Lindhiem et al., 2014) or active participation and learning in sessions. The relatively lower frequency of measures of specific parent participation behaviors in clinical interactions indicates less focused attention in the literature to specific parent interactions with providers. In addition, most treatment took place in clinics, which include fewer distractions and more resources than other mental health treatment service settings (Lindhiem & Kolko, 2010). This finding is consistent with

a review of engagement interventions (Ingoldsby, 2010) but is concerning to the generalizability of results given clinic-based treatment is becoming less common (Atkins & Lakind, 2013).

Question #3: What Are the Rates of PPE Reported in Studies of Child and Family Mental Health Treatment?

The available data on rates of PPE indicate a range of PPE across measure categories. The reported rates may have varied based on the nature of the treatment. For example, one study focused primarily on child individual treatment, which may explain the moderate rate of PPE observed (Kendall, 1994), while two other studies that found higher rates of PPE examined interventions that focused either directly (Eyberg & Johnson, 1974) or indirectly (Brookman-Frazee et al., 2012) on improving PPE. For homework completion, both the lowest rating (Fabiano et al., 2009) and the highest rating (Eyberg & Johnson, 1974) articles examined strategies to improve PPE, although Fabiano and colleagues focused exclusively on fathers, a group that poses many unique engagement challenges in the context of mental health treatment (Fabiano, 2007). Of course, variability in method of measurement, reporter, and timing of assessment may also impact these average ratings. It is important to note that few studies provided an average rate of PPE and the majority of articles that did examined structured treatment protocols. Thus, the PPE rates reported here should be interpreted with caution. Further, an average rate across treatment may not be the most appropriate indicator of PPE. For example, a recent study of parent attendance engagement in a child and parent prevention program found that child level of engagement early in the program predicted parent attendance later in the program; the authors suggest that parents may wait to see how the child responds to services before engaging themselves (Ellis et al., 2013).

Question #4: Does PPE Overlap Consistently with Attendance Engagement?

The review documented a consistent association between PPE and attendance, which is not surprising and may be an artifact of participation being dependent to a large degree on attendance. The more a parent is present at treatment, the greater his/her opportunities to participate. However, attendance may be necessary for participation but it is not sufficient (Staudt, 2007). Parents can bring their children to treatment and even be physically present but still not participate in session activities, discussions, and/or homework.

Question #5: What Factors Have Been Identified as Associated with PPE?

Only two articles examined child-level factors, making it difficult to detect any patterns within this level. Consistent with the attendance engagement literature, the one study to examine child race/ethnicity found lower PPE for Hispanic children. The child characteristic most consistently associated with attendance engagement, child symptom severity, was notably absent from the literature. Severity of child behavior problems and resulting caregiver strain may impact PPE due to competing demands and depleted resources. Although the one study that examined child age did not find significant effects, participation researchers have suggested the importance of attending to child developmental level, in particular how the parent's role in treatment can change across infancy through early adulthood (Macdonald et al., 2007).

The overwhelming majority of factors examined were at the parent/family level, which is consistent with the review's focus on a parent-level outcome. The pattern of significant results across types of parent/family level factors was equivocal; many factors were significant in some studies but not significant in others. The two articles that examined links between attitudinal engagement and PPE found positive associations, which supports our working model of engagement (see Figure 1). No articles examined racial/ethnic background as a predictor of PPE (and only six articles included race/ethnicity of the parent), which is likely to vary given links between race/ethnicity and both attendance engagement (e.g., Armbruster & Fallon, 1994; McCabe, 2002) and quality of communication between client and provider (Alegria et al., 2013). Further, no articles examined links between alliance and PPE. A positive relationship with the provider is likely to keep parents participating in treatment. Studies have shown that families who experience a bond with the provider and engage in a collaborative relationship to develop tasks and treatment goals are more likely to engage in treatment and remain in treatment longer (Flicker et al., 2008; Hawley & Weisz 2005; Orrell-Valente et al., 1999; Robbins et al., 2006; Thompson et al., 2007). There was also little attention in the literature to barriers associated with PPE, with only one study examining associations between number of barriers and PPE and, interestingly, finding a positive association (Fawley-King et al., 2012). The study authors posit that the positive association may represent more opportunities to encounter barriers when PPE is higher. Barriers to attendance engagement, including both concrete and perceptual barriers, have been examined thoroughly in that literature (Gopalan et al., 2010).

Only one article examined provider level factors associated with PPE. Data suggest that provider-level factors are linked to attendance engagement (Garland et al., 2012) and providers' provision of opportunities for parents to be active participants in treatment varies (Haine-Schlagel et al., 2012). Service-level predictor analyses were also limited. Existing findings did yield inconsistent results regarding the effects of time in treatment on PPE (Chacko et al., 2012; Fawley-King et al., 2012), which may be a result of study population and design. Chacko et al. did not find changes in PPE (namely homework completion) over the course of treatment, which may be a function of examining a nine-week structured parent training treatment with homework completion expectations. In contrast, Fawley-King et al. found an association between time in treatment and parent-reported PPE behaviors in a cross-sectional survey of parents whose children were receiving publicly funded mental health services. The question still remains regarding the way phase of treatment and/or length of time in treatment impacts PPE (Ellis et al., 2013).

No articles examined factors at the organizational/program level associated with PPE. One study of parent attendance that assessed variability associated with program found a minimal effect ($ICC = .02$; Israel et al., 2007); however, an unpublished program-level ICC for a new survey measure of PPE administered to a large community sample was .06 (Haine-Schlagel, Roesch, Trask, Fawley-King, Ganger, & Aarons, in preparation), indicating significant variability in PPE may be due to the program in which the family was served.

Question #6: Is PPE Associated with Improved Outcomes?

The only consistent link between PPE and outcomes was found in the domain of functioning and impairment, with equivocal findings in the other outcome domains examined. These findings suggest that PPE may be an important factor to consider in improving the quality of mental health treatment. The results are also somewhat consistent with two meta-analyses that concluded that greater homework compliance was related to greater improvement in target outcomes (Kazantzis et al., 2010; Mausbach et al., 2010).

The symptom domain was examined in the largest number of articles, and no clear patterns of differences were found between the three articles that found significant effects on symptoms and the four that did not. Two research teams had an article in each group with similar PPE and outcome measures (Chamberlain et al., 1984; Kendall, 1994; Kendall, et al., 1997; Stoolmiller et al., 1993). Of the three articles with significant findings, two were by the same research group (Kendall, 1994; Podell & Kendall, 2011). Also notable is that two of the articles that found significant effects also found nonsignificant effects on other measures of symptoms (Chamberlain et al., 1984; Podell & Kendall, 2011) with no apparent pattern across measures or time points.

Noticeably unexamined were any outcome measures capturing the parent symptom domain, but the extant articles did examine a range of outcome domains and the great majority of articles utilized a longitudinal design to facilitate assumptions of causality. The lack of consistent associations between PPE and outcome improvements may reflect the strength of the associations, or alternatively may suggest that the relationship between PPE and outcomes is not always linear. Further, child and parent/family factors may moderate links to outcomes such that some families may not be able to benefit from treatment no matter how much PPE is exhibited. Variability in the measurement of PPE and of outcomes may also play a role.

Question #7: What Strategies Have Been Designed to Improve PPE and Are Such Strategies Associated with Improved Outcomes?

Overall, consistent significant associations between PPE improvement strategies and outcomes were found, indicating that experimental manipulations of PPE are associated with enhanced outcomes. However, no articles drew from a conceptual framework to guide intervention design or implementation, reports of formal fidelity measurement were limited, and very few articles examined efforts to improve PPE outside of structured treatment protocols, all of which limit the interpretability of the findings. The positive PPE improvement strategy results, along with the consistent (but not complete) conceptual overlap between attendance engagement and PPE measures, suggest that a combination of effective strategies focused on PPE and attendance engagement may be optimal. A post-hoc analysis of this review's PPE improvement strategy results was conducted to examine effects on attendance engagement. Eight of the 10 articles also examined attendance engagement outcomes, and all found significant improvements except for one, which cited a ceiling effect of high attendance as the explanation for nonsignificant results. These post-hoc findings reinforce the strong overlap between PPE and attendance engagement and suggest that the same strategies may be effective for both engagement outcomes. However, it is

important to note that specific parent participation behaviors in clinical interactions were not well-represented in the improvement strategy articles and that the observed overlap between PPE and attendance engagement does not encompass that category of PPE measures.

Clinical Practice Implications

Although the available data on rates of PPE are somewhat limited, the results of this review indicate an overall moderate rate of PPE, leaving room for improvement. The data suggest that PPE may be linked to positive outcomes and that efforts to improve PPE are effective. Although the majority of the PPE improvement strategies have not been tested in usual care, clinics and providers may draw from strategies developed and tested in the context of structured treatment protocols to improve PPE in the families they serve. In addition, treatment developers and implementers may want to consider building these strategies into their structured treatment protocols to enhance PPE, in particular if the structured treatment is targeting functioning and impairment.

The results also indicate that parents are involved in treatment in many ways across both standardized treatment protocols and usual care. However, observational data of usual care indicate that the amount of parent presence in sessions is somewhat limited. One study found that providers included the parent in session activities on average only 44% of the time within a session, with significant variability across families and providers (Haine-Schlagel et al., 2012). The lack of clear patterns regarding child, parent, and provider characteristics associated with PPE suggests that future research is needed to determine whether efforts to enhance PPE may need to be tailored to client, family, and provider characteristics.

Although this review provides some indication that more PPE may be beneficial to outcomes and that efforts to improve PPE may be an important factor to improve the quality and effectiveness of child and family mental health treatment, Staudt (2007) provides some applicable caveats to the evidence. First, we must remember that parents have the right to decide the degree to which they want to be involved in treatment. Second, attempts to improve PPE must ensure that such efforts are not viewed by families as coercive or intrusive. However, several therapeutic orientations and interventions view parental involvement as an integral component of child psychotherapy (e.g., family systems therapy). For therapists and interventions that subscribe to this view, efforts to improve PPE become all the more essential. Regardless of clinical orientation, both parent and provider acceptability data on PPE improvement strategies are needed to ensure families view such strategies positively. In addition, there may be rare safety and/or ethical reasons for not involving some parents in their children's treatment.

Limitations of This Review

This review has several limitations that should be noted. First, as with any review, this effort was limited by the available research evidence. No efforts were made to obtain additional information from study authors so findings were only based on what was available in the published articles. Second, this review did not include studies focused on other service contexts, including prevention studies where children are screened first and then families are

invited to receive services as part of participation in a study, services exclusively located in residential treatment centers and inpatient hospitals, and family support services. Understanding PPE for those services is critical to promoting their effectiveness (e.g., Colson et al., 1991; DeGarmo et al., 2009; Olin et al., 2010). Third, this review was limited to parent participation, but child participation is also an important component of behavioral engagement in services (see Figure 1). Fourth, while it is reasonable to surmise that the association between PPE and intervention outcomes may be affected by a child's diagnosis, the studies eligible for inclusion in the current review did not provide enough breadth of diagnosis type to allow for an evaluation of this additional dimension. The majority of the studies included in this review (76%, $n = 16$) targeted disruptive behavior disorders and Attention Deficit Hyperactivity Disorder, where structured treatment protocols place a significant emphasis on parent participation, but there is some research to suggest that parental involvement in the treatment of childhood anxiety disorders may not have an additive impact (e.g., In-Ablon & Schneider, 2007), perhaps due to the reduced emphasis on parent involvement in these protocols as compared to those for disruptive behavior disorders or the specific characteristics of the children and parents served. Unfortunately, until there is more research investigating PPE across different childhood disorders, it will be difficult to determine how or whether diagnosis type is associated with PPE.

In addition to the limitations of the review itself, there are some limitations of the articles the review is based on that are worth noting. First, most identified articles examined structured treatment protocols rather than usual care treatment, which limits the generalizability of findings. PPE is implicitly required for the success of all evidence-based treatments given their focus on skills and the requirement that participants practice skills outside of sessions (Garland et al., 2008). It is likely that studies of structured treatment protocols observed greater PPE due to a selection bias with engaged families selecting to participate in such studies, as well as the provision of explicit treatment expectations. Further, given community mental health centers report lower levels of attendance engagement and higher drop-out rates than research settings (McKay & Bannon, 2004), results should be interpreted with caution in terms of generalizability to usual care.

Second, consistent with the broader child and family mental health treatment literature (Baker-Ericzén et al., 2010), a dearth of studies examined large proportions of racial/ethnic minority families or families from low socioeconomic status backgrounds. This finding is inconsistent with the attendance engagement literature, which has focused some attention to diverse, low-income families and services (e.g., McCabe, 2002; McKay et al., 1996a; McKay et al., 1996b; McKay et al., 1998; Sanisteban et al., 1996). The lack of focus on PPE in families from diverse and low socioeconomic status backgrounds is concerning given the observed links between those family characteristics and poor attendance, premature treatment termination, and less PPE in preventive interventions (McCabe, 2002; Orrell-Valente et al., 1999; Snell-Johns & Smith, 2004).

Future Research Directions

Several recommendations for future PPE research can be generated from this review. First, it is recommended that future research utilize one consistent term to represent behavioral

engagement: “participation engagement” or “participation.” Researchers are encouraged to refrain from using the term “engagement” unless referring to the broader construct, and to apply a more descriptive term based on the framework presented in Figure 1 when applicable (e.g., if focusing exclusively on attendance, use the term attendance engagement). Researchers are also encouraged to utilize common measures of PPE to facilitate comparison across studies. Second, the field would benefit from improved measurement of PPE and more studies on specific parent participation behaviors in clinical interactions. A PPE measure is currently under development (Haine-Schlagel et al., in preparation) that is designed to be used across services and contexts and assesses a number of specific parent participation behaviors. Third, it is recommended that researchers publish average rates of PPE along with the standard deviation to allow a fuller picture of PPE across study samples. Fourth, research on PPE improvement strategies can benefit from examining moderators to understand for whom PPE strategies are and are not working.

This review has also generated some broad future directions for the field. First, more studies are needed of child, provider, and organizational factors that may be associated with PPE to assess similarities and differences to factors associated with attendance engagement (e.g., Gopalan et al., 2010) and to further understand the role each stakeholder/level plays in PPE. Examining the links between attitudinal engagement and PPE may be one of the most important areas to examine in the future, as such links can inform future PPE improvement strategies given some specific attitudes (e.g., parent perspectives on usefulness, reasonability, alignment with treatment goals/strategies and homework assignment) may be more important than others in encouraging and supporting PPE (Clarke et al., 2013). Second, studies should include a wider range of outcome domains to assess whether PPE is associated with the broad range of possible treatment effects (Hoagwood et al., 2012). Decisions regarding how to operationalize and measure target outcomes can have a significant impact on the accurate evaluation of potentially important predictors of intervention effects. Limiting the types of outcome domains included in a given study may result in erroneous findings regarding the associations between PPE and treatment outcomes. Third, PPE improvement strategies should be guided by a conceptual framework to allow the intervention theory to be tested. For example, the Unified Theory of Behavior (UTB; Jaccard et al., 2002) that has been applied to family support interventions (e.g., Olin et al., 2010) could be applied to PPE interventions. Future studies are also needed to dismantle PPE improvement strategies (Chacko et al., 2012) and understand mechanisms of change to improve PPE. Very few effective PPE improvement strategies from this review systematically examined fidelity so it is unclear whether the strategy itself resulted in observed improvements in PPE. Fourth, more studies on PPE in usual care across a range of outpatient settings (e.g., school, home, community) are needed. Studies of PPE in usual care can generate practice-based evidence to support efforts to increase PPE as a quality indicator (Garland et al., 2013) and integrate PPE into the implementation of parent-mediated evidence-based practices (Clarke et al., 2013). Finally, additional studies are needed that examine PPE in culturally diverse families and families from low socioeconomic backgrounds receiving child and family mental health treatment services.

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Figure 1.
Model of Engagement in Child and Family Mental Health Services.

Table 1

Descriptives on Article Context and Service Delivery

<i>Variable</i>	<i>Percentage (n)</i>
Treatment type	
Structured treatment protocol	83% (n=20)
Treatment as usual	17% (n=4)
Treatment provided as part of research study	46% (n=11)
Setting	
Academic and/or community outpatient clinic	88% (n=21)
School	13% (n=3)
Home-based	8% (n=2)
Ways parents included in treatment	
Individual parent-only	38% (n=9)
Group parent-only	25% (n=6)
Parent phone contact	13% (n=3)
Individual family	33% (n=8)
Group family	4% (n=1)
Family-school consultation	4% (n=1)
Home visits	4% (n=1)
Child-only	25% (n=6)

Note: The unit is article (total n varies by variable).

Table 2

Descriptives on Child, Parent/Family, and Provider Characteristics within Articles

<i>Variable</i>	<i>Percentage (n)*</i>
Child Characteristics	
Target child disorder	88% (n=21)
Disruptive behavior disorders	52% (n=11)
Attention Deficit Hyperactivity Disorder	24% (n=5)
Anxiety disorders	14% (n=3)
Autism spectrum disorders	5% (n=1)
Child age	
Early childhood (0-4 years)	48% (n=10)
Middle childhood (5-12 years)	100% (n=21)
Adolescence (13-17 years)	52% (n=11)
Child gender	
Both male and female	89% (n=17)
Male-only	11% (n=2)
Child race/ethnicity	
Non-Hispanic Caucasian	100% (n=13)
African American	77% (n=10)
Asian/Pacific	23% (n=3)
Latino/Hispanic	62% (n=8)
Native American	8% (n=1)
Other	8% (n=1)
Multiracial/multiethnic	62% (n=8)
Parent/Family Characteristics	
Parent sample size	M=129; range 6-1,255
Parent gender	
Both male and female	60% (n=9)
Female-only	33% (n=5)
Male-only	6% (n=1)
Parent race/ethnicity	
Non-Hispanic Caucasian	100% (n=6)
African American	100% (n=6)
Asian/Pacific	66% (n=4)
Latino/Hispanic	66% (n=4)
Multiracial/multiethnic	33% (n=2)
High proportion of low SES	13% (n=3)
Provider Characteristics	
Provider sample size	M=16; range 2-105
Provider discipline	21% (n=5)
Psychology	100% (n=5)
Social work	40% (n=2)

Marriage and Family Therapy	20% (n=1)
Counseling	20% (n=1)
Education	20% (n=1)
Provider education level	
Doctoral level	38% (n=5)
Master's level	54% (n=7)
Graduate school	54% (n=7)
Bachelor's level	15% (n=2)
High school level	8% (n=1)

Note:

* unless otherwise indicated. SES = socioeconomic status. Unit is participant (total n varies by variable).

Table 3
Summary of Associations between Factors and PPE Across Ecological Framework Levels.

Article	Child	Parent/Family	Provider	Service	Study Quality
Bickman et al., 1998		Increased knowledge Increased efficacy			#
Chacko et al., 2012				Time in treatment	* #
Chamberlain et al., 1984		Initial PPE ⁺ Source of referral ⁺		Phase of treatment ⁺	* #
Dumas & Albin, 1986	Service use ⁺	Father presence ⁺ History of marital violence Maternal psychopathology history Income ⁺ Family size Maternal education level Source of referral			
Fawley-King et al., 2012	Age Gender Race ⁺ Improvement Medical condition ⁺	Satisfaction ⁺ Support outside mental health system Barriers ⁺		Length of time in treatment ⁺	#
Hansen & Warner, 1994		Parent ed level ⁺ Parent employment ⁺ Parent age ⁺		Location of service ⁺	
Jensen & Grimes, 2010		Both parents versus one parent attending ⁺			* #
Nock & Kazdin, 2005		Motivation ⁺			*
Patterson & Forgatch, 1985			Provider behavior ⁺		
Podell & Kendall, 2011		Parent gender ⁺ (mothers higher) Parent mental health diagnosis			*
Stoolmiller et al., 1993		Positive discipline practices ⁺ Maternal psychopathology ⁺ Maternal depressed mood ⁺ Maternal stress			* #

Note:

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+ significant association with PPE;
* = longitudinal design;
multivariate analyses.
Results are collapsed across PPE measures within each article.

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Table 4
Summary of PPE Associations with Outcomes Across Outcome Domains (based on Hoagwood et al., 2012).

Article	PPE Categories Measured	Symptoms	Functioning	Interpersonal/ Environmental Contexts	Services/Systems	Study Quality
Chamberlain et al., 1984	Specific	+				*
Clarke et al., 2013	Homework	ns	+	+		* #
Dumas & Albin, 1986	Homework			ns	ns	
Kendall, 1994	Global Specific	+				*
Kendall et al., 1997	Global Homework	ns				*
Noser & Bickman, 2000	Global	ns	+			#
Podell & Kendall, 2011	Specific	+				* #
Richards et al., 2008	Homework Specific		+			*
Stoolmiller et al., 1993	Specific	ns			+	* #

Note:

+ significant positive association with PPE demonstrated; ns = no significant associations with PPE demonstrated;

* = longitudinal design;

multivariate analyses.

Results are collapsed across PPE measures within each article. Global PPE measure category = broad measures of parents' participation in treatment that do not reflect a specific behavior in clinical interactions or homework completion; specific PPE measure category = specific parent participation behaviors in clinical interactions; homework completion PPE measure category = completion of a planned action for at home.

Table 5

Summary of Associations between PPE Improvement Strategies and Outcomes.

Article	PPE Improvement Strategy (coded post-hoc based on Lindsey et al., 2013)	PPE Categories Measured	Significant Results?	Fidelity Measured?
Bickman et al., 1998	Peer pairing Psychoeducation	Global Specific	ns	
Chacko et al., 2012	Assessment of treatment barriers Expectation setting Parent coping Problem solving	Homework	+	
Chacko et al., 2008	Assessment of treatment barriers Expectation setting Parent coping Problem solving	Homework	n/a	n/a
Chacko et al., 2009	Assessment of treatment barriers Expectation setting Parent coping Problem solving	Homework	+	* #
Eyberg & Johnson, 1974	Provider reinforcement	Global Homework	+	
Fabiano et al., 2009	Accessibility promotion	Homework	+	*
Fleischman, 1979	Provider reinforcement	Global Homework	+	
Jensen & Grimes, 2010	Accessibility promotion Expectation setting	Global	+	* #
Nock & Kazdin, 2005	Assessment of treatment barriers Change talk	Homework	+	*
Patterson & Forgatch, 1985	Rapport building	Specific	+	
Prinz & Miller, 1994	Case management Parent coping Problem solving	Global Homework	ns	* #

Note:

+ significant results; ns = not significant; n/a = not applicable;

* fidelity mentioned;

fidelity measure described.

Global PPE measure category = broad measures of parents' participation in treatment that do not reflect a specific behavior in clinical interactions or homework completion; specific PPE measure category = specific parent participation behaviors in clinical interactions; homework completion PPE measure category = completion of a planned action for at home.