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Therapists' Attitudes Toward Evidence-Based Practices and Implementation of Parent–Child Interaction Therapy

Melanie McDiarmid Nelson[1], Jenelle R. Shanley[2], Beverly W. Funderburk[1], and Elizabeth Bard[1]

Abstract

Child abuse and neglect affects many families each year, but evidence-based parent training programs can be instrumental in reducing maltreatment. Parent–Child Interaction Therapy, a parent training program developed for treatment of disruptive child behavior, has demonstrated effectiveness with families at risk of or exposed to child maltreatment. However, methods for disseminating this evidence-based intervention in community settings are not well understood. This study examined the association between community-based therapists' attitudes toward evidence-based practices (EBPs) and their participation in an implementation research project in which they received two forms of consultation. Results showed that therapists' self-reported unwillingness to diverge from EBPs was positively associated with their use of phone consultation and satisfaction with consultation. The degree to which therapists found EBPs appealing was positively associated with satisfaction as well. Open therapist attitudes toward EBPs were associated with greater attendance for online consultation. The next step in this line of research is to examine how therapists' attitudes toward EBPs can be improved, if changing attitudes affects therapist acquisition of treatment skills, and if such improvements enhance implementation efforts.

Keywords

abusive parents, child abuse, child maltreatment, dissemenation/implementation, evidence-based practice, parenting

Parent–Child Interaction Therapy (PCIT) is a short-term, skills-oriented behavioral parent training program originally designed to reduce child conduct problems in preschool age children (Zisser & Eyberg, 2010) that has been designated an evidence-based practice (EBP) for child abuse (California Child Welfare Clearinghouse for Evidence-Based Practice, 2006–2011). Drawing on attachment and behavior theories, PCIT aims to enhance the parent–child relationship, increase positive parenting skills, establish effective and consistent discipline practices and reduce children's disruptive behavior (Zisser & Eyberg, 2010). PCIT relies on acquisition of specific parenting skills through "coaching" sessions which involve the parent and child interacting while the therapist provides immediate feedback to the parent. PCIT has demonstrated moderate to large effect sizes in improved parenting skills, reduced child conduct problems, and lowered parenting stress (Boggs et al., 2004; Eisenstadt, Eyberg, McNeil, & Newcomb, 1993; Schuhmann, Foote, Eyberg, Boggs, & Algina, 1998). These treatment effects are stable over time (Boggs et al., 2004), and they generalize to untreated siblings (Brestan, Eyberg, Boggs, & Algina, 1997) and to the school environment (Funderburk et al., 1998; Maag & Reid, 1996).

For families referred for child maltreatment, a randomized controlled trial (RCT) of PCIT combined with a 6-week motivational-enhancement program demonstrated lower rates of child maltreatment recidivism for PCIT than standard psychoeducational parenting/anger management services (19% vs. 49%) at a median of 850 days following treatment completion (Chaffin et al., 2004). These results were replicated in another RCT with 192 families in an extremely high-risk population (mean of six prior child welfare reports; Chaffin et al., 2009; Chaffin, Funderburk, Bard, Valle, & Gurwitch, 2011). Thomas and Zimmer-Gembeck (2011) reported that randomly assigned mothers of families at risk of or experiencing child maltreatment who completed PCIT were less likely to be

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referred again to child welfare on average 4 years after treatment than mothers in the attention-only control group. Dramatic changes in maltreating parent behavior were demonstrated in the first three PCIT coaching sessions (Hakman, Chaffin, Funderburk, & Silovsky, 2009), highlighting the role of immediate feedback in changing dysfunctional parent–child interactions. Recent PCIT dissemination and implementation efforts have focused on training community-based therapists to provide PCIT effectively and with fidelity to increase the number of families served.

Recent efforts to conceptualize treatment implementation (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005) describe core implementation components ranging from selection to systems interventions. Selection involves choosing staff to implement the treatment, as well as selecting trainers and evaluators as needed. The second component of implementation efforts is staff training, followed by consultation and coaching. However, research on how to best operationalize these components, how the components (such as staff selection and training) interact with one another, and best methods for implementing new interventions, including PCIT, remains limited.

Training Methods

A meta-analysis of implementation approaches showed that techniques such as discussion, demonstrations, and role plays produced virtually *no* implementation of new skills in actual practice (Joyce & Showers, 2002). Examination of training manuals, workshops, and seminars has shown that these methods also are insufficient to achieve reliable and competent transfer of skills into practice (Herschell et al., 2009). In PCIT, reading the treatment manual alone or 3-day trainings (using role plays with individual feedback to therapists or videotape modeling) resulted in few therapists mastering the PCIT skills (Herschell et al., 2009). Studies of other EBTs have shown that supervision, particularly giving therapists feedback regarding fidelity, is more influential in implementation than workshops or manuals alone (Najavits et al., 2004; Riemer, Rosof-Williams, & Bickman; 2005). Supplementing workshop training with direct coaching and feedback to practitioners *in the actual practice setting* increased rates of effective EBT implementation from 5% to 95% in the practice setting (Joyce & Showers, 2002), suggesting direct coaching in the actual practice setting may be a critical training component.

In practice, however, implementation efforts may omit or abbreviate this consultation phase. When ongoing live mentoring is not feasible, a common option is phone consultation, but this method is often hampered by the limited correspondence between how trainees *talk about* their practice and how the practice *is behaviorally delivered*. Supplementing phone consultation with viewing session recordings may be helpful but is not equivalent to in vivo consultation. Effective consultation is one of the several key factors that influence successful EBP implementation (Kolko, Cohen, Mannarino, Baumann, & Knudsen, 2009). Therapist factors, such as attitude toward the adoption of EBT or rapport with the trainer, are also important to consider in EBT implementation (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Palinkas et al., 2008).

Therapist Factors

Therapist characteristics and attitudes toward EBP adoption represent personnel factors that have been shown to hinder EBP dissemination and implementation efforts (Herschell, McNeil, & McNeil, 2004). Enthusiasm for and allegiance to the EBP have been identified as key therapist factors (Palinkas et al., 2008). Therapists who reported a favorable first impression of the EBP and those with a good match between the clinician and treatment with regard to theoretical orientation and clinical experience were more likely to implement an EBP in the first 6 months after training (Palinkas et al., 2008; Riemer et al., 2005). Clinicians who are more adaptable (Palinkas et al., 2008) and those who come to training with some awareness of the skills being trained, as well as being open to building upon what they already know (Kolko et al., 2009), are more successful at implementing new EBPs. Therapists who view the EBP as easier to adopt or who see advantages of implementation as outweighing disadvantages may also be more likely to successfully implement a new EBP (Riemer et al., 2005). However, Herschell et al. (2009) reported that theoretical orientation did not predict increases in PCIT knowledge or skill after training.

Henggeler, Lee, and Burns (2002) identified several characteristics of EBPs that enhance their appeal to clinicians. Interventions are more appealing when they are perceived as (1) more advantageous than current practices, (2) congruent with current programs, (3) uncomplicated in delivery, (4) implemented gradually, and (5) having clearly observable outcomes. Stahmer and Aarons (2009) found an association between more years of experience and lower likelihood of adopting an EBP for treatment of children with autism spectrum disorders. The authors also reported that mental health service providers (e.g., child and family therapists, social workers) exhibited less favorable attitudes toward EBPs than education-based personnel (e.g., teachers, early childhood specialists), which they proposed may be due to attitudes about utility and applicability of EBPs in their practice. In a similar study (Beidas & Kendall, 2010), therapists with limited experience showed larger changes in their competence after training. The authors suggest that experienced therapists might feel more competent and comfortable with their current theoretical orientation, negatively impacting their allegiance toward the EBP. In a study examining four different manuals for treatment of cocaine dependence, 89% of clinicians reported that they felt strongly that they could conduct a manualized treatment, but 70% indicated that they would modify the treatment for their use (Najavits et al., 2004). This suggests that therapists often do not believe that manualized treatments are fully applicable to their clientele, a belief which likely negatively impacts treatment fidelity. Baumann, Kolko, Collins, and Herschell (2006) found that practitioners who treat families in which abuse has

occurred reported equivalent advantages and disadvantages to using a treatment manual, and many reported that they did not have experience with treatment manuals. These findings suggest that providers' attitudes toward implementing and sustaining fidelity can impact the success of efforts to implement EBPs.

Limitations of the Current Literature

Interventions such as PCIT have demonstrated efficacy in reducing the risk of child maltreatment, but they can only impact families who have access to the intervention. This limitation has spurred widespread dissemination of PCIT. However, little is known yet about factors involved in successful PCIT implementation (Herschell et al., 2009). Consideration of practitioner attitudes may be relevant to their engagement in the PCIT implementation process, particularly to their engagement in consultation. PCIT presents an implementation challenge because its live skills coaching approach is fairly complex in delivery, it is not readily amenable to gradual or "phased in" implementation, and it is different in delivery format from typical child/family services in most community agencies. The purpose of this study was to examine one factor, the impact of therapists' attitudes toward EBPs on their implementation of PCIT. It was expected that (1) therapists with more years of clinical experience would have less positive attitudes toward EBPs; (2) therapists who reported more favorable attitudes toward EBPs would enroll more PCIT cases; and (3) therapists who reported more favorable attitudes toward EBPs would participate in more consultation activities and would report greater satisfaction with consultation.

Method

Participants

One-hundred and seven (91% female) therapists from 34 community-based agencies in Oklahoma and Washington consented to participate in this study. Eleven agencies had a single therapist participating in the study, while the other 23 agencies had two or more therapists participating. The average therapist age was 37 years ($SD = 10.29$; range 26–61). The racial composition was 2% African American, 87% Caucasian, 4% Asian, 4% Native American/Alaska Native, and 3% other, with 5% reporting their ethnicity as Hispanic. The majority of therapists had Master's degrees (94%), and the degree disciplines were 46% Psychology, 27% Social Work, and 27% other disciplines. Most therapists reported their current predominant theoretical orientation as cognitive/behavioral (61%), with the next most common theory identified as family systems (22%). Seventy-seven percent of the therapists worked full time, with average weekly case loads of 15 cases ($SD = 8.65$). Therapists reported an average of 6 years experience in clinical service ($SD = 5.37$). Therapists were selected from community mental health agencies (typically serving children ages 3 and up) and health department child guidance clinics (typically seeing children from birth to age 12). All agencies served families in which child maltreatment has occurred, with 30% of agencies, such as domestic violence centers or agencies contracted with Child Welfare services, specializing in this form of treatment.

Procedure

Approval for this study was received from the University of Oklahoma Health Sciences Center Institution Review Board. This is a subset study of a larger project investigating training methods for community-based therapists who receive ongoing consultation for 12 months after their initial workshop training (typically 24–40 hr of didactic and experiential learning exercises). The current study focused on therapists who had completed (or had the opportunity to complete) their consultation period for the larger ongoing project. Data collection for this substudy began in September 2007 (at the onset of the parent project) and ended in March 2011. The parent study was still ongoing. The procedures described below occurred for both projects at the therapist level. The larger project also involved the collection of therapists' competency and fidelity observations and parent report data.

Two forms of ongoing consultation were available to all participating therapists: phone and online consultation. All therapists were for a total of 12 months of consultation eligible to receive 6 months of each mode of consultation. The parent study employed a multilevel interrupted time series (within-subjects) randomized design. Both phone and online consultation were applied to all of the participating agencies, but in staggered fashion using varying schedules. The point at which agencies implemented online consultation was chosen at random. Because of the expense associated with installation of teleconferencing equipment, all therapists received 6 consecutive months of online consultation, and then finished their consultation period with the remaining months needed to complete a total of 6 months of phone consultation. For example, a therapist randomized to 3 months of initial phone consultation would then complete 6 months of online consultation followed by an additional 3 months of phone consultation. See Table 1 for more information on the consultation schedule employed. All therapists within an agency received consultation on the same schedule, even if they began study participation at different times.

Consultants were four master's level therapists and four doctoral-level psychologists with considerable experience in PCIT. Three of the four doctoral-level consultants are certified as Master Trainers by PCIT International. All consultants had a minimum of 5 years' experience with PCIT, with four consultants each having over 15 years of experience. Standard procedures for conducting phone and online consultation were developed to ensure that consultations were uniform in format and that consistent data were recorded. Fidelity was not formally assessed but was addressed in weekly meetings with all consultants and periodic joint consultation.

Table 1. Illustration of Therapist Assignment to Consultation Schedule

Scheme (P/O/P in months)	Months of Consultation											
	1	2	3	4	5	6	7	8	9	10	11	12
0/6/6	O	O	O	O	O	O	P	P	P	P	P	P
1/6/5	P	O	O	O	O	O	O	P	P	P	P	P
2/6/4	P	P	O	O	O	O	O	O	P	P	P	P
3/6/3	P	P	P	O	O	O	O	O	O	P	P	P
4/6/2	P	P	P	P	O	O	O	O	O	O	P	P
5/6/1	P	P	P	P	P	O	O	O	O	O	O	P
6/6/0	P	P	P	P	P	P	O	O	O	O	O	O

Note. Randomization was at the agency level; all therapists at a single agency followed the same consultation schedule. P = phone consultation; O = online consultation.

Therapists were informed of the study and those who agreed to participate signed consent forms and completed initial study measures (before participating in any consultation).Therapists again completed the self-report measure of attitudes toward EBPs and the evaluation of consultation form when they switched consultation type (e.g., phone to online or online to phone) and when their consultation period ended. To improve participation, forms were sent via electronic mail to therapists, with hard copies sent via postal mail to therapists who did not respond. For baseline measures, 94% of therapists returned measures. At the end of consultation, 52% of therapists returned measures. Lower participation at postintervention is typical, but the rate of nonresponders was attributed to agency turnover and competing demands for agency clinicians with challenging productivity demands.

Phone consultation. Phone consultation consisted of a weekly hour-long phone conference with a PCIT consultant and other newly trained therapists (number of therapists varied from 2 to 10 per phone call). Therapists were scheduled for one phone conference per week at a consistent time, chosen at their convenience, and given the option to attend a different phone conference (usually at least two held daily) if needed. Therapists were given a toll-free phone number to call to join the phone conference, allowing them to call in from any phone. During each weekly call, the consultant discussed individual cases with each therapist and answered any questions. Therapists were able to discuss all of their PCIT cases during the phone conference. Therapists were encouraged to attend a minimum of 80% of available phone consultations, regardless of whether they had seen any PCIT cases. Consultants documented therapists' attendance, as well as when phone consultation sessions were cancelled. For this study, the percentage of attended phone consultation was calculated by dividing the number of phone consultation sessions attended by total number of possible sessions. The average percentage attended of phone consultations for therapists who completed 12 months of consultation was 62% and for noncompleters was 66%. Of the 107 therapists enrolled, 71% ($n = 75$) were eligible for a minimum of 6 months of phone consultation; an additional 29% were therapists who voluntarily withdrew from the project prematurely.

Online consultation. Online consultation was provided via a Polycom model VSX3000 system, using high bandwidth and dedicated, encrypted network connections. With this system, the online consultant was able to (1) observe parent–child interactions at the remote location in real time; (2) observe the PCIT therapist's coaching; and (3) give direct and private feedback to the therapist. The consultant's equipment was able to be deployed in any office with a dedicated network port and dedicated Internet Protocol address using software on a laptop or notebook computer with a webcam or stand-alone Polycom equipment. Therapists were able to see and talk with the consultant during their session. Equipment on the trainee's side was a compact desktop setup, contained behind the one-way mirror. Technical support was provided by the consultants, often in conjunction with the agency's information technology staff. Several agencies were unable to install online consultation equipment; in most cases, this failure was related to inadequate agency readiness rather than problems unique to online consultation. Specifically, three agencies did not set up a PCIT treatment room with adjoining observation room during the consultation period; two agencies withdrew from participation in the project before beginning any form of consultation, and four agencies received only telephone consultation because their case load was so limited that online consultation was not feasible. Once agencies entered the online consultation condition, technical difficulties (ranging from firewall issues to accidentally pressing the mute button) resulted in failed consultation for only approximately 5% of scheduled sessions.

During the online consultation period, the therapists sent weekly e-mails to schedule online consultation for their PCIT cases. If therapists had more than one enrolled PCIT case, they were encouraged to make the consulting team aware of all sessions, so that at least one session per week could be observed, even if some sessions did not occur (i.e., clients cancelled or did not show). Therapists typically received consultation only regarding the client seen in the observed session during online consultation, although consultants would answer other questions when asked.

Participation in online consultation was dependent on seeing PCIT cases; that is, if a therapist was not seeing any families for PCIT, there would be no sessions to observe, and therefore, no consultation was provided. Online consultation data were collected using a standardized form completed by the consultant upon completion (or cancellation) of the session, noting the details of sessions that occurred or documenting the reason for not occurring (e.g., therapist cancelled, family no showed). For the purposes of this study, percentage of online consultation attendance was calculated by dividing the number of online consultation sessions attended by the total sum of attended, therapist's cancelled, and therapist's no showed online consultation sessions; client cancellations or missed appointments did not reduce the

therapist's percentage of online consultation attendance. The average percentage of attended online consultation was 70% for completers and 56% for noncompleters. Seventy-eight percent ($n = 81$) of therapists were offered at least 6 months of online consultation. Twenty-two percent of therapists failed to complete 6 months of online consultation.

Measures

Demographic form. This form assesses basic demographic information (age, gender, and race) as well as theoretical orientation, years of experience, number of cases, and amount of supervision received. It was completed when therapists consented to participate in the study.

The Evidence-Based Practice Attitude scale (EBPAS; Aarons, 2004). The EBPAS is a 15-item measure that assesses therapists' attitudes toward adoption of manualized evidence-based treatments. The 15 items were theoretically divided into four subscales, and these four factors were upheld in a factor analysis (Aarons, 2004). The *requirements* subscale (3 items) assesses therapists' perspective on who is expecting them to carry out the EBP (e.g., supervisor and agency). The *appeal* subscale (4 items) evaluates how appealing EBPs are to the therapist. The *openness* subscale (4 items) measures how open a therapist is to implementing an EBP. Finally, the *divergence* subscale examines therapists' likelihood to diverge from the protocols of EBPs (these items are reverse scored for the Total scale score). The psychometric properties are acceptable (see Aarons, 2004). The EBPAS was completed by participating therapists at the time of study enrollment, at phase changes (e.g., online to phone consultation), and upon completion of consultation. For the purposes of this project, therapists' pre-consultation EBPAS subscales were used in the analyses. The Cronbach αs for the completed therapists' sample of this study were .92 (Requirements), .80 (Appeal), .81 (Openness), .57 (Divergence) and .83 (Total). These αs are similar to those found by Aarons (2004), including the Divergence subscale ($\alpha = .59$). The original factor structure was also upheld in the current study's sample.

Consultation Evaluation Form. This form is a 28-item satisfaction measure that assesses practitioners' opinion of consultations. This measure was collected at each consultation phase change (e.g., phone to remote live consultation), and upon completion of their consultation period. For the purposes of this study, therapists' average ratings on the 10 Likert-type scale items (1 = *Poor* to 5 = *Excellent*) evaluating phone and remote real time consultation were used in the analyses. Only the therapists' evaluations at the end of their consultation period, when they had maximum opportunity to participate in phone and online consultation, were used in the analyses. In this sample, the Cronbach's α for therapists' evaluations of phone consultation was .89 and of online consultation was .96.

Results

Descriptive Analyses

Of the 107 therapists, 64 (60%) completed their consultation time frame, receiving at least 12 months of consultation, regardless of whether they attended all available consultation and/or took advantage of online consultation. *T* tests for independent samples and chi-square analyses indicated no significant differences between therapists who did or did not complete consultation on most major demographic variables or baseline EBPAS subscales. The only significant difference between the groups was percentage of full-time therapists; the completers' group had 85% full-time therapists, while the noncompleters' group had 63% full-time therapists, $\chi^2 = 5.04$, $p < .05$.

The average length of consultation was 12.22 months, $SD = 3.82$, range 0–29 months. All therapists received a minimum of 6 months of phone consultation. However, many therapists received additional phone consultation due to delays in online consultation equipment installation (e.g., installation scheduling, technical troubleshooting) or therapists' requests to continue the consultation. Therefore, the 12-month consultation period was extended for 66% of therapists, with total phone consultation ranging from 0 to 23 months, $M = 7.23$, $SD = 4.11$. If it was not possible to install online consultation equipment at an agency, therapists were offered at least 12 months of phone consultation. Online consultation lasted exactly 6 months for all therapists; this schedule was tightly controlled due to the limited online equipment available. The remaining analyses involve only therapists who completed 12 months or more of consultation (average 14.10 months; $SD = 2.86$; range 12–29 months).

Therapists' demographics significantly correlated with several consultation variables (see Table 2). Therapist age was negatively correlated with online consultation evaluations ($r = -.51$; $p < .01$). Older therapists were less likely than younger therapists to rate online consultation favorably. The number of cases therapists enrolled in the parent study positively correlated with the percentage of online consultation sessions ($r = .27$, $p < .05$) and percentage of phone consultation attended ($r = .27$, $p < .05$). Therapists who saw more clients were more likely to attend both types of consultation. Also, the number of cases therapists enrolled was positively associated with phone consultation evaluations ($r = .38$, $p < .05$). That is, therapists with more enrolled clients rated phone consultation more favorably than therapists with fewer cases. The percentage of online consultation attendance was positively associated with the percentage of phone consultation attendance ($r = .29$, $p < .05$). Therapists who had more online consultation also attended more phone consultation. In addition, the percentage of online consultation attendance positively correlated with online consultation evaluations ($r = .36$, $p < .05$). Those therapists who attended more of their online consultation sessions were more likely to rate online consultation positively.

Table 2. Correlations Among Therapists' Age, Experience, Enrolled Cases, and Consultation

	Therapist Age	Years of Clinical Experience	Number of Cases Enrolled	% Attended (Phone)	% Attended (Online)	Evaluation (Phone)	Evaluation (Online)
Therapist age	—						
Years of clinical experience	.49***	—					
Number of cases enrolled	−.05	−.11	—				
% attended (Phone)	−.03	−.02	.27*	—			
% attended (Online)	−.09	−.17	.27*	.29*	—		
Evaluation (Phone)	.01	−.04	.38*	.14	−.25	—	
Evaluation (Online)	−.51**	−.26	−.02	.32	.36*	.06	—

Note. Phone = phone consultation; Online = online consultation.
*$p < .05$. **$p < .01$. ***$p < .001$ (one-tailed tests).

Table 3. Therapists' Attitudes Associations With Enrolling Cases, Years of Clinical Experience, Consultation Attendance, and Evaluation of Consultations

EBPAS Subscales	Number of Cases Enrolled[a]	Years of Clinical Experience[a]	% Attended (Phone)[a]	% Attended (Online)[a]	Evaluation (Phone)[a]	Evaluation (Online)[a]	Preference (Phone or Online)[b]
Requirements	.03	.22	−.12	.11	.24	−.06	.00
Appeal	.08	−.18	−.02	−.10	.36*	.17	−.11
Openness	.19	−.01	.13	.24*	.01	.12	.01
Divergence	.06	.12	−.23*	−.04	−.32*	−.18	.12

Note. EBPAS = evidence-based practice attitude scale; Phone = phone consultation; Online = online consultation.
[a]Pearson Product–Moment correlation coefficient.
[b]Spearman ρ correlation coefficient.
*$p < .05$ (one-tailed tests).

Therapists' Attitudes and PCIT Consultation

To examine the hypothesized associations among therapists' attitudes, number of enrolled cases, and participation in and evaluations of consultation, Pearson product-moment and Spearman's ρ correlation coefficients were analyzed (see Table 3). Therapists' positive attitudes toward EBPs were expected to show a negative relation to their years of clinical experience. No significant associations were found for the EBPAS subscales and therapists' years of clinical experience, although, as noted above, therapist age (as opposed to experience) was negatively associated with ratings of online consultation. Also, it was hypothesized that therapists who reported more favorable attitudes toward EBPs would enroll more PCIT cases during consultation than therapists who reported less favorable attitudes. No significant correlations were found for the EBPAS subscales and number of cases enrolled.

Regarding therapists' participation in consultations, it was predicted that therapists who reported more favorable attitudes would participate in more consultation activities compared to those with less favorable attitudes. The EBPAS Divergence subscale was negatively associated with the percentage of phone consultation attended ($r = -.23$, $p < .05$). Therapists who reported a greater likelihood of diverging from EBPs were less likely to attend phone consultations. In addition, the EBPAS Openness subscale was positively correlated with the percentage of online consultation attendance ($r = .24$, $p < .05$). That is, therapists who were more open to EBPs were more likely to attend online consultation sessions.

It was expected that therapists who expressed less favorable attitudes toward EBPs would also report less satisfaction with consultation. Therapists' evaluations of phone consultation positively correlated with the EBPAS Appeal subscale ($r = .36$, $p < .05$) and negatively correlated with the Divergence subscale ($r = -.32$, $p < .05$). Therapists who found EBPs more appealing and those who were less likely to diverge from EBPs were more likely to rate phone consultation positively. No significant correlations were found for online consultation evaluations. None of the EBPAS subscales significantly correlated with therapists' preference for phone or online consultation.

Discussion

Because many children and families are impacted by child abuse and neglect, it is imperative to establish EBPs in community-based agencies where these families are frequently served. PCIT is a parenting intervention and EBP that has demonstrated effectiveness with families at-risk of or exposed to child maltreatment (Chaffin et al., 2004). This study examined the relationship between community-based therapists' attitudes toward EBPs and their level of participation in PCIT

consultation as part of a larger PCIT implementation study. As described by Fixsen, Naoom, Blase, Friedman, and Wallace (2005), EBP implementation involves several components. This study aimed to examine two components, namely selection and consultation/coaching.

Staff selection is the first component in implementing an EBP like PCIT. Understanding how therapist characteristics and attitudes toward EBPs impact their utilization of consultation can inform future implementation endeavors. It was hypothesized that therapists who reported more favorable attitudes toward EBPs at training would have less clinical experience but would enroll more PCIT cases, show better participation in consultation, and report greater satisfaction with consultation.

The absence of an association between years of experience and attitude toward EBP was unexpected, given previous studies that found years in clinical practice to be inversely related to adopting EBPs (Stahmer & Aarons, 2009) and related to limited skill improvements following training (Beidas & Kendall, 2010). The hypothesis received some support in that older therapists (as opposed to more experienced therapists) were less favorable toward online consultation than younger therapists. It may be that younger therapists are more willing to engage in a technology-based consultation format due to their greater comfort with technology in general, while older therapists might be more comfortable with telephone consultation.

It was expected that therapists with more positive attitudes toward EBPs would enroll more PCIT cases, but this hypothesis was not supported in this study. Several factors may account for this outcome. Some therapists anecdotally reported challenges in establishing an appropriate referral base at their agency. Others had limited say in which clients they enrolled or had very limited schedules (e.g., one slot per week) in which to see PCIT cases. As a result, many therapists with positive attitudes toward EBPs were unable to enroll appropriate clients, limiting their potential for optimal involvement in consultation.

In addition, the number of cases therapists enrolled was positively related to therapists' attendance and evaluations of phone consultation. That is, therapists with more cases enrolled were more likely to attend phone consultation and evaluate this consultation more favorably. This may be interpreted as a ''compliance'' factor as both client enrollment and consultation attendance were clear expectations set out by PCIT trainers. It could also be interpreted as an ''opportunity'' effect in that therapists with a higher case load had more cases to present in consultation. Although therapists were encouraged to attend phone consultation regardless of whether they had seen PCIT cases that week, therapists with active PCIT cases may have been more motivated to seek out consultation. Those who had cases to discuss may have enjoyed the consultation sessions more, or found the consultation more helpful, than therapists who merely heard about other clinicians' cases. Finally, therapists who attended more phone consultation also attended more online consultation, suggesting a therapist factor for consultation attendance that superseded type of consultation. Overall, these results suggest that training efforts may need to focus less on fostering a positive attitude toward EBPs and rather address systematic barriers to client enrollment if implementation is to be successful. Indeed, as Fixsen et al. (2005) stressed, ''Without hospitable leadership and organizational structures, core implementation components cannot be installed and maintained'' (p. 58).

Several associations were found among therapists' attitudes and involvement in consultation. Therapist attitudes consistent with diverging from EBP protocol were associated with poorer attendance of phone consultation. Therapists who placed less value on treatment fidelity may have felt able to implement the EBP without the assistance of consultants. Therapists who rated EBPs as more interesting and engaging tended to view phone consultation as more important and beneficial to PCIT implementation. Because PCIT is a fairly technical treatment to administer even relative to other EBPs (e.g., involving coaching through a one-way mirror, use of a behavioral coding system, etc.), it may be that therapists who are favorable toward this service delivery approach are also more favorable toward consultation and fidelity. Enrolling families and having positive attitudes toward EBPs are each associated with better use of phone consultation, suggesting multiple avenues for increasing participation in this valuable implementation activity.

Therapists' attitudes and participation in online consultation revealed different associations than the patterns seen for phone consultation. Open attitudes to EBPs were positively associated with online, but not phone, consultation attendance. In this sample, therapists who expressed greater willingness to try a new EBP were more likely to try online consultation. Some therapists anecdotally reported initial concerns regarding online consultation, particularly with being ''on the spot'' and possibly being judged negatively. However, the number of online consultation sessions attended was positively associated with therapists' satisfaction with this form of consultation, suggesting that the more therapists engaged in online consultation, the more satisfied they were with the consultation. In previous work with this method of consultation, trainees reported that phone consultation was more comfortable for them, although online consultation was more helpful for developing technical skills (Funderburk, Ware, Altshuler, & Chaffin, 2008). In that small sample, 100% of trainees who received both phone and online consultation indicated that if they could only choose one form of consultation, it would be online (Funderburk et al., 2008). These results support the feasibility of online consultation, but suggest that therapists may need support to overcome their reluctance to participate in online consultation, particularly if they have less open attitudes toward EBPs.

Implications for Implementation Efforts

Trying a new EBP is one aspect of implementation, but how to support that EBP to the point of sustainability is also important. It has been shown that therapists are more likely to implement a treatment congruent with their current beliefs and practices and relatively easy to conduct (Henggeler et al., 2002; Riemer et al., 2005). It may be that a mode of consultation that is a

"comfortable fit" for the therapist is important during the selection phase of implementation to promote optimal consultation. Given the importance of in vivo training in the implementation of skills-based treatments like PCIT and other EBPs, efforts to increase trainees' initial comfort with videoconferencing type consultation appears warranted. This type of consultation appears to be more engaging among younger providers, so addressing factors that impact the appeal with older therapists may increase their participation.

Limitations

This study is both strengthened and hampered by its focus on the "real-world" implementation of EBP. Because few psychometrically sound measures are available in this area of research and therapists had limited time to complete measures, only one self-report measure of therapists' attitudes toward EBPs was examined. This limits our understanding of other factors that may play a role in therapists' PCIT implementation. Also, the findings of this study are based on multiple correlations without correction, so some correlations may have occurred by chance. Future studies utilizing more robust analyses are necessary to further our understanding of the impact of therapist factors on implementation. In addition, implementation was assessed by the number of families enrolled in treatment, which is a broadscale measure of treatment implementation at best. Therapist skills and treatment knowledge would provide another means for determining implementation. Although Herschell et al. (2009) found no association between theoretical orientation and knowledge and skills following training, the relationship between therapist attitudes toward EBPs and their skills and knowledge remains unclear.

Significantly, this study included only therapists who completed consultation, so these results do not inform trainers about therapists who discontinue consultation prematurely. Therapists failed to complete the PCIT consultation for multiple reasons (e.g., left agency, changed positions, no longer interested in providing PCIT), not all of which were related to the treatment itself, and this attrition is interpreted as a consequence of conducting a "real-world" investigation. Staff turnover in community agencies that provide mental health services is a well-known problem that has significant implications for training in EBPs which require substantial investments of time and resources in training and in maintaining fidelity.

Understanding the causes of dropout may inform trainers how to enhance therapists' attitudes and engagement in implementing EBPs from the point of initial training. Furthermore, having an active caseload and participating in consultation, factors related to successful implementation, are not solely dependent on therapists' attitudes. Their ability to establish a PCIT caseload sufficient for maximal benefit from consultation may be hampered by organizational factors such as referral sources, support of trainees (e.g., time granted for consultation, provision of adequate clinical space, etc), inadequate technical support, and agency productivity requirements of the therapists. These factors were not assessed in the current study but are important to consider in evaluating the preparedness of an agency to adopt EBPs. This is a robust area for future research (Herschell et al., 2004).

Conclusion

While PCIT is a highly desired intervention for child maltreatment, disseminating PCIT into community-based agencies where services are most often delivered is challenging. Research evaluating training and implementation efforts is important to ensure that families at risk of child maltreatment receive the highest quality services delivered with the greatest possible fidelity. Further research is needed to examine more specifically how therapist variables, such as attitudes toward EBPs, impact effective implementation and downstream treatment outcomes. Comparing therapists who complete training and consultation to those who do not may provide further insight into factors that impact implementation. Agency and systemic factors should also be considered in how they influence therapists' attitudes and practice and, ultimately EBP uptake. Enhancing therapists' attitudes toward EBPs may be a critical step in establishing and maintaining EBPs in more community-based agencies and providing effective services to children who have experienced maltreatment.

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