

## ***Improving Parent-Child Relationships Through the Use of Video Technology***

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### **Abstract**

Parent-Child Interaction Therapy (PCIT) is an evidence-based treatment for child behavior problems. However, families living in rural areas may have limited access to this treatment. The present study outlines a collaboration between a university-based PCIT research group and community agencies providing services to parents to explore the use of a video to educate parents about labeled praise, a fundamental concept taught in PCIT. We developed a training video, conducted focus groups with young mothers, and evaluated the use of praise before and after viewing the video by a small group of parents seeking treatment at a rural mental health practice. Focus group participants found the video helpful and intended to increase their use of praise, and participants at the mental health practice significantly increased their use of labeled praise after viewing the video. Challenges faced during this collaboration offer lessons for other researchers seeking to build similar partnerships.

*Keywords:* Parent-Child Interaction Therapy, praise, community partnership

### **Parent Training for Child Behavior**

Parents frequently seek mental health services for their children because of concerns related to child behavior (*Kazdin, Siegel, & Bass, 1990; Shanley, Reid, & Evans, 2008*). Although parent training programs constitute an evidence-based family of interventions with demonstrated effectiveness in the treatment of child behavior problems (*Thomas, Abell, Webb, Avdagic, & Zimmer-Gembeck, 2017*), individuals living in rural areas may lack access to evidence-based mental health services (*Jameson & Blank, 2007*). In such situations, many children and parents in need of intervention are left to either forgo services entirely or resort to treatments that have little evidence for their effectiveness. This article presents the work of a university–community partnership in developing a parent education module designed to provide information about one of the key techniques used in parent training. We also present preliminary data from the pilot testing of this video-based module, which was conducted in an underserved community in

the Southeastern United States. It is our hope that a self-directed parent-training program could be used by families in underserved areas to address child behavior problems.

Research suggests that self-directed parent training programs can have positive outcomes for parents and children (Cotter, Bacallao, Smokowski, & Robertson, 2013; Irvine, Gelatt, Hammond, & Seeley, 2015; Kacir & Gordon, 1999; Sanders, Baker, & Turner, 2012; Stalker, Rose, Bacallao, & Smokowski, 2018). As more individuals have increasing contact with the Internet and with video-based instruction opportunities, delivery of parent training via video instruction becomes increasingly feasible, either as a self-directed program or as an enhancement of standard clinical practice. Given the strong empirical support for Parent-Child Interaction Therapy (PCIT) (Eyberg & Funderburk, 2011) as an intervention for child behavior problems (Thomas et al., 2017), we developed and evaluated a video training module focused on the use of praise, one of the key skills taught through PCIT.

## **Parent–Child Interaction Therapy (PCIT)**

PCIT is a behavioral intervention designed by Dr. Sheila Eyberg to help parents of young children (typically between ages 3 and 6) learn to better manage their child's behavior and to interact with their child in more adaptive ways (McNeil & Hembree-Kigin, 2010). By engaging in parent–child interactions structured around play, parents are able to practice specific skills intended to aid them in improving their relationship with their child and developing more effective discipline techniques. So as not to unduly influence the interaction, a PCIT therapist typically observes these parent–child interactions through a one-way mirror and uses an earpiece to provide live coaching to the parent during each session (McNeil & Hembree-Kigin, 2010).

Treatment using PCIT consists of two phases: Child-Directed Interaction (CDI) and Parent-Directed Interaction (PDI) (McNeil & Hembree-Kigin, 2010). During CDI parents are encouraged to develop stronger relationships with their children by providing them with positive attention. The next phase of treatment, PDI, teaches parents discipline strategies such as providing effective directions to children, praising children for compliance following a command, and implementing time-out for noncompliance to parental instructions (McNeil & Hembree-Kigin, 2010). Praise, especially labeled praise in which parents praise children for a specific behavior they engaged in or a specific product they produced (Eyberg, Nelson, Ginn, Bhuiyan,

& Boggs, 2014), is particularly important to treatment outcome in PCIT as it is emphasized heavily during both the CDI and PDI phases of treatment. Generalization of praise into daily interactions is also an important mechanism of change for parent-child dyads through use of the skill during homework practice and generalization practice in the home (Borrego & Burrell, 2010).

Although PCIT was initially developed for children with conduct problems, research also suggests that PCIT can be adapted for use with young children with internalizing problems such as depression, separation anxiety, and selective mutism (Carpenter, Puliafico, Kurtz, Pincus, & Comer, 2014). Additional populations that may benefit from PCIT include children with autism spectrum disorder (Masse, McNeil, Wagner, & Quetsch, 2017; Zlomke, Jeter, & Murphy, 2017) and families at risk for child maltreatment (Thomas & Zimmer-Gembeck, 2011). Because PCIT has repeatedly demonstrated applicability to a wide range of clinical concerns, presenting some of the basic PCIT content in a video-based format that parents can access at low cost and on their own time could have wide appeal and prove to be useful for families in need of services.

## Technology and PCIT

Although other parent-training programs incorporate technology, such as instructional videos and Internet-based training (Cotter et al., 2013; Kacir & Gordon, 1999; Quinn, Carr, Carroll, & O'Sullivan, 2006, 2007; Sanders et al., 2012; Sharry, Guerin, Griffin, & Drumm, 2005; Stalker et al., 2018), the possible benefits of integrating PCIT with similar technological adaptations remain largely unexplored. To date, the most rigorous research on the remote provision of PCIT has focused on therapist supervision and training. Borrego and Burrell (2010) produced an article that provides an overview of PCIT with brief videos illustrating key concepts integrated into the PDF version of the publication. Additionally, Wilsie and Brestan-Knight (2012) discussed the use of the Video Analysis Tool, a Health Insurance Portability and Accountability Act (HIPAA) compliant, web-based platform, to provide feedback to therapists undergoing training in the delivery of PCIT on specific sections of the videos uploaded by the trainees. Finally, Funderburk and colleagues (Funderburk et al., 2015; Funderburk, Ware, Altshuler, & Chaffin, 2008) evaluated the use of telemedicine technology to provide live coaching to trainee PCIT therapists during sessions with clients.

Although a small body of work has explored technology as a resource for training PCIT therapists, very little research has

examined technological innovations in the delivery of PCIT services. Jent, Weinstein, Simpson, Gisbert, and Simmons (2014) created Pocket PCIT, an e-book designed to supplement PCIT with relevant information presented via text and video, as well as an interactive labeled praise generator; however, no published research exists evaluating the possible benefits of this tool. In one early study examining the use of video technology in PCIT, Nixon, Sweeney, Erickson, and Touyz (2003) compared traditional PCIT with a shortened format that included five in-person sessions, five telephone consultations, and video training for the CDI Teach and PDI Teach sessions in place of the in-person instruction that is typically used to introduce each phase of treatment. In their study, 17 families with children ages 3 to 5 with behavior problems completed traditional PCIT, and 20 families completed the modified version with video-based training. Interestingly, significant reductions in child problem behavior were observed among both treatment conditions (Nixon et al., 2003). Although the work of Nixon et al. demonstrates the potential utility of video-based training for PCIT, additional research is needed to further evaluate the possible benefits that video training modules and other technological innovations offer to the traditional format of PCIT service delivery. As one example of such an intervention, Comer et al. (Comer et al., 2015; Comer et al., 2017) have developed an online version of PCIT that aims to increase the accessibility of this treatment by allowing families to receive services at home via videoconferencing with a therapist.

## **Video Technology and Other Parenting Interventions**

Whereas few studies have examined the use of technology in PCIT, several other parenting interventions integrating technology, especially video technology, have been documented. One example, the Parenting Wisely program developed by Gordon (2000), consists of a series of video modules depicting various parenting scenarios. Parents may view the modules, consider how they would respond to the situation presented, and view additional videos demonstrating the outcomes of several possible responses. Although the program was originally disseminated in CD-ROM format (Gordon, 2000), it later moved to an online platform, and research indicates that both formats are associated with parent-reported reductions in children externalizing behavior problems (Cotter et al., 2013; Kacir & Gordon, 1999; Stalker et al., 2018).

As an additional example of the use of video technology in parent training, Sharry et al. (2005) evaluated the Parents Plus Early Years Program, an intervention for parents of children with behavior problems. This program uses both individual sessions in which a therapist reviews recorded video of a parent interacting with his or her child and offers feedback, and group sessions in which videos are used to present information about parenting skills such as communication, praising and ignoring child behavior when appropriate, providing support to children, and parental assertiveness. The intervention typically occurs over the course of 12 weeks and includes five individual sessions and seven group sessions. Sharry et al. (2005) studied the treatment progress of 24 families enrolled in the Parents Plus Early Years Program. In a manner similar to that employed in PCIT (Eyberg & Funderburk, 2011), treatment progress was tracked using a combination of parent-report measures and behavioral observations. Following the intervention, families exhibited decreases in parental stress, child hyperactivity, and conduct problems, as well as increases in the amount of positive attention children received from parents.

Research has also explored the Parents Plus Program as an intervention for parents of older children with behavior problems (Quinn et al., 2007). This format of the program is designed for children from 4 to 11 years of age and consists of eight weekly 2-hour sessions in which videos are used to teach parenting skills such as the use of reinforcement, praise, and time-out. Quinn et al. (2007) examined outcomes associated with participation in the Parents Plus Program for children with developmental disabilities and behavior problems. Of 42 parents of children ages 4 to 7 who participated, 23 were assigned to treatment using the Parents Plus Program, and 19 were assigned to a control condition. Families who participated in the Parents Plus Program demonstrated a significant decrease in child behavior problems and a significant increase in parenting satisfaction. Notably, unlike PCIT and the earlier study of the Parents Plus Program by Sharry et al. (2005), Quinn et al. (2007) relied solely on parent-report measures to evaluate the program and did not include behavioral observations.

The Triple P: Positive Parenting Program, a multilevel intervention created to disseminate effective parenting techniques (Sanders, 2012), has also implemented video-based parent training as one strategy for improving parenting practices (Baumel & Faber, 2017). Triple P Online (TPOL) consists of eight video modules reviewing parenting topics such as strategies for managing child behavior in public, promoting appropriate behavior, and consequences for

inappropriate behavior (Baumel & Faber, 2017). Sanders et al. (2012) reported an association between completion of the TPOL program and significant parent-reported decreases in child behavior problems. In addition to the standard version of the TPOL program, a brief version and a specialized version for children with disabilities have been developed and linked with positive outcomes (Baker, Sanders, Turner, & Morawska, 2017; Hinton, Sheffield, Sanders, & Sofronoff, 2017).

Notably, despite clear evidence supporting the benefits of video-based parent training, little research to date has explored the possibility of integrating a video-based training approach and PCIT, with the exception of work by Nixon et al. (2003). Although intensive in-person coaching is a key feature of PCIT (Eyberg & Funderburk, 2011), video modules could be used to supplement the skills learned during live sessions or to encourage the development of basic parenting skills among individuals in need of less intensive services or who are unable to easily access PCIT (Nixon et al., 2003). Potential advantages of such modules include ease of access via the Internet or a DVD mailed to a parent, as well as the ability of parents to view and review video content at their own pace to facilitate learning.

## **The Present Study**

Overall, research examining the integration of video technology with parent training interventions suggests that similar technology may serve as a useful tool for the dissemination of the parenting skills taught in PCIT. The purpose of this article is to describe the development of Meet the Praises, a video-based training module designed to provide caregivers with information about how to provide appropriate praise for child behavior. The project was conducted in three phases. During Phase 1, the video was developed and recorded by a research team at a land-grant university in the Southeastern United States. During Phase 2, researchers conducted focus groups in order to gain feedback on the use of the video with two prevention populations. Finally, Phase 3 involved conducting a small pilot study to evaluate the feasibility of using the video-based training module with parents of children with mild disruptive behavior. Phase 3 included a collaboration between a university research team and a rural community-based clinic where families sought mental health services. For the pilot study, it was hypothesized that parents who viewed the brief video training module at the mental health clinic would demonstrate increased use of labeled praise and report significantly increased

knowledge about the use of praise. Researchers also hypothesized that parents would rate children as having significantly decreased scores on a parent-rating scale of child problem behavior. Finally, the study team predicted that parents would report improved child behavior following the brief intervention as a result of an increased use of praise as reinforcement for appropriate behavior.

## Method

### Phase I: Meet the Praises Video Training Module

Two clinical child psychology faculty members at a Southeastern university formed a working group to explore the feasibility of creating a video-based parent training module that could be used to provide parenting information for at-risk families in the rural Southeast. Grant funding was obtained from the University Outreach Office to assist in the development of the training module. Over the course of a summer semester, the team developed a research design, created a script focused on using praise to increase prosocial child behavior, and found amateur actors (e.g., graduate students, faculty members, local children) to participate in the video. Prior to recording, the team consulted with the Department of Communications IT department and received a tutorial on how to best record video and audio using cameras and microphones on loan from the Department of Communications.

The resultant 22-minute video includes a storyline in which two graduate student “reporters” investigate a story about labeled praise. These reporters interview actual parents from the local area and a clinical psychologist with expertise in parenting. The video also includes clips from a mock therapy session with two young parents and concludes with some lighthearted demonstrations on how to best use labeled praise. All individuals interviewed on video were provided a description of the project and provided a written consent for their likeness to be used in the final product.

To facilitate learning of the material during the video, several short segments interspersed throughout the video present viewers with review questions about the video content. Specifically, the video encourages viewers to use labeled praise in which a child’s specific behavior is praised (e.g., “Great job listening to my instruction so quickly!”), as opposed to more general unlabeled praise in which a child is praised, but it may be unclear what behavior elicited the praise (e.g., “Good for you!”; *Eyberg et al., 2014*).

## Phase 2: Focus Groups

The developers of the video-based module then conducted two focus groups to obtain more information about the helpfulness of the video. One focus group was conducted at a residential facility for teenage mothers in the rural Southeast. The women at this facility were all high school students and were mothers of a young infant or toddler. The families were living in the transitional facility to receive emotional support, mentoring, and financial support. The second focus group was conducted at a free women's pregnancy medical clinic in a mid-sized Southeastern city. Women in the second focus group were ages 18 to 25 and were mothers of young infants or toddlers. Members of both focus groups volunteered to attend the group.

Each focus group was conducted in a small group setting, all members agreed to group rules, and the authors provided lunch and a free screening of a DVD version of the video. Based on the positive feedback from both groups of young mothers, the authors then conducted a pilot study using the video to evaluate the effectiveness of the training module in a clinical setting. Specifically, the pilot study was designed to evaluate whether caregivers would increase their use of labeled praise with their own children after watching the video.

## Phase 3: Pilot Study

**Participants.** Participants of the Phase 3 pilot study consisted of five primary caregivers (4 females, 1 male,  $M_{\text{Age}} = 38$  years) of a child age 2 to 10 years who presented with mild disruptive behavior (1 female, 4 males,  $M_{\text{Age}} = 5.32$  years). Caregivers were recruited from among families referred for treatment at a rural community-based mental health clinic in the Southeastern United States. The clinic specialized in providing care for families at risk for child maltreatment. Four caregivers were biologically related to the target child, and all five caregivers were the sole caregiver of the target child.

**Measures.** Several measures that are typically used in clinical research involving PCIT were used to evaluate the pilot study. These measures are described below.

***Dyadic Parent-Child Interaction Coding System (DPICS).*** The DPICS is a standardized behavioral coding system designed for use with live observation of parent-child interactions during play in a controlled setting (Eyberg, Nelson, Duke, & Boggs, 2010; Eyberg *et al.*, 2014). A DPICS observation includes three 5-minute segments:



Child Led Play (CLP), Parent Led Play (PLP), and Clean Up (CU); however, only the codes from CLP were used for the current study. During CLP, parents are instructed, "In this situation, tell [child's name] that he/she may play with whatever he/she chooses. Let him/her choose any activity he/she wishes. You just follow his/her lead and play along with him/her." Trained coders record the frequency with which various types of parent and child verbalizations occur during each of these segments. Average interrater reliability for the coded CLP segments was 90.3%. The present study was primarily concerned with parent use of labeled praise as measured using the DPICS. The DPICS-III (Eyberg *et al.*, 2010) was used for the present study, as the more recent DPICS-IV (Eyberg *et al.*, 2014) had not yet been released. It should be noted that few differences exist between the two editions.

***Eyberg Child Behavior Inventory*** (ECBI). The ECBI is a 36-item parent-report measure of child behavior problems (Eyberg & Pincus, 1999). Each item consists of a problem behavior (e.g., "Does not obey house rules on own"; "Sasses adults"; "Interrupts"). Parents identify how often their child engages in a particular behavior using a Likert scale ranging from 1 = *Never* to 7 = *Always*. Additionally, for each item parents also indicate whether that behavior is a problem for them by circling either "YES" or "NO." A total Intensity score is computed by summing the frequency ratings for each item, and the items identified as problems are summed to compute a total Problem score.

***Labeled Praise Knowledge Quiz***. The Labeled Praise Knowledge Quiz is a 21-item measure developed for the present study. It consists of three subquizzes: Labeled vs. Unlabeled Praise (8 items; e.g., "The purpose of using praise with a child is to:"), What to Praise and When to Praise (8 items; e.g., "When should you praise your child for appropriate behavior?"), and Enjoyment and Variety of Praise Statements (5 items; e.g., "True or false: Being genuine is not important when providing praise"). Participants respond to each item using a multiple choice format, and the items answered correctly are summed to compute a total score.

***Procedure***. Institutional Review Board (IRB) approval was obtained for all phases of the study involving human participants. After providing informed consent, participants in the pilot study completed three individual sessions consisting of an assessment and two intervention sessions occurring one week apart. During the first session, caregivers completed a variety of measures, including a demographic questionnaire, a pretraining DPICS observation with the child, a parent-report measure of child disruptive behavior, and

a parent-report measure of labeled praise knowledge. The second session involved the caregivers coming to the clinic without their child in order to view the Meet the Praises video training module and complete quizzes related to the caregivers' understanding of the material presented in the video. Finally, the caregivers returned for a final session during which they completed a posttraining DPICS observation with the child and the aforementioned parent-report measures. Upon completion of the study, caregivers received \$50 as compensation for their time. Measures collected during each session were then anonymized and sent to the university-based research team for scoring. Pre- and posttraining DPICS observations were also sent to the research team and coded by experienced DPICS coders, who were blind to study hypotheses.

## Results

### Phase 2: Focus Group Results

Three common themes emerged from the focus groups conducted with the young mothers: (1) The video was very helpful in the development of their parenting skills and the way they conceptualize good parenting, (2) they hoped to use more praise for the positive behavior of their own children in the near future, and (3) they would have liked to have been praised more when they were children. Notably, the teenage mothers from Focus Group 1 reported a very positive reaction to the video, with one young woman commenting that if she had received more praise from her parents when she was younger, she "might not be here" at the residential facility.

### Phase 3: Pilot Study Results

The research team conducted a series of paired samples *t*-tests in order to evaluate differences in the use of labeled praise during CLP, levels of child problem behavior, and caregiver knowledge of labeled praise before and after participants viewed the Meet the Praises video training module. Participants used significantly more labeled praise during the CLP portion of the posttraining DPICS observation ( $M = 2.40, SD = 2.70$ ) than they did during the pretraining DPICS observation ( $M = 1.4, SD = 2.61$ ),  $t(4) = 3.16, p = .034$ . Additionally, participants demonstrated significantly higher scores on the Labeled Praise Knowledge Quiz at posttraining ( $M = 93.04, SD = .07$ ) than at pretraining ( $M = 84.35, SD = .07$ ),  $t(4) = 2.89, p = .045$ . However, ECBI scores for the target children did not

significantly differ between pretraining ( $M = 60.40$ ,  $SD = 9.34$ ) and posttraining ( $M = 63.5$ ,  $SD = 29.49$ ),  $t(4) = .29$ ,  $p = 1.22$ .

## Discussion

This video-based training project was a true collaboration between several departments within a land-grant university (e.g., the Outreach Office, Department of Psychology, and Department of Communication). Additionally, several groups were impacted by the project throughout the development and implementation phases. For example, students and professors learned more about the process of creating video-based content for caregivers, which is a skill that is not typically emphasized in a graduate curriculum for psychology. Local families from the community were featured in the video and helped to provide their view on the meaning of labeled praise for a university-funded project. Finally, young mothers from two regions within a Southeastern state were able to give their feedback on the video and determine whether it might be a useful prevention tool for other mothers. Taken together, the groups involved in the development of the Meet the Praises video typically do not interact in traditional clinical research studies that are more commonly conducted in the field of clinical child psychology.

Historically, one criticism of clinical psychology has been that researchers develop treatments within the academic setting and then do little to disseminate this information or provide instruction to therapists working in the field on how to best provide these treatments in a real-world setting (Connor-Smith & Weisz, 2003). This project, however, attempted to bridge the gap from research to practice, bringing information from a well-researched, empirically based treatment to a community-based clinic serving at-risk families. Specifically, a therapist working at a community-based clinic in a neighboring state and families presenting for treatment at the community-based clinic were included in the final phase of the project.

The development of the Meet the Praises video training module, as well as the second and third phases of this project, provided a number of lessons learned. First, the research team gained more appreciation for the amount of time and effort necessary to create video-based educational content. Amateur actors were difficult to locate, and one of the key actors for the video dropped out of the project prior to the planned recording, resulting in a last-minute addition to the roster. It took the team many trials to perfect the

sound, lighting, camera angles, and the use of teleprompters during the video recording. Finally, it also took several days to record the video content that was eventually edited into a video lasting just over 20 minutes. The research team projected that the video project would take one semester to complete. Although the video portion of the project was completed in one semester, Phase 2 and Phase 3 took longer.

Despite the challenges encountered in making the video, the research team was very proud of the professional-looking final product, and the young mothers from the focus groups reported that the video provided them with very useful content. Indeed, conducting the focus groups was perhaps the most straightforward phase of the project. To further evaluate the use of the Meet the Praises video training module with a prevention population, such as teenage mothers or other high-risk groups, the study team recommends conducting additional focus groups with a more formal qualitative data collection method in which focus group interviews are audio recorded, transcribed, and then analyzed for common themes. The current study is limited by the lack of a formal content analysis of the two focus group conversations conducted for this project.

The authors also encountered some challenges when conducting the more traditional research aspect of the project during Phase 3. For example, the clinician at the community-based clinic had to learn the research methods, receive Collaborative IRB Training Initiative (CITI) training, and be added to the university IRB protocol as a research assistant. These were all new activities for her, as she was a full-time clinician and unaccustomed to conducting research. Additionally, because study team members collaborated with a community-based clinic and needed to obtain confidential video recordings of the parents and children from a remote location, a HIPAA-compliant shared drive connection for the clinician was created so that she could upload the videos for research team members to code remotely on campus. For this, the community collaborator had to obtain a university ID number in order to access the university server.

One challenge faced when conducting this project was identifying community partners for potential collaboration. Networking is important when conducting community-based outreach scholarship, and the authors reached out to several leads during the planning phase of this project. Community partners were selected based on recommendations from existing community partners and asking potential partners whether they might be interested in a

collaboration. The issue of providing prevention services to rural areas was identified early in the project during the grant-seeking phase. In particular, administrators at the University Outreach Office were interested in both teen parenting and prevention of mental health issues in the rural community. Because none of the authors had ongoing projects in the area of teen parenting or rural mental health, the researchers decided to both approach existing networks of collaborators and network with some new potential collaborators.

Community Partner 1 (a residential facility for teenage mothers) was identified as a potential collaborator from one author's (EBK) existing partnership with local therapists. At the time of the project, several licensed therapists were trainees completing the PCIT certification process. Some of the therapists in training were located several hours away in the northern part of the state, and they knew of the shelter for teenage mothers. Through the recommendation from existing collaborators, the researchers offered to provide lunch in addition to providing a viewing of the video as a resource for a one-time visit.

Community Partner 2 (a local free pregnancy resource center) was the one site that seemed to make intuitive sense for collaboration. The study authors contacted the center's leadership and asked whether they might be interested in having researchers conduct a focus group with the newly developed video. Researchers offered to provide lunch in addition to providing a viewing of the video as a resource for a one-time visit. Our interaction with parents through both Community Partner 1 and Community Partner 2 was mutually beneficial, as the study team learned more about the concerns of new parents, and the new parents learned about a skill offering the potential for improved child outcomes. This experience points to the likelihood that if researchers create a clinical service/tool of value, community organizations will be open to collaboration.

Community Partner 3 (a children's advocacy center and rural mental health clinic) was also identified through the PCIT training process. The clinical director at this community agency was a licensed therapist with a private practice in rural Georgia. Of all the community partners, only Partner 3 was a part of the planning process for the design of the study. This partner helped to identify the problem to be addressed using the video, she helped to plan the assessment procedure, and she executed the project in collaboration with the research team. Notably, Partner 3 was crucial in helping to identify and recruit the sample used for the evaluation of the video. At the time of the project, the therapist was hoping to

gain both more treatment evaluation experience and experience using video-based modules to help decrease costs for her clients. Researchers offered to include her on any presentation generated from the community-based project and kept in close contact with her during the dissemination and implementation phase of the video project.

The challenges encountered throughout this project are outlined to provide a framework for future research teams and to demonstrate that although community partnerships may have more “working parts,” these collaborations are both feasible and very beneficial to all members of the team. In particular, this project yielded several academic “products,” including the development of the Meet the Praises video, a research presentation at an international conference, and valuable community-based research experience for six graduate students and one undergraduate student. The community clinician partner further benefited from the collaboration: She demonstrated to the board of directors from her agency that their clinic was involved in research, she used the Meet the Praises video to supplement her clinical work with families, and she was listed as an author on one conference presentation.

In terms of the results for Phase 3 of the project, it was hypothesized that after viewing the Meet the Praises video training module, participants would demonstrate significantly higher use of labeled praise during the CLP phase of the postintervention DPICS observation. Additionally, the study team expected ECBI scores to significantly decrease and scores on the Labeled Praise Knowledge Quiz to significantly increase after participants viewed the video. These hypotheses were largely supported. Participants’ knowledge of and use of praise both showed modest but significant increases after viewing of the video training module. When considered alongside other findings exploring the use of technology in parent training interventions (*Nixon et al., 2003; Quinn et al., 2007; Sharry et al., 2005*), these results suggest that video training modules exploring praise, and possibly other aspects of PCIT, can be useful resources for teaching parents valuable skills as adjuncts to therapy or as standalone interventions.

The lack of significant changes in parent-reported child problem behaviors after caregivers viewed the video training module suggests that video-based education about praise alone was not sufficient to address parent reports of significant child disruptive behavior. It is likely that families need more time and practice to maintain lasting dyadic changes when a child has clinically significant behavior problems and that the video-based inter-

vention would be best suited for children with subclinical levels of parent-reported behavior problems or as a preventive intervention (e.g., for use with teenage mothers or young mothers of infants). Previous research has found that parents make the greatest changes in skill level when they receive feedback from therapists during the coaching portions of PCIT (Barnett, Niec, & Acevedo-Polakovich, 2014). Parents who learn about praise from a video alone may also need some feedback on their use of skills during skill practice at home. To that end, and in the interest of enhancing traditional PCIT with technological adaptations, our research group is currently developing a smartphone app capable of live, real-time DPICS coding to assist parents with skill acquisition during CDI. It is our hope that once completed, the app can be used with either live face-to-face therapy or video-based interventions targeting parent-child interactions.

Ultimately video-based training offers important benefits both as a broad educational tool for parents and potentially as a component of formal intervention approaches. First, as seen in the work of Nixon et al. (2003), integrating video training components with PCIT may shorten the time required for intervention without compromising outcomes, thereby increasing cost-effectiveness. Furthermore, video-based parent training may be especially beneficial in rural areas such as the one explored in Phase 3 of the present study in which parents of children with behavior problems may be concerned about facing judgment from a clinician and about confidentiality (Owens, Richerson, Murphy, Jagelewski, & Rossi, 2007). Individuals living in rural areas in particular often lack sufficient access to mental health care and may be unwilling to seek treatment due to concerns related to social stigma (Jameson & Blank, 2007). Interventions incorporating technology may be able to address disparities in accessing mental health care in rural areas, as evidenced by our successful pilot test of the Meet the Praises training in a rural mental health practice. Finally, disseminating video-based training via the Internet may increase access to parent-training resources for parents who do have access to mental health services but are unable or hesitant to consult a therapist. These parents can watch video-based content like Meet the Praises at home and implement skills with their child at a time that best suits their schedule.

## **Video Training as a Prevention Tool**

In addition to the possible application of video-based training as an intervention addressing child problem behavior after it

develops, increasing the accessibility of the skills taught as part of PCIT via video-based training may also serve as a useful strategy to prevent the development of child problem behavior. Previous research suggests that PCIT can function as a prevention intervention for both child problem behavior (*Berkovits, O'Brien, Carter, & Eyberg, 2010*) and child maltreatment (*Thomas & Zimmer-Gembeck, 2011*). Video training incorporating the principles of PCIT thus may serve as a useful resource for parents to prevent negative child outcomes. The brief format of the Meet the Praises module and the ability to disseminate video training to a large audience via the Internet would easily allow for the development of a highly accessible prevention program. Additional research is needed to evaluate the potential for the Meet the Praises module or other video training incorporating PCIT to function as prevention tools. The relative effectiveness of video-based parent training in prevention as opposed to intervention contexts should also be considered in future studies as a viable adaptation of PCIT for yet another parent-child population (*Eyberg, 2005*).

## **Best Practices for Conducting Community-Based Collaborative Research**

Conducting community-based projects can be extremely rewarding professionally due to their potential to create synergy between systems and their potential for positive outcomes. However, researchers will need to consider a number of factors when planning, designing, and implementing a project. In terms of best practices, researchers who are new to community outreach are encouraged to contact agency directors and visit the site if possible. Making an on-site visit can provide the research team with much-needed reconnaissance to determine what will be needed to adjust data collection to the physical constraints of the space (e.g., Does the site have its own computer and projector? Is there adequate seating? Is there a copier or printer available?). It is also very helpful to use the on-site visit as a way to build a relationship with your potential collaborator and determine whether the collaboration will be a good fit for all involved. Questions to ask during this meeting could include a range of topics: What types of projects are you interested in pursuing? Would your group be willing to participate in an IRB-approved research study? What data/information/knowledge would you like to gain as a result of our collaboration? What timeline would work for your group? The goal for asking these questions is to find a common ground that would be mutually beneficial to both the community partner and the uni-



versity research team. If the project takes several years to complete or changes focus, it would be ideal for the decision makers in the project to ask these questions again in order to maintain project focus and team cohesion.

During the beginning stages of a potential collaboration, it is imperative for the researcher to determine whether the community partner has enough potential participants for a research project. As an example relevant to clinical psychology, community partners may perform excellent therapeutic work but serve a relatively low volume of clients. Conducting community-based research can be very complex, given that both the project and data collection are typically conducted in the field and in collaboration with another organization. The considerable effort involved in designing and organizing a project will yield no usable results if the partner cannot provide enough participants to complete the endeavor.

For its full duration, regular communication with the community partner plays a vital role in the successful completion of a long-term outreach project. Initially, there are very frequent e-mail contacts, video conferences, or phone calls with a community partner. However, once the project is ongoing, the contact may decrease in frequency to twice a month or once a month. In order to maintain unity of focus and project momentum, it is recommended that researchers and collaborators maintain at least monthly contact. Researchers may want to conduct weekly videoconferencing or phone contact during any period that might require team problem-solving.

Finally, data collection and data management are two vital aspects of any community-based project. If project coordinators hope to one day publish or present scholarly work based on the community partnership, they will need to coordinate their research methods with the community partner. For example, it will be important to determine whether one of the community partner representatives needs to complete the IRB-required CITI training in order to collect data. It is also important to decide how these data will be delivered to the researcher (by mail, scanned and uploaded onto a secure server through the university, delivered in person, etc.). Needless to say, these methods will need to be tested and monitored throughout the project.

## **Limitations and Future Directions**

Although the results of this project are promising, as a preliminary evaluation the present study included several limitations

that should be addressed in future work. As previously mentioned, a more formal focus group component with at-risk parents would help to inform future prevention-focused evaluation of the video. Additionally, a randomized controlled trial in which participants are randomly assigned to either a video training condition or a wait list control condition would allow for a more rigorous examination of the Meet the Praises video training module. Such a study should include a much larger sample in order to increase statistical power, as well as a follow-up evaluation beyond posttraining to examine long-term benefits associated with viewing the Meet the Praises video. Future research can also further examine ways to increase access to parent training by comparing the effects of viewing the video training in a therapist's office, as in the present study, and viewing the video in one's home using the Internet. Once the effects of the video training module as a stand-alone intervention are understood, future investigations should then build on the work of Nixon et al. (2003) by continuing to explore ways to effectively integrate video training with the traditional format of PCIT service delivery. Furthermore, although the present study is an evaluation of video training for only one skill (labeled praise), it does provide the first step of a components analysis targeting the impact of providing training in labeled praise alone.

## **Conclusions**

Based on previous literature and the present study, video-based parent training is feasible and potentially able to increase both caregiver knowledge and use of labeled praise. In light of these promising results, this small pilot study may be used to encourage further community–university partnerships as well as continued development of PCIT-based modules (e.g., a video module on reflections, a module on behavior descriptions, etc.) that can be used for parents of children with subclinical-range problems. The use of video-based training has great promise for the dissemination of PCIT to underserved areas as well as for preventive intervention. Continued collaboration between university-based researchers, community-based clinicians, and families in need of services will be necessary to support future work in this area.

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