

The development and evaluation of a natural helpers' training program to increase the engagement of urban, Latina/o families in parent-child interaction therapy



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ABSTRACT

Latina/o immigrant children are at increased risk for developing conduct disorders, and are simultaneously less likely to access services. Natural helpers are uniquely positioned to promote effective parent training programs to address service disparities in these communities. This study describes one effort to train natural helpers to increase engagement in parent-child interaction therapy (PCIT), an evidence-based parent training program. An academic-community partnership prompted the development and evaluation of this natural helpers training program. Five natural helpers were trained to recruit Latina/o families into PCIT, address barriers to treatment, and support parents' skill development. Over the course of training, natural helpers increased their knowledge of PCIT and their ability to use and model treatment targeted parenting skills. Additional consultation was necessary to improve the natural helpers' abilities to conduct behavioral observations of parent skill use and provide feedback on these skills. Natural helpers expressed overall satisfaction with PCIT and the training program. Suggestions for incorporating natural helpers into PCIT services are discussed based on the strengths and challenges identified from the evaluation of this training program.

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1. Introduction

Urban children from ethnic minority backgrounds have heightened risk for developing conduct problems, as they are more likely to be exposed to community violence, live in poverty, and experience high levels of psychosocial stress in their families (Gershoff, Aber, Raver, & Lennon, 2007; Lanza, Rhodes, Nix, & Greenberg, 2010). Simultaneously, they are less likely to access mental health services (Coker et al., 2009; Garland et al., 2005). Latina/o immigrant children are especially vulnerable to having untreated conduct disorders as mental health service utilization is lower than amongst U.S. born Latina/os (Chang, Natsuaki, & Chen, 2013). Logistical barriers, stigma surrounding mental health services, and a lack of culturally sensitive interventions all negatively impact service engagement (McKay & Bannon, 2004).

Abundant empirical evidence supports the efficacy of parent training for treating conduct problems in young children (Eyberg, Nelson, & Boggs, 2008), but these interventions are not reaching the majority of

families that need them (Kazdin, 2008). When parenting programs are accessed by ethnic minority families, they may not be evidence-based (Morawska et al., 2012). This is concerning because standard community services are not as effective at improving parenting skills and child behaviors (McCabe & Yeh, 2009) or decreasing child maltreatment (Chaffin et al., 2004) as evidence-based parent training programs such as Parent-Child Interaction Therapy (PCIT; Eyberg & Funderburk, 2011).

Innovative approaches are necessary to address mental health disparities and increase the utilization of evidence-based treatments amongst minority families (Callejas, Hernandez, Nesman, & Mowery, 2010; Kazdin & Blase, 2011). One suggested strategy is incorporating natural helpers (i.e., community health workers), community members who provide informal support, advice, and tangible aid to underserved families (Israel, 1985) into parent training programs (Acevedo-Polakovich, Niec, Barnett, & Bell, 2013; Calzada et al., 2005; Williamson, Knox, Guerra, & Williams, 2014). Various benefits have been identified for including natural helpers in the provision of children's mental health services (Hoagwood et al., 2010; Rhodes, Foley, Zometa, & Bloom, 2007; Stacciarini et al., 2012): 1) they have established relationships and trust with the parents they serve; 2) they are capable of providing specific advice and guidance, along with referrals to available services; and 3) they

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frequently serve as community role models and impart skills by their own example. Natural helpers may be especially useful for Latina/o families, as research suggests higher rates of informal service utilization (e.g., peer-support) amongst this population (Garland et al., 2005; Villatoro, Morales, & Mays, 2014).

Latina/o parents have expressed an interest in receiving parenting support from natural helpers (Niec et al., 2014) and natural helpers have expressed a desire to be trained to provide these services (Acevedo-Polakovich et al., 2014). Some efforts have trained natural helpers in the provision of evidence-based parent training programs, but these trainings have not been evaluated (Calzada et al., 2005; Williamson et al., 2014). For example, Calzada et al. (2005) described a protocol to train successful graduates of *ParentCorps*, a parent training prevention program delivered in urban, ethnically-diverse settings (Brotman et al., 2011), to assist professionals in delivering the intervention. This protocol emphasized a need to meet the varied educational backgrounds of the natural helpers being trained by providing structured but informal didactics, along with ongoing supervision. In order to understand how natural helpers may help to reduce mental health disparities, further research is necessary that describes and evaluates how they are trained (Rhodes et al., 2007). Evaluations of trainings should address how knowledge and behavior change over the course of training, as both are necessary to properly implement interventions (Beidas & Kendall, 2010). This paper describes and evaluates the feasibility of a training program intended to prepare natural helpers to increase recruitment and parental engagement in PCIT amongst urban, Latina/o families.

1.1. Parent-child interaction therapy

PCIT is a parent training program with strong evidence of efficacy in treating young children with conduct problems along with a wide range of other emotional and familial concerns (Carpenter, Puliafico, Kurtz, Pincus, & Comer, 2014; Chaffin et al., 2004; McCabe & Yeh, 2009). The program is conducted in two phases, the Child-Directed Interaction (CDI) phase is focused on enhancing the parent-child relationship, and the Parent-Directed Interaction (PDI) phase is focused on effective discipline practices (Eyberg & Funderburk, 2011). PCIT has demonstrated efficacy with Mexican-Americans (McCabe & Yeh, 2009) and Puerto Ricans (Matos, Bauermeister, & Bernal, 2009), and Latina/o parents generally react favorably to its core components (Niec et al., 2014).

Core components of PCIT include a focus on the parent-child relationship, the use of in vivo feedback (i.e., coaching) to reinforce the parent's skill acquisition, and the use of assessment-guided treatment (Eyberg & Funderburk, 2011). Parent training programs that focus on increasing positive parent-child interactions and require parents to practice new skills with their children in session have larger effect sizes than those without these components (Kaminski, Valle, Filene, & Boyle, 2008). Assessment-guided treatment guarantees that the parents have reached mastery criteria for child-led play and discipline skills before they graduate, which indicates that they have a high level of proficiency with the skills they need to manage their children's behaviors (Eyberg & Funderburk, 2011). Practicing parenting skills until mastery is reached may be especially important for immigrant families, as some of these practices are less culturally familiar and are therefore more challenging to implement successfully (Lau, Fung, Ho, Liu, & Gudiño, 2011; McCabe et al., 2013).

Engaging urban, ethnic minority families in PCIT can be problematic, as these families demonstrate higher rates of dropout than are typically found in research studies (Lyon & Budd, 2010). Adaptations to PCIT have been made to increase parental engagement once parents are referred to treatment (Chaffin et al., 2004; Chaffin et al., 2009; McCabe & Yeh, 2009), but no known efforts have addressed strategies to improve recruitment of high-risk families into the program. Consequently, the engagement strategies that have been researched only help families who are already referred to treatment, but do not reach families who have not yet initiated services. Unfortunately, these families may have the

highest need for services, and engaging them in treatment is imperative (McKay & Bannon, 2004).

As trusted members of the community, natural helpers are in a unique position to reach underserved families, refer them to treatment, and increase their engagement once they enroll in PCIT. Given these strengths, researchers and policy makers have increasingly advocated for the incorporation of natural helpers in mental health services (e.g., Acevedo-Polakovich et al., 2013; Kazdin & Blase, 2011; Rhett-Mariscal, 2008; Stacciarini et al., 2012). However, limited research has identified how to train natural helpers to best support evidence-based treatments. The involvement of natural helpers into parenting interventions, such as PCIT, must not detract from their effectiveness. Research suggests that parenting programs that include ancillary services (e.g., case management) may have diminished effectiveness, potentially due to parents and service providers becoming distracted from parent skill development (Chaffin et al., 2004; Kaminski et al., 2008). As natural helpers frequently provide ancillary services (e.g., Rhett-Mariscal, 2008; Rhodes et al., 2007; Stacciarini et al., 2012), which may not be evidence-based, it is critical that they receive training in strategies that could enhance engagement and outcomes. Potentially effective roles for natural helpers include recruiting families into care, preparing parents for the expectations of an evidence-based treatment (e.g., requirements of in-home practice), and providing treatment consistent support (e.g., additional opportunities for skill practice). By observing and promoting home skill practice, natural helpers may improve the quality of this important component of treatment. These roles are consistent with research on cultural adaptations of parent training, which suggest that additional modeling, monitoring of parental use of techniques, and rehearsal of parenting skills could improve outcomes for ethnic minority families (Lau, 2012).

1.2. Community context of the PCIT natural helper training

The PCIT natural helper training program was developed in Miami, Florida through a community-academic partnership between a certified PCIT trainer and a nonprofit agency with a well-established natural helpers program to increase service accessibility and utilization amongst community members. Collaborations between community-based organizations and behavioral health service providers have several benefits for increasing treatment engagement with impoverished, ethnic minority families, which include improving: (1) the cultural and linguistic sensitivity of the services; (2) the reputation of the behavioral health service providers in the community; and in turn (3) the utilization of services by minority families (Callejas et al., 2010).

The community agency serves a high-risk population within an urban neighborhood with a high density of Latino immigrants. Approximately 73% of this neighborhood's residents self-identify as being foreign-born from countries and regions including Cuba, Central America, South America, Mexico, or the Caribbean (U.S. Census, 2007–2011; ConnectFamilies, 2014). Over 50% of the community self-identifies as not speaking English or not speaking English well, which may limit access to care (U.S. Census, 2007–2011). The majority of adult residents have not completed their high school education and the median household income is approximately \$24,000, which is significantly lower than the median household income of residents across Florida (approximately \$47,000; US Census, 2014). As identified through local community meetings with 332 residents across diverse locations within the neighborhood, a substantial proportion of residents in this community have need for and openness to psychological services, but access problems may greatly limit their ability to obtain these services (ConnectFamilies, 2014).

1.3. Feasibility of the natural helper training program

To date, no known research has evaluated the training and consultation needed for natural helpers to effectively support recruitment and

engagement in PCIT. This evaluation of the training program was developed to inform the feasibility of such efforts. The objectives of this training and evaluation were to: (1) increase the natural helper's knowledge of PCIT; (2) determine if natural helpers could reach mastery criteria with PCIT-targeted parenting skills (Eyberg & Funderburk, 2011) so they could model these skills for parents in the community; and (3) determine if natural helpers could reliably conduct behavior observations of targeted parent behaviors and provide feedback to parents based on their skills practiced in the home.

2. Method

2.1. Participants

Five natural helpers were included in the training, including four females and one male. The primary role of three of the natural helpers was providing referrals and in-home support to the families, and the primary role of the other two natural helpers was care coordination. All natural helpers were paid employees of the community agency, and worked between 20 and 40 h per week. Natural helpers were of Colombian, Guatemalan, Cuban, and Nicaraguan descent, and spoke Spanish fluently. Only one identified as being bilingual in Spanish and English. Of the four natural helpers that provided this information, ages ranged from 32 to 51 years old. Natural helpers reported having between 14 and 16 years of formal schooling, and between 3 months and 16 years of experience in a position where they helped families. Natural helpers reported serving a range of 3 to 20 families individually per week, and that the majority of their abilities to help families came from personal life experiences, along with trainings they received through the agency that focused on typical job duties (e.g., health promotion, system navigation).

2.2. Measures

2.2.1. Demographic form

All measures were administered in Spanish. Natural helpers completed a form designed to collect information on their personal (e.g., ethnicity, gender) and professional (e.g., job responsibilities, education) backgrounds.

2.2.2. PCIT knowledge quiz

(Gurwitsch, Funderburk, Nelson, & Cook, 2006). A 12-item, multiple-choice quiz, initially developed to measure therapist knowledge of PCIT, was adapted to address the natural helpers' role with the family. The quiz evaluated the natural helpers' knowledge of PCIT principles (e.g., selective attention) and practices (e.g., timeout). Half of the items focused on the CDI phase of treatment and half focused on PDI.

2.2.3. Dyadic parent-child interaction coding system, Fourth Edition (DPICS-IV)

The DPICS-IV (Eyberg, Nelson, Ginn, Bhuiyan, & Boggs, 2013) is a behavioral observation coding system that was designed to measure the quality of interactions within parent-child dyads. The measure has good inter-rater reliability (Eyberg et al., 2013) and treatment sensitivity (McCabe & Yeh, 2009), and it can distinguish between treatment-referred and non-referred Latina/o families (McCabe, Yeh, Lau, Argote, & Liang, 2010). The DPICS has been used to measure parenting behaviors in Spanish speaking families (McCabe & Yeh, 2009; McCabe et al., 2010; McCabe et al., 2013). The DPICS observations involve three standard parent-child interactions: Child-Led Play, Parent-Led Play, and Clean-Up, which are coded for five minutes each. This study used the following DPICS-IV parent codes: Neutral Talk, Behavior Description, Labeled Praise, Unlabeled Praise, Reflection, Question, Negative Talk, Indirect Command, and Direct Command.

The DPICS-IV was included in three outcome measures for the training. (1) Natural helpers' ability to meet the mastery criteria for parents

to graduate from the CDI phase of treatment. (2) Natural helpers' ability to meet mastery criteria for parents to graduate from the PDI phase of treatment. (3) Natural helpers coded criterion videos to measure their ability to use the DPICS to conduct reliable behavior observations of parent-child interactions in the home.

Bilingual graduate students were trained until they reached 80% agreement with criterion videos in Spanish before they began coding DPICS-IV videos for this study. Interrater reliability was calculated for 50% of the behavior observations of natural helpers using child-led and discipline skills. Interrater agreement was fair for questions ($ICC = 0.64$) and good to excellent for all other codes ($ICC = 0.77-0.99$).

2.2.4. Natural helper feedback measure

A coding measure was developed to evaluate the brief feedback (i.e., 2 to 5 min) that natural helpers give parents after skill practice. After watching a video of a standardized parent-child interaction, natural helpers provided a trainer, who acted as a parent in the video, feedback on their skill usage in the interaction and suggestions for skill improvement. The natural helpers' feedback was rated in three areas: (1) correctly identifying the strongest and weakest skill the parent used during their skill practice, (2) discussing a skill to work on in future practice as well as a rationale for working on that skill, and (3) providing suggestions for and practice of strategies to improve the skill. Ratings ranged from 0 (i.e., the natural helpers did not include that component in their feedback or made an error) to 3 (i.e., all the feedback was complete and correct) for all three areas, with the possibility of a maximum score of 9 (see Appendix A for rubric used for rating feedback). Two bilingual, post-doctorate level trainers independently coded natural helpers' feedback during role-plays at post-training and post-consultation. Discussion about the coding led to modifications of the measure, recoding, and consensus ratings for each role-play.

2.2.5. Attitudes towards training questionnaire

At the end of training, a 12-item questionnaire developed for this evaluation was administered to natural helpers to measure their satisfaction with training. Eleven of the items were rated on a 5-point Likert scale (1 = Strongly Disagree and 5 = Strongly Agree), and the final item was open response.

2.3. Procedure

2.3.1. Development of training

As cultural responsiveness (Minkler, 2005) and implementation (Faridi, Grunbaum, Gray, Franks, & Simoes, 2007) improves when academics incorporate the perspectives of the community members, a shared-decision making approach was used when developing and executing the training and consultation. Similarly to Williamson et al. (2014), who developed a community health worker delivered parent training program within the context of an academic-community partnership, this study sought to meet the community's need for improved parenting services while working within the pre-existing service delivery model at the agency. At the outset of the partnership, a meeting was held with agency leaders and natural helpers to seek input on PCIT, the roles they would have with families, and their preferences for training. In collaboration, the natural helpers and the PCIT trainers determined that the trainings would train natural helpers as care extenders with the following goals: (1) increase the natural helpers' overall knowledge of the PCIT model, (2) teach the natural helpers the parenting skills used in PCIT, (3) train the natural helpers to observe and provide positive feedback on the targeted parenting skills, and (4) prepare the natural helpers to address common logistical and attitudinal barriers (e.g., stigma) to PCIT. Natural helpers also requested specific training related to talking to parents who used physical discipline, so additional time and resources were provided to help with these conversations they had with parents. Feedback was elicited from natural helpers

after the initial training to inform the format and content they wanted covered in consultation.

2.3.2. Training and consultation

A bilingual doctoral candidate and a bilingual, bicultural postdoctoral fellow, both of whom had extensive experience training clinicians in PCIT, conducted all training and consultation activities. A licensed Clinical Psychologist, who had been certified by PCIT International (i.e., the authorized organization for research and training in the empirically-supported PCIT protocol) as a trainer, supervised the training and consultation. Based on the agency's preference, training was conducted bi-weekly for seven, four-hour sessions. Training was recorded and provided to natural helpers to review if they missed a day. Only two natural helpers missed one day of training each. The first three days of the training were primarily dedicated to the child-led skills taught in the CDI phase of treatment, and the next three days were focused on the discipline skills taught in the PDI phase. The final training day was used to address logistical concerns and complete post-training evaluation measures (see Table 1 for training activities). Training methods included videos to model skills, promote discussions, and build self-efficacy (Bandura, 1977; Webster-Stratton, Reinke, Herman, & Newcomer, 2011) and active practice with in vivo feedback (i.e., coaching of natural helpers/trainers acting as the parent and the child). Opportunities to be coached on parenting skills allowed natural helpers to quickly gain proficiency in the PCIT parenting skills and better understand the coaching experience so they could normalize it for parents. Beyond training natural helpers to use the parenting skills, they were taught to provide parents with brief feedback on their skill practice in the home. Natural helpers were provided with scripts and worksheets designed to help them provide feedback. First, the trainer modeled how to provide feedback to parents and led a discussion with the natural helpers about their perceptions of what made the feedback effective. Then natural helpers practiced giving each other this feedback within role-play scenarios, with the trainer providing them with immediate reinforcement, corrections, and suggestions. The trainers provided the natural helpers with homework to help them consolidate their knowledge and skills throughout the training.

After the initial training, natural helpers received approximately 20 h of bi-weekly consultation (12 sessions over six-months) and then had a four-hour booster training one week prior to the post-

consultation assessment. Attendance during consultation was consistent and all natural helpers attended the booster training. Activities focused on improving natural helper efficacy with coding parent behaviors, providing feedback to parents on their skill practice, on making referrals to the PCIT clinic, and case supervision. Consultation continued to use active teaching methods, such as role plays, coding videotaped and live parent-child interactions, and in vivo feedback on natural helpers' skill use. Between consultation sessions, natural helpers were given homework assignments designed to solidify their coding knowledge and skills. When possible, they also video recorded their in-home observations of parent-child interactions and their feedback to parents during these sessions, and these videos were later reviewed with the trainer during consultation. The booster training included review and practice of natural helpers' use of targeted parenting skills, coding of parent behaviors, and providing feedback for child-led and parent-led skills.

2.3.3. Evaluation

Most paper and pencil measures were administered at the beginning of the first day of training, on the last day of training, and one week after the booster training. Behavior observations were first conducted after the natural helpers learned about the skills but before they had an opportunity to practice or receive in vivo feedback, again at the end of the initial training, and at the booster training. Five-minute videos of a parent-child dyad engaged in child-led play and parent-led play were selected as criterion videos to assess the natural helpers' ability to accurately code parent-child interactions using the DPICS. These criterion-coding videos were administered after learning the different coding categories (i.e., behavior description, reflection, labeled praise), on the final day of training, and at the booster training.

2.4. Analysis

Given the small sample of natural helpers ($n = 5$), formal statistical tests were not conducted. Instead, we relied on the use of descriptive statistics, and Cohen's (1988) d was computed as a measure of effect size comparing pre-training, post-training, and post-consultation means. Morris and DeShon's (2002) equation was used to control for dependence from repeated measurement, which takes into account the correlation between the means. Cohen's (1988) d guidelines are

Table 1
Natural helper training content.

Day	Topics	Activities	Homework	Evaluation
1	Overview of PCIT appropriate clients	Videos/discussion of PCIT, role play CDI didactic session	Identify a family for PCIT	Demographic form PCIT Knowledge Quiz
2	CDI skills Behavior observations	Practice/coach CDI skills, videos/discussions of special time, presentation on DPICS-IV coding	DPICS-IV video quizzes	Initial CLP behavior observation
3	Selective attention Giving feedback on CDI skills	Practice/coach CDI skills, videos/discussion of selective attention, role play feedback for child-led skills	Role play feedback on home practice	DPICS CLP criteria coding
4	Effective discipline Observing discipline/child compliance	Coding discipline skills, role play PDI didactic session, videos/discussion of timeout, practice/coach PDI skills	Video quizzes for coding commands and follow-through	Initial PLP behavior observation
5	Setting up timeout Giving feedback on discipline skills	Videos/discussions about setting up timeout. Practice/coach PDI skills and feedback	Role play setting up timeout	DPICS PLP criterion coding
6	Physical discipline How to generalize PCIT principles	Videos/discussions about physical discipline, how to generalize PCIT skills. Practice/coach CDI, PDI skills and feedback	Meet with trainers for individual feedback	
7	How to make a PCIT referral Preparing for future consultation	Videos/discussion about referrals, final assessments with individual feedback	Begin to make PCIT referrals	PCIT Knowledge Quiz CLP & PLP behavior observation DPICS CLP & PLP criterion coding Attitudes towards training

Note. CLP = Standard Child-Led Play Situation. PLP = Standard Parent-Led Play Situation.

used to describe effect sizes (small ≥ 0.20 , medium ≥ 0.50 , and large ≥ 0.80).

3. Results

3.1. Knowledge of PCIT

Natural helpers demonstrated an increase in overall knowledge of PCIT as measured by the 12-item, multiple-choice quiz. Knowledge of PCIT increased from pre-training ($M = 4.00$, $SD = 2.00$) to post-training ($M = 9.20$, $SD = 2.17$), with effect sizes in the large range ($d = -1.88$). Although scores decreased somewhat from post-training to post-consultation ($M = 8.00$, $SD = 1.58$), these scores remained higher than scores at pre-training ($d = -1.92$).

3.2. Parenting skills

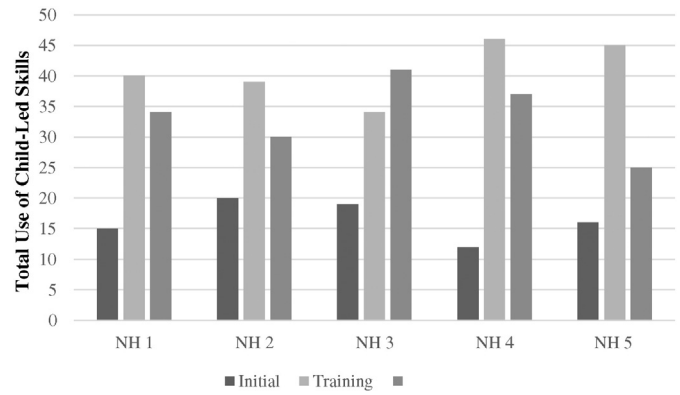
3.2.1. Child-led parenting skills

On average, natural helpers demonstrated a large increase in their total use of child-led parenting skills from their initial 5-min behavior observation ($M = 16.40$, $SD = 3.21$) to their post-training ($M = 40.80$, $SD = 4.87$; $d = -3.22$), and post-consultation observations ($M = 33.40$, $SD = 6.19$; -2.47). Four of the five natural helpers met the criteria for mastery of CDI skills by the end of training (i.e., 10 labeled praises, 10 reflections, 10 behavior descriptions; Eyberg & Funderburk, 2011), but only one of them maintained this after six-months of consultation (Table 2). When the natural helpers did not meet mastery criteria, they still used a high level of combined child-led parenting skills (Fig. 1).

Natural helpers showed a substantial decrease in the use of leading or demanding behaviors from the initial behavior observation ($M = 19.00$, $SD = 15.31$) to their post-training ($M = 0.20$, $SD = 0.45$; $d = 1.54$) and post-consultation observations ($M = 0.80$, $SD = 1.79$; $d = 1.45$), suggesting the training had desirable, large effects in this area. All of the natural helpers met mastery criteria related to avoiding leading or demanding behaviors during child-led play (i.e., fewer than three questions, commands, and negative talks in total) at the end of training, and four of the natural helpers met this criteria after consultation.

3.2.2. Effective discipline skills

On average, natural helpers increased their percentage of effective commands with correct follow-through from their initial observation (Effective Commands: $M = 69.0\%$, $SD = 32.53$; Correct Follow Through: $M = 57.2\%$, $SD = 26.03$) to post-training (Effective Commands: $M =$



Notes. N = 5. NH = Natural Helper. Training = Post-training observation. Consult = Post consultation observation.

Fig. 1. Changes in child-led parenting skills.

77.3%, $SD = 25.14$; Correct Follow Through: $M = 86.9\%$, $SD = 20.08$) and post-consultation observations (Effective Commands: $M = 84.0\%$, $SD = 9.46$; Correct Follow Through: $M = 88.8\%$, $SD = 14.74$). Effect sizes were small for changes in the percentage of effective commands used from the initial to post-training observation ($d = -0.33$) and medium from initial to post-consultation ($d = -0.52$), and large for correct follow through at both time points (Post-Training: $d = -0.92$; Post-Consultation: $d = -0.97$). Natural helpers demonstrated a strong ability with discipline skills from the first assessment point, with four of the five natural helpers meeting mastery criteria for PDI skills, which includes giving effective commands with the correct follow-through 75% of the time. At the end of training, three of the five natural helpers met mastery criteria for PDI discipline skills, with four of the natural helpers meeting this criteria by the end of consultation (Table 2).

3.3. Reliable coding

Accurate DPICS-IV coding continued to be a challenge for natural helpers throughout training and consultation. On average, inter-rater agreement on child-led play criterion coding did not improve from the initial coding ($M = 58.2\%$, $SD = 3.96$) to post-training ($M = 57.4\%$, $SD = 11.59$; $d = 0.09$), but did demonstrate a large improvement after six months of consultation ($M = 70.2\%$, $SD = 7.36$; $d = -1.37$). Natural helpers decreased in their inter-rater agreement with parent-led play coding from the initial observation ($M = 60.0\%$, $SD = 14.14$)

Table 2

Changes in abilities to use and code parenting skills.

		Child-led skills				Parent-led skills		Coding reliability	
		LP	BD	RF	Avoid behaviors	Effective command	Correct follow-through	CLP	PLP
NH 1	Initial	2	0	13 ^a	25	–	–	55%	–
	Post-training	18 ^a	12 ^a	10 ^a	0 ^a	66%	54.5%	63%	60%
	Post-consult	8	17 ^a	9	0 ^a	82 ^a	64%	82%	60%
NH 2	Initial	0	1	19 ^a	43	100% ^a	100% ^a	53%	40%
	Post-training	12 ^a	13 ^a	14 ^a	1 ^a	100% ^a	100% ^a	46%	40%
	Post-consult	10 ^a	24 ^a	6	0 ^a	80% ^a	100% ^a	64%	50%
NH 3	Initial	8	0	11 ^a	8	88% ^a	88% ^a	60%	60%
	Post-training	10 ^a	10 ^a	14 ^a	0 ^a	40%	80% ^a	59%	40%
	Post-consult	13 ^a	14 ^a	14 ^a	0 ^a	83% ^a	90% ^a	71%	70%
NH 4	Initial	5	3	4	13	38%	38%	62%	70%
	Post-training	16 ^a	16 ^a	14 ^a	0 ^a	80% ^a	100% ^a	73%	70%
	Post-consult	10 ^a	6	21 ^a	0 ^a	100% ^a	90% ^a	70%	70%
NH 5	Initial	4	10 ^a	0	6	88% ^a	75% ^a	61%	70%
	Post-training	9	31 ^a	12 ^a	0 ^a	100% ^a	100% ^a	46%	40%
	Post-consult	5	17 ^a	3	4	75% ^a	100% ^a	64%	70%

Note. LP = Labeled Praise. BD = Behavioral Description. RF = Reflection. Avoid Behaviors = Questions, Commands, and Criticisms. CLP = Child-Led Play Behavior Observation Coding. PLP = Parent-Led Play Behavior Observation Coding. NH = Natural Helper.

^a Met mastery criteria.

to the end of training ($M = 50.0\%$, $SD = 14.14$; $d = 0.69$), though they showed a small improvement from their first coding by the end of consultation ($M = 64.0\%$, $SD = 8.94$; $d = -0.27$).

3.4. Natural helper feedback ability

Natural helpers were rated on their ability to give feedback to parents in role-play situations with standardized video-taped interactions at the end of training and after six months of consultation. Feedback was stronger for child-led skills ($M = 5.60$, $SD = 1.14$) than discipline skills ($M = 3.40$, $SD = 2.41$) at post-training and post-consultation (Child-led: $M = 7.00$, $SD = 0.71$; Discipline: 4.20 , $SD = 2.17$). Effect sizes for improvements in feedback on child-led skills were in the large range ($d = -1.29$) and small for parent-led skills ($d = -0.35$). On average, feedback improved after six months of consultation (see Table 3), but natural helpers struggled to demonstrate a high level of competence in correctly describing the parents' skill usage, identifying an appropriate area of improvement, and explaining how to improve this skill area. After training and consultation, natural helpers predominantly struggled to provide parents with suggestions in strategies to improve their weaker skills for both child-led and parent-led skills (e.g., techniques parents could use to make the praises they gave more specific and effective). Specifically for parent-led skills, natural helpers made errors in their coding which impacted the accuracy of their feedback and led to lower scores.

3.5. Training satisfaction

Natural helpers rated high levels of satisfaction with the training ($M = 49.00$, $SD = 1.00$) out of a total of 50 possible points. Their qualitative responses also indicated overall positive experiences with the training (e.g., "I want to thank the training team for what they taught us because I am certain that now we have a very powerful tool to help many families").

4. Discussion

Pervasive challenges related to recruiting and retaining low-income, ethnic minority families into evidence-based parent training programs have significantly limited the public health impact of these interventions (Hoagwood et al., 2014). As members of the communities they serve, natural helpers are in an excellent position to guarantee that underserved, immigrant families receive the benefits of effective treatments, such as PCIT. However, limited research has investigated the training needs of natural helpers, in order to best leverage their potential to decrease service disparities (Acevedo-Polakovich et al., 2014; Stacciarini et al., 2012). This study represents an innovative, community-partnered approach to train natural helpers to increase underserved, Latina/o immigrant parents' entry into and engagement (i.e., adherence and retention) in PCIT. The initial evaluation of the training program demonstrated promise as natural helpers' knowledge of

PCIT and ability to model parenting skills improved with predominately large effects over the course of training and consultation. Furthermore, natural helpers expressed a high level of satisfaction with the training and PCIT, and expressed a desire to recruit families into care and support their treatment. Coding of behavior observations of parent skill practice and feedback to promote skill development were more challenging for natural helpers to master. Findings from this evaluation will inform future natural helper training efforts, with the ultimate goal of improving care for hard to reach, vulnerable populations.

A strength of this evaluation was the inclusion of behavior observations to assess the natural helpers' acquisition of skills as trainings need to change behaviors to be effective (Beidas & Kendall, 2010). Mastery of child-led and discipline parenting skills is a requirement for parents to successfully graduate from PCIT (Eyberg & Funderburk, 2011) and for therapists to be certified in PCIT (PCIT International, 2013). After the initial 28 h of training, most natural helpers met CDI mastery criteria. Though only one natural helper met these criteria after consultation, all natural helpers continued to use child-led skills at a high frequency. This is notable, as a previous evaluation of a PCIT training for 36 community clinicians, the majority of whom had Master's degrees, found that only 17% reached mastery of these skills after reading the treatment manual and completing a two-day training (Herschell et al., 2009). By the end of consultation, most natural helpers were able to give effective commands and use appropriate follow-through, indicating their ability to model consistent discipline practices. It is difficult to determine whether discipline skills were acquired at a similar rate than what is seen in training Master's-level community clinicians, as previous PCIT training research has not examined PDI skills mastery (Herschell et al., 2009). Given this study's small sample size, comparison to the training of Master's-level clinicians should be done with caution. These findings need to be replicated with a larger sample of natural helpers to improve their generalizability.

This evaluation is not able to identify the specific factors that led to success with these skills. It is likely that the use of in vivo feedback helped to facilitate skill acquisition and that spacing the training over 14 weeks allowed for additional practice and skill consolidation between training sessions. Natural helpers mentioned how they frequently practiced the parenting skills in their office to help build their skills. The majority also noted using the skills with their children at home. Identifying the explanatory mechanisms for this effect could have a strong potential impact on the PCIT training of both clinicians and natural helpers.

Natural helpers were also taught how to conduct behavior observations of parents' skill practice in the home and to provide brief feedback based on the results of these observations in order to promote skill development. Based on their performance coding a standardized, video-recorded parent-child interaction, natural helpers continued to struggle with behavioral coding at the end of the training, though they improved over the course of consultation. Therapists are expected to correctly code behaviors with 80% inter-rater reliability to become certified in PCIT, which one natural helper accomplished at the end of consultation with a child-led play observation (PCIT International, 2013). Even though the DPICS has been used to measure parenting skills in Spanish speaking populations (McCabe & Yeh, 2009; McCabe et al., 2010; McCabe et al., 2013), the DPICS-IV does not have a translated Spanish manual, so natural helpers did not have this resource to guide their coding practice, which may have impacted their ability to reach therapist level of coding proficiency. Instead, the trainers provided natural helpers with interactive video training quizzes to learn the DPICS-IV and edited sections from an abbreviated Spanish DPICS manual (CAARE Center, UC Davis Children's Hospital's, 2010) that was limited in coding guidelines compared to the English manual. Additionally, therapists typically have more opportunities to practice coding before they are required to meet the 80% criteria at the end of the consultation period. During the one-year consultation period, community clinicians are typically actively involved in providing PCIT services to families. In

Table 3
Ratings of feedback competency.

		CLP feedback	PLP feedback
NH 1	Post training	5	2
	Post consultation	6	1
NH 2	Post training	4	0
	Post consultation	7	4
NH 3	Post training	7	5
	Post consultation	7	4
NH 4	Post training	6	6
	Post consultation	7	7
NH 5	Post training	6	4
	Post consultation	8	5

Notes. CLP = Child-Led Play Scenario. PLP = Parent-Led Play Scenario. NH = Natural Helper.

the current study, however, natural helpers had few opportunities to practice their skills with families. A total of ten families were referred to PCIT and five families initiated services within the six months of consultation following the initial training. Finally, the natural helpers' performance with coding and providing feedback may have been impacted by their perceptions of these activities. During the training, natural helpers expressed some apprehension about observing parents and providing feedback, because they did not want to appear to judge the parents. These concerns were addressed by trainers, by explaining how to stay positive with the feedback; however, this initial hesitation may have impacted the acquisition of coding and feedback skills.

Despite these challenges to learn and practice coding, it should be noted that natural helpers were able to accurately identify trends in parents' skill usage, such as correctly recognizing the most and least frequently used skill. Given that natural helpers were trained primarily to reinforce parents for using skills frequently and to help them further develop weaker skills, it is likely not necessary for them to code with the same level of accuracy required for PCIT therapists. Instead, for their role as promoters of skill development in the home setting, they may only need to be able to identify skill trends. Based on this feasibility study, the extensive amount of time dedicated to accurate coding in training and consultation may have detracted from necessary training on providing brief feedback and problem solving to improve skill acquisition during home practice.

Finally, it should be noted that natural helpers expressed a high level of satisfaction with the training and the PCIT program, both on the post-training rating form and in conversations with the trainers. It is possible that these natural helpers were already predisposed towards the parenting practices taught in PCIT. For example, they endorsed strongly agreeing with timeout before training occurred, even though past research found that Latina/o parents and natural helpers had concerns about the use of this discipline technique (Acevedo-Polakovich et al., 2014; Niec et al., 2014). This may be attributable, in part, to the fact that the agency that employs these natural helpers was developed specifically as a way to provide community-based child maltreatment prevention services. Nonetheless, many of the natural helpers attributed their enthusiasm for PCIT to the positive experiences they had using the skills they learned. During individual meetings with the trainers, each of the natural helpers noted that the PCIT training had impacted them personally, especially in the way that they interacted with their own children.

5. Limitations and future directions

While this study represents an important first step to exploring the utilization of natural helpers within behavioral parent training, there are some limitations to the findings of this evaluation. First, this represents a first attempt to evaluate the feasibility of training natural helpers to utilize skills similar to PCIT therapists and the training cohort represents a very small sample size. It is not clear at this point if training outcomes are generalizable or if positive findings, such as reaching mastery on parenting skills at a rate similar to Master-level clinicians (Herschell et al., 2009), were unique to this small sample of natural helpers. Nevertheless, the multi-method assessment-driven approach that was employed to evaluate training outcomes including knowledge assessments, self-report measures, behavior observations, and inter-rater agreement helped to address methodological concerns with the sample size. While natural helpers are moving towards state certification processes (Miller, Bates, & Katzen, 2014), the training of natural helpers continues to vary widely by agency, which may limit the generalization of findings.

Unfortunately, all assessments of natural helpers' skills were completed in role-play situations or criterion video. Future research examining the feasibility of the utilization of natural helpers within PCIT should evaluate how natural helpers demonstrate competency in use of CDI skills, PDI skills, behavioral observations, and feedback with the families

they serve. Similar to PCIT therapist training, it is expected that each natural helper will need to demonstrate consistent use of these skills with two families who complete the PCIT program. Evaluating the natural helpers' ability to implement their care extender roles with fidelity is in an important next step.

Overall, natural helpers expressed positive attitudes towards the training, PCIT, and their desire to share what they learned with their community. These perspectives from the natural helpers are valuable when considering service delivery to underserved, ethnic minority parents. Past research has found that therapists are hesitant to teach certain parenting skills to immigrant parents because they do not find them to be culturally acceptable, although immigrant parents do not share these concerns (Lau, 2012; Morawska et al., 2012). The discrepancy has led parent-training researchers to warn against therapists serving as the "gatekeepers" to evidence-based services, as their apprehension about teaching certain techniques may lead to decreased fidelity in treatment delivery, further exacerbating mental health disparities for ethnic minority families (Morawska et al., 2012). Natural helpers may serve as an important bridge to the provision of culturally-competent care, as their perspectives on services may better represent the communities they come from, and they can advocate certain practices both with therapists and with the families they serve. Future research on natural helpers' capacity to enhance engagement in parent training programs is warranted, including an evaluation of client perspectives on natural helper delivered care. The extent that natural helpers actually increase PCIT utilization, engagement, and adherence above and beyond traditional PCIT services should be explored. That is, it is imperative to ensure that natural helpers provide an additive effect to PCIT services before broader dissemination is considered.

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Appendix A. Scoring rubric for natural helper feedback to parents.

	0	1	2	3
Give feedback on skill usage during coding	Does not give feedback on any skill usage –OR– In CDI, gives incorrect feedback about skill usage (e.g., say they had a lot of skill they did not use, or no skill they did use). If they use numbers and the numbers are <80% correct on labeled praises, reflections and behavior descriptions combined (does not include correct scoring for Neutral talk and Unlabeled Praises and Don't	In CDI, gives feedback that only addresses enthusiasm, warmth, having fun, imitation, or an unnecessary skill (e.g., unlabeled praises) but not labeled praises, behavior descriptions, reflections In PDI, gives feedback on general parenting or child behavior (e.g., consistent, you made her obey) or the PRIDE skills, but not Direct Commands or follow-through Even if a parent had 0 skills usage, still needs	Gives correct feedback on the parent's weakest and strongest skills, –BUT– feedback is incomplete (i.e., does not acknowledge that parent had few or no "don't behaviors" if fewer than 3 combined; fails to mention that parent did well on a PRIDE skill that was at or near mastery) If the parent does not have unequal skill distribution, they inform the parent of this.	Gives feedback on the strongest and weakest skills –AND– Feedback is complete (i.e., gives positive feedback on all skills that are at or near mastery). If the parent does not have unequal skill distribution, they inform the parent of this. Avoids emphasizing "Don't Behaviors" until after at least CDI Coach 2. Says a statement about something the parent did well even if it is not related to skills (e.g., you were so warm

(continued on next page)

(continued)

	0	1	2	3
	Behaviors), score 0. In PDI, the feedback they give undermines effective discipline, such as saying they used direct commands when they were indirect, or that the follow-through was appropriate if it was not.	to mention these skills in some way in feedback	In PDI, gives correct feedback on either if “most” commands are direct or indirect. Or identifies what is correct or incorrect about follow-through	with him). In PDI, identifies if “most” commands are direct or indirect and identifies what is correct/incorrect with regard to follow-through.
Suggests ways to improve that skill	Does not provide any tips or appropriate examples on how to improve that skill –OR– Gives incorrect examples	Provides basic reminders of what the skills are. For example, “Remember, labeled praises tell the child what it is that you like.” –OR– Simply provides examples of the skill without identifying a specific strategy for improving the skill.	Uses at least one specific strategy (e.g., from the improving PRIDE skills or discipline scripts). For example, they help a parent change neutral talks into behavior descriptions. –BUT– Suggestions are primarily didactic without getting feedback or examples from the parent. The strategy they pick may not directly correlate with the parent's coding (e.g., they suggest turning unlabeled praises into labeled praises, but the parent has very few unlabeled praises).	Uses specific strategies from the PRIDE skills or discipline scripts with ease. Correctly identifies how to turn skills parents used during coding into targeted skills (e.g., turning descriptions of the toys into behavior descriptions). –AND– Suggestions include getting feedback or examples from the parent. In PDI, identifies how to make commands effective with specific examples (e.g., encourages parent to restate broad commands to be more specific). –OR– Provides details for how to perform correct follow-through (e.g., remember to wait 5 s for compliance”). Engages the parent in recalling steps of correct follow-through.

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