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Examining the Bidirectional Relationship Between Therapist and Caregiver Interactions During Spanish-Language Parent-Child Interaction Therapy Coaching

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Clinical Psychology

by

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September 2024

The dissertation of Yessica Green Rosas is approved.

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June 2024

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To my family (my wonderful partner and my two kitties Oni and Fefe included), friends, mentors, colleagues, and community. Thank you for supporting and encouraging me during every step of this wild and deeply beautiful journey.

VITA OF YESSICA GREEN ROSAS
June 2024

EDUCATION & TRAINING

Bachelor of Arts in Psychology, University of San Diego, June 2019
Master of Arts in Counseling Psychology, University of California, Santa Barbara, June 2021
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AWARDS

2022Carol Genetti Graduate Mentoring Award
2022Donald R. Atkinson Diversity Enhancement Award
2021APA Interdisciplinary Minority Fellowship Program (IMFP) Honorable Mention
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2020Multidisciplinary Research on COVID-19 and its Impacts Grant
2020APA Interdisciplinary Minority Fellowship Program (IMFP) Honorable Mention
2019University of San Diego Distinguished Graduate in Academic Achievement, Research, and Service Award
2019University of San Diego First Honors
2019Western Psychological Association Student Scholarship Award
2018Ronald E. McNair Summer Research Fellowship
2018Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) Psychology & Social Sciences Clinical Psychology Presentation Award
2019 CCSP First-Year Fellowship

PUBLICATIONS

Barnett, M.L., Salem, H., Green Rosas, Y., Feinberg, E., Nunez-Pepen, R., Chu, A., Belmont-Ryu, H., Matsuno, E., Broder-Fingert, S. (2023). Adapting community health worker care models to advance mental health services among LGBTQ youth. *Administration and Policy in Mental Health and Mental Health Services Research.* https://doi.org/10.1007/s10488-023-01268-9

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Green Rosas, Y., Sigal, M., Barnett, M. L., Park., A. (2022) Predicting a rapid transition to telehealth delivered Parent-Child Interaction Therapy amidst COVID-19: A mixed-methods study. *Global Implementation Research Application* 2, 107–119.

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Barnett, M. L., Luis Sanchez, B. E., Green Rosas, Y., & Broder-Fingert, S. (2021). Future directions in lay health worker involvement in children's mental health services in the U.S. *Journal of Clinical Child and Adolescent Psychology, 50*(6), 966-978. https://doi.org/10.1080/15374416.2021.1969655

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Barnett, M., Klein, C., Gonzalez, J. C., Sanchez, B. E., Green Rosas, Y., & Corcoran, F. (2021). How do lay health workers engage caregivers? A qualitative study to enhance equity in evidence-based parenting programs. *Evidence-Based Practice in Child & Adolescent Mental Health.* https://doi.org/10.1080/23794925.2021.1993111

Klein, C., Luis Sanchez, B. E., Gonzalez, J.C., Flores, I., Green Rosas, Y., & Barnett, M. L. (2020) The role of advocacy within community-partnered research with "promotoras de salud." *Special Issue of Behavior Therapist.*

McCabe, K., Sakamoto, M., Green Rosas, Y., et al., (2020) Keeping an "I" on PRIDE: Measuring Imitation in Parent–Child Interaction Therapy, *Behavior Therapy,* https://doi.org/10.1016/j.beth.2020.01.009

ORAL PRESENTATIONS

Salem, H., Green Rosas, Y., Barnett, M.L., Feinberg, E., & Broder-Fingert, S. (2022, August). *Training and supervision needs for lay health workers supporting LGBTQ+ youth and their families.* Presented at the 56th Annual Convention for Association for Behavioral and Cognitive Therapies (ABCT), New York, NY.

Salem, H., Green Rosas, Y., Barnett, M.L., Feinberg, E., & Broder-Fingert, S. (2022, August). *Adapting navigation services for LGBTQ+ youth and their families.* Presented at the 2022 American Psychological Association Convention, Minneapolis, MN.

Larez, N.A., Green Rosas, Y., & Sharkey, J.D. (2022). Supporting Diverse Psychology Trainees: Considering Role Conflict and Community Workers in Training. Presented at the American Psychological Association conference, Minneapolis, MN.

Green Rosas, Y., Barnett, M., McCabe, K. (2021). Comparing English and Spanish Speaking Therapists' Coaching Behaviors. Presented at the meeting for the Society for Research in Child Development, Virtual Conference.

Yeh, M., McCabe, K., Zerr, A., Green, Y., Proctor, C., & Sakamoto, M. (August, 2018). Personalizing a Behavioral Parent Training Program for Culturally Diverse Youth. Presented at the American Psychological Association conference, San Francisco, CA.

Green Rosas, Y., Sakamoto, M., & McCabe., K. (August, 2018). Creating Reliable Methods to Code Imitation. Presented at the University of California, San Diego Annual Summer Research Conference.

Green Rosas, Y., Sakamoto, M., & McCabe., K. (August, 2018). Creating Reliable Methods to Code Imitation. Presented at the University of San Diego Summer Research Colloquium.

Green Rosas, Y., Proctor, C., & McCabe., K. (August, 2017). A Personalized Approach to Parent Child Interaction Therapy. Presented at the University of California, San Diego Annual Summer Research Conference.

Green Rosas, Y., Proctor, C., & McCabe., K. (May, 2017). A Personalized Approach to Parent Child Interaction Therapy. Presented at the University of San Diego Summer Research Colloquium.

Green Rosas, Y., & Berg, E., (May, 2017). Clinical Views on Ways to Present Timeout in Parent-Child Interaction Therapy to Culturally Diverse Families. Presented at the University of San Diego Student Research Colloquium.

POSTER PRESENTATIONS

Green Rosas, Y., Luis Sanchez, E., Chin, J., Gonzalez, J.C., Feinberg, D., & Barnett, M. (2023) Therapists' experiences with Spanish-language PCIT coaching. Poster presented at the meeting of the National Latinx Psychological Association, Chicago, IL.

Luis Sanchez, E., Green Rosas, Y., Wilson, S., & Barnett, M. (2023) Implementation strategies to improve the delivery of Parent-Child Interaction Therapy among Spanish-speaking families. Poster presented at the meeting of the Association for Behavioral and Cognitive Therapies, Seattle, WA.

McCabe, K., Sakamoto, M., Green Rosas, Y., Kehoe, K. (2019, August). Putting the "I" in PRIDE: Measuring imitation in Parent Child Interaction Therapy. Poster presented at the meeting of the PCIT International Biennial Convention, Chicago, IL.

La, R., Yeh, M., Zerr, A., McCabe, K., & Green-Rosas, Y. (2019, October). Social support and lifetime major depressive episode experience among Asian American adolescents. Poster presented at the meeting of the Asian American Psychological Association, San Diego, CA.

Green Rosas, Y., Sakamoto, M., Kehoe, K., La, Raymond., Zerr A., McCabe, K., Yeh, M. (2019, April). Developing reliable guidelines to code imitation. Poster session presented at the meeting of the Western Psychological Association, Pasadena, CA.

Sakamoto, M., Green Rosas, Y., Kehoe, K., Zerr, A., La, R., Yeh, M., & McCabe, K. (2019, April). Measuring imitation in Parent Child Interaction Therapy. Poster session presented at the meeting of the University of San Diego's Creative Collaborations.

La, R., Yeh, M., McCabe, K., Zerr, A., Green Rosas, Y., Ganger, W. (2019, August). Culture and parent- child (dis)agreement on etiological explanations for child mental health problems. Poster session presented for presentation at the meeting of the American Psychological Association, Chicago, IL.

McCabe, K., Green Rosas, Y., Sakamoto, M., Argero, Zerr., La, R., Kehoe, K., Yeh, M., Proctor, C. (2018, October). Creating reliable guidelines to code imitation. Poster session presented at the Society for Advancement of Chicanos/Hispanics and Native Americans in Science, San Antonio, TX.

La, R., Yeh, M., McCabe, K., Zerr, A., Green Rosas, Y., Sanchez, B. L., & Ganger, W. (2018, August). Immigration history, culture, and parent-child differences in functional impairment evaluations. Poster session presented at the meeting of the American Psychological Association, San Francisco, CA.

La, R., Yeh, M., McCabe, K., Zerr, A., Sanchez, B. L., Proctor, C., Green Rosas, Y., & Sakamoto, M. (2018, April). Parent-child cultural mismatch and differences in evaluating functional impairment. Poster session presented at the meeting of the Western Psychological Association, Portland, OG.

La, R., Yeh, M., McCabe, K., Zerr, A., Sanchez, B. L., Proctor, C., Green Rosas, Y., & Sakamoto, M. (2018, April). Parent-child cultural mismatch and differences in evaluating functional impairment. Poster session presented at the meeting of the University of San Diego's Creative Collaborations.

Luis Sanchez, B. E., Berg, E., Green Rosas, Y., McCabe, K., Zerr, A., & Yeh, M. (2017, April). Clinician views on Ways to Present timeout in Parent-child interaction therapy to culturally diverse families. Poster session presented at the meeting of the University of San Diego's Creative Collaborations.

Luis Sanchez, B. E., Berg, E., Green Rosas, Y., McCabe, K., Zerr, A., & Yeh, M. (2017, April). Clinician views on ways to present timeout in Parent-child Interaction Therapy to culturally diverse families. Poster session presented at the Western Psychological Association, Sacramento, CA.

RESEARCH EXPERIENCE

2022-2024 Dissertation: Examining the Bidirectional Effects of Therapist and Caregiver Interactions During PCIT
University of California, Santa Barbara
Chair: Miya Barnett, PhD

Utilizing a mixed methods design, this study aims to illuminate the bidirectional impact of therapist and parent behaviors during PCIT sessions. This study will provide clinical guidance for clinicians hoping to better engage Spanish-speaking and bilingual families in treatment.

2019-2023 Promoting Access through Dissemination/implementation Research on Evidence-based Services (PADRES) Lab
University of California, Santa Barbara
PI: Miya Barnett, PhD

Adapting Family Navigation to Improve Access to Mental Health Services for LGBTQ+ Youth
Funding: NIMH 3R01 MH117123 (Co-PIs: Broder-Fingert & Feinberg)
Coordinated a multi-site research study across UC Santa Barbara and Boston Medical Center. Project aimed at examining how Lay Health Workers (LHWs) can support LGBTQ+ youth in family navigation services. Interviewed LHWs and LGBTQ+ youth, managed participant data, coordinated transcription and auditing assignments, and conducted weekly meetings with a team of six undergraduate research assistants.

Lay Health Workers (LHW) Enhancing Engagement for Parents (LEEP)
Funding: NIMH K01 MH110608 (PI: Barnett)
Supported the coordination and completion of a multi-year mixed-method study which seeks to evaluate a LHW-delivered implementation support on reducing disparities in access to children's mental health services for Latinx families in community settings.

PCIT Covid-19 Research
Investigated facilitators to PCIT-clinicians' successful transition to telehealth. Study responsibilities included securing grant funding, survey design, IRB management, data management, data analysis, manuscript preparation, and dissemination of research findings.

2016-2019University of San Diego Child Development Lab
University of California, Santa Barbara
PIs: Kristen McCabe, Ph.D. & May Yeh, Ph.D.
NIMH R34 MH109561 (CO-PIs: McCabe & Yeh)

Supported the coordination of a feasibility trial testing a personalized version of PCIT (PersIn) to improve engagement and outcomes for culturally diverse families. Served as coding coordinator and research assistant in various aspects of the investigation, including participant recruitment, data management, and data analyses.

CLINICAL EXPERIENCE

2023-2024 Zuckerberg San Francisco General Hospital (ZSFG) Pediatric Primary Care
Supervisor: Kathryn Margolis, PhD

Providing mental health consultation for families and healthcare providers participating in the evidence-based HealthySteps program for families experiencing mental health concerns. Patients include primarily racial/ethnic minoritized families utilizing publicly funded insurance programs (e.g., Medi-Cal/Medicare).

2023-2024 Child and Adolescent Services (CAS)
Supervisor: Margareth Del Cid, PhD
Delivered empirically supported services (e.g., TF-CBT, CBT, DBT, and PCIT) to individuals and families at community mental health clinic. Clients include primarily trauma-exposed racial/ethnic minoritized families utilizing publicly funded insurance programs (e.g., Medi-Cal/Medicare).

2023-2024 Child Trauma Research Program (CTRP)
Supervisor: Vilma Reyes, PsyD
Delivered the evidence-based treatment, Child Parent Psychotherapy (CPP) to families with history of trauma. Clients include primarily trauma-exposed racial/ethnic minoritized families utilizing publicly funded insurance programs (e.g., Medi-Cal/Medicare).

2022-2023 Koegel Autism Center, Santa Barbara, CA
Supervisor: Anna Krasno, PhD
Administered various cognitive, personality, and language assessments for children and adults to assist differential diagnosis between autism spectrum disorder and other psychological, cognitive, and emotional concerns.

2019-2023 Parent-Child Interaction Therapy (PCIT) Clinic, Santa Barbara, CA
Supervisor: Miya Barnett, Ph.D.
Provided PCIT (in person and telehealth) to families with children experiencing externalizing problems including disruptive behavior disorders.

2021-2022 CALM, Santa Barbara, CA
Supervisors: Avery Voos, PhD & Melissa Cordero, PsyD
Delivered empirically supported services (e.g., TF-CBT, CBT, DBT, and PCIT) to individuals and families at community mental health organization. Clients included primarily trauma-exposed racial/ethnic minoritized families utilizing publicly funded insurance programs (e.g., Medi-Cal/Medicare).

2020-2021 Hosford Counseling and Psychological Services, Santa Barbara, CA
Supervisor: Jon Goodwin, PhD
Delivered weekly outpatient psychotherapy services to adolescents and adults at university clinic utilizing CBT and ACT-informed treatment models. Administered intake assessments to clients with various psychological disorders.

SUPERVISORY AND TRAINING EXPERIENCE

2022-2023 Hosford Counseling and Psychological Services, Santa Barbara, CA
Supervisor: Miya Barnett, PhD

Supervised junior doctoral-level clinicians delivering weekly outpatient psychotherapy services at university clinic. Conducted screening for potential clients with various psychological disorders including anxiety, depression, and PTSD.

2021-2023 Parent-Child Interaction Therapy (PCIT) Clinic, Santa Barbara, CA
Supervisor: Miya Barnett, PhD
International Training and Supervision
Co-led international PCIT trainings for clinicians in Chile and Mexico and co-supervised clinicians from Chile and Mexico providing PCIT and working towards PCIT certification.

PCIT Clinic Student Supervisor
Conducted screenings for potential new clients, assigned clinic provider caseload, and coordinated other clinic administrative tasks. Lead co-therapy with junior clinicians. Completed requirements for PCIT Within-Agency Trainer Certification.

TEACHING EXPERIENCE

Teaching Assistant
2021 Research Methods (CNCSP 102)
University of California, Santa Barbara

2021 Helping Relationships: Theory & Practice (CNCSP 101)
University of California, Santa Barbara

SERVICE AND MENTORSHIP

2021 McNair Scholars Program Graduate Student Mentor
2021 Society of Clinical Child and Adolescent Psychology, APA, Abstract Reviewer
2020 Sally Casanova Graduate Student Mentor

PROFESSIONAL AFFILIATIONS

2023 – National Latinx Psychological Association
2021 – Society for Research in Child Development, SRCD
2019 – Association for Behavioral and Cognitive Therapy, ABCT
2018 – American Psychological Association, APA
2017 – 2020 Western Psychological Association, WPA
2017 – 2018 Society for the Advancement of Chicanos/Latinos and Native Americans in Science, SACNAS

ABSTRACT

Examining the Bidirectional Relationship Between Therapist and Caregiver Interactions During Spanish-Language Parent-Child Interaction Therapy Coaching

by

Yessica Green Rosas

Parent-Child Interaction Therapy (PCIT) is an evidence-based behavioral parent training intervention (BPT) that has been shown to significantly reduce externalizing behavior problems in young children, typically between the ages of 2-7. As a primary component of treatment, PCIT therapists coach caregivers in the use of specific behavioral skills during session. It has been found that different coaching styles impact both caregiver skill acquisition as well as treatment adherence, making it an important mechanism of change to study. Although PCIT has been demonstrated to be efficacious for families of diverse backgrounds, there is currently very little research examining how therapist coaching is implemented for Spanish-speaking families. Therefore, the current mixed-methods QUANT + qual study quantitatively examines therapist and caregiver moment-to-moment interactions and gathers qualitative information from PCIT providers in order to better understand how therapist and caregiver verbalizations are affecting one another during PCIT, as well as PCIT therapist experiences coaching Spanish-speaking caregivers. For the quantitative analyses, participants

included 49 therapist-caregiver dyads from two previous PCIT clinical trials. Five-minute segments from the 49 therapist-parent dyads' second coaching session were transcribed. Parent and therapist verbalizations were coded using the Dyadic Parent-Child Interaction Coding System (DPICS) and the Therapist-Parent Interaction Coding System, respectively. Sequential analysis was conducted using Noldus The Observer XT software to obtain transitional probabilities of caregiver skill use after therapist coaching verbalizations and vice versa. Independent Samples *t* Tests were used to examine differences in how caregivers responded to therapist coaching in English-speaking and Spanish-speaking sessions. For qualitative analyses, participants included ten PCIT providers (5 therapists and 5 supervisors/trainers). Therapists and trainers conducted a 1-hour semi-structured interview during which they discussed their experiences providing PCIT coaching to Spanish-speaking caregivers. Rapid Qualitative Analysis (RQA) was conducted, and themes were identified regarding therapist experiences, challenges, and facilitators working with Spanish-speaking families. Results from the current study found that Spanish-speaking caregivers do not significantly differ in their responses to therapist coaching, and that therapists are more likely to follow caregiver skill use with a directive for parents to use an additional skill use in sessions conducted in English (M = .01, SD = .02) than in sessions conducted in Spanish (M = .00, SD = .00; t(39) = 2.518, p = .016). Qualitative findings from therapist interviews converge with quantitative findings, highlighting discomfort that therapists may experience being directive with Spanish-speaking caregivers. Additional qualitative themes are presented, and training considerations are discussed.

I. Background and Significance

Youth behavior problems are highly prevalent, negatively impact the youth and family, and have been found to be persistent if left untreated (Hong et al., 2015; Merikangas et al., 2010). Long-term outcomes of untreated early onset conduct problems may include later psychopathology, deviant behavior, poor academic success, and high societal costs (e.g., involvement in the justice system; Burt et al., 2018; Murray et al., 2015; Rissanen et al., 2022; Rivenbark et al., 2018; Scott et al., 2001). Unfortunately, low-income and ethnic minority families are at an increased risk for mental health issues given that they often face heightened levels of stressors, which may be due to financial burdens, immigration status, ethnic and racial discrimination and prejudice, as well as systemic and structural barriers to access to and engagement in proper mental health treatments (Cook et al., 2014; Pietrantonio & Llamas, 2020; Walsdorf et al., 2019). Furthermore, most Latine youth in the United States report experiencing at least one childhood traumatic event, with 30% experiencing four or more traumatic events in their life, putting them at high risk for mental health issues (Llabre et al., 2017). Despite the high need for services, disparities in access to and engagement in proper mental health care has also been reported for Black and Latine youth (Cook et al., 2013, 2014; Lu, 2017; Popescu et al., 2015). It is important for efforts to be focused on reducing these disparities in order to mitigate negative outcomes for ethnic minority children and families.

A. Parent-Child Interaction Therapy

Parent-Child Interaction Therapy (PCIT) is an evidence-based BPT that has been shown to significantly reduce externalizing behavioral problems in young children ages 2-7, and is currently considered a best-practice treatment approach for externalizing behavioral problems, as well as a promising transdiagnostic behavioral intervention given that it has been shown efficacious in treating behavioral problems for children with anxiety, depression, ADHD, and autism (Lenze et al., 2011; Lieneman et al., 2017; Pincus et al., 2005; Solomon et al., 2008; Wagner & McNeil, 2008). PCIT is divided into two phases. During the first phase, Child Directed Interaction (CDI), parents learn how to implement specific behavioral skills in order to enhance caregiver-child attachment. These skills include increasing "Do Skills," such as providing labeled praise for specific child behaviors, describing what they are doing in play, and reflecting what they say. During the second phase, Parent-Directed Interaction (PDI), parents learn to implement effective limit-seeting skills in order to increase child compliance to caregivers.

B. Coaching in PCIT

During PCIT, parents receive in-vivo coaching from therapists through a bug-in-the-ear microphone while parents practice implementing the behavioral skills that they are learning during treatment. Coaching has been considered to be the primary mechanism of change in PCIT, and specific coaching styes have been associated with treatment gains (Barnett et al., 2017; Borrego & Urquiza, 1998; Green Rosas et al., 2022; Heymann et al., 2021). Barnett et al., (2014) describe two styles of coaching that therapists engage in during PCIT: directive coaching and responsive coaching. Directive coaching typically comes before a parent verbalization and instructs a parent on what to say or do through either a command (e.g., "go

ahead and praise him for sharing"), modeling (e.g., "thank you so much for sharing"), or prompting (e.g., "thank you for..."). Responsive coaching typically comes after a parent verbalization and provides immediate feedback on parent's verbalizations or actions through either a praise (e.g., "excellent direct command"), a reflective description (e.g., "that was an indirect command"), or a process comment (e.g., "your direct commands make it easier for him to understand what he needs to do") (Barnett et al., 2014). While directive coaching is important in the initial stages of treatment in order to engage parents in skill use, responsive coaching as opposed to directive coaching has been found to be associated with treatment engagement and improved outcomes (Barnett et al., 2017; Heymann et al., 2021; Green Rosas et al., 2022). However, questions remain given that it is not clear whether higher responsive coaching predicts better outcomes due to the style of coaching itself, or given that families who demonstrate higher skill levels during treatment allow for higher levels of responsive coaching to be used during sessions. Further research is needed that can disentangle how therapists and parents impact each other's behaviors during PCIT coaching.

C. PCIT & Spanish-Speaking Families

Past research has found differences in English- and Spanish-speaking therapist coaching during PCIT (Heymann et al., 2021; Green Rosas et al., 2022). Heymann et al., (2021) reported less use of responsive coaching statements and more commands given by Spanish-speaking therapists delivering a form of PCIT for infants, the Infant Behavior Program (IBP), in comparison to English-speaking therapists. They also found that responsive coaching statements used by both English- and Spanish-speaking therapists had a positive impact on parenting skill acquisition (2021). Green Rosas et al. (2022) found that Spanish-

speaking therapists used higher rates of both directive and responsive coaching, and that Spanish-speaking caregivers used significantly more verbalizations than English-speaking therapists and caregivers during two previous PCIT trials for culturally diverse families. Consistent with studies with only English coaching, responsive coaching was also found to predict treatment completion, while directive coaching was not (Green Rosas et al., 2022).

D. Current Study

It is crucial that we examine the effective methods of better engaging and ensuring proper outcomes for diverse families in treatment. The present study examines in-vivo coaching, which is one of the primary mechanisms of change in the evidence-based treatment for young children, PCIT. Past evidence finds that English- and Spanish-speaking therapists indeed demonstrate differences in their use of directive and responsive coaching, and that coaching statements impacted outcomes for both English- and Spanish-speaking families similarly (Heymann et al., 2021; Green Rosas et al., 2022). The current study will build upon previous findings using a mixed methods approach, in order to examine how English- and Spanish-speaking therapist and parent behaviors bidirectionally influence each other in sessions with English and Spanish-speaking families. In this QUAN + qual study, therapist quantitative data focused on specific coaching techniques in session, and qualitative data focused on therapist experiences while working with English and Spanish-speaking families. These data will be combined to examine the following research questions.

E. Research Questions

1. Quantitative: How do moment-to-moment therapist and caregiver verbalizations during CDI coaching affect one another in sessions?
2. Quantitative: Are there differences in how therapist and caregiver verbalizations affect one another for sessions conducted in English and sessions conducted in Spanish?
3. Qualitative: Do qualitative findings from Spanish-speaking therapists and trainers inform coaching differences with Spanish-speaking families?

II. Extensive Literature Review

A. Child Behavior Problems

Childhood behavioral problems have been found to be costly to not only the individual and their family, but to society at large (Rissanen et al., 2022). Along with long-term financial and emotional burdens, behavioral problems have been shown to persist if left untreated and evolve to later psychopathology, as well as academic impairments (Murray et al., 2015; van Lier et al., 2012). Extensive literature has supported the efficacy of behavioral parent training programs (BPTs), such as PCIT, in addressing childhood behavioral problems (Kaminski & Claussen, 2017; Kaminski & Claussen, 2017; Leijten et al., 2019). PCIT is currently regarded as a best practice treatment, and families who have participated in PCIT have found to keep treatment gains up to 3-6 years after treatment completion (Hood & Eyberg, 2003).

B. PCIT Structure

PCIT is unique from other BPTs in that it uses in-vivo coaching as a major component of treatment, which allows caregivers to get real-time feedback from their therapist while they interact with their child. A typical PCIT session involves therapists coaching caregivers via a bluetooth microphone as they implement parenting skills ("Do-Skills") that are taught in treatment (Eyberg et al., 2001). Through coaching, caregivers practice and strengthen the behavioral skills taught by their clinician while they interact and strengthen their relationship with their child during different play situations. During both phases of treatment, caregivers are guided by therapists during coaching sessions as caregivers

practice implementing parenting skills with their children, and it has been widely understood that coaching is one of the primary mechanisms of change in PCIT (McNeil & Hembree-Kigin, 2010). While it is clear that coaching is the bread and butter of this intervention, not all forms of coaching may be equally effective in producing treatment gains for clients, including acquiring caregiver skills and keeping clients engaged (Barnett et al., 2017; Green Rosas et al., 2022; Heymann et al., 2021).

C. Coaching Styles

It is important to understand the types of coaching statements that lead to improved outcomes for caregivers and children. The Therapist Parent Interaction Coding System (TPICS; Barnett, Niec, & Peer, 2013) is a validated coding system that separates therapist coaching verbalizations into two distinct categories: directive coaching and responsive coaching. Directive coaching techniques happen before caregiver verbalizations and direct a caregiver to use specific skills. Examples of these include Direct Commands (DC; e.g., "praise her for sharing"), Indirect Commands (IC; e.g., "how about praising her here?"), Prompting (PR; e.g., "thank you for…."), and Modeling (MO; e.g., "Thank you for sharing!"). Responsive coaching typically happens after a caregiver's verbalization and is in response to what the caregiver said. Examples of responsive coaching include Labeled Praises of the skills used (LP; e.g., "great labeled praise"), Reflective Descriptions (RD; e.g., "that was an unlabeled praise"), and Process Comments, which connect a child's behaviors with the caregivers (PC; e.g., "those behavior descriptions are helping him focus"). Past literature demonstrates that different styles of coaching are associated with different client outcomes (Barnett, Niec, & Peer, 2013). For example, it's been found that responsive coaching statements, like praising a caregiver for using a skill, mediated parental skill

acquisition between one session and the next, while the use of directive coaching statement, like telling a caregiver to use a specific skill, did not (Barnett, Niec, & Acevedo-Polakovich, 2013). Using the TPICS, Barnett et al. (2017) found that that therapist coaching not only impacted skill acquisition between sessions, but that it was also associated with treatment drop out, in that therapists seeing families who dropped out of treatment were more likely to use fewer responsive techniques and more drills. This second study was conducted with a predominately Latine, but English-speaking population. More recent studies with Spanish-speaking and English-speaking families support these findings (Green Rosas et al., 2022; Heymann et al., 2021).

D. PCIT and Diverse Families

While most of the evidence-base for PCIT has been developed with data from Non-Hispanic White families, past research has also demonstrated PCIT's effectiveness in treating behavioral problems for young children from diverse backgrounds (Fernandez et al., 2011; Gresl et al., 2012; Leung et al., 2008). Additionally, feasible treatment adaptations have been developed to enhance cultural responsiveness in treatment. For example, a culturally modified version of PCIT called Guiando a Niños Activos (GANA) found promising results in treating behavioral problems in Mexican American children (McCabe et al., 2005). Most recently, a treatment framework aimed at facilitating culturally congruent treatment adaptations for Asian American, African American, and Hispanic families called PersIn has been developed and tested, demonstrating statistically and clinically significant changes in child and parent outcomes (Yeh et al., 2022). It is important to note that core components of treatment, like therapist coaching, are consistently maintained in all previous culturally adapted versions of PCIT.

E. Spanish Provision of Therapy

PCIT was developed in English and most of the evidence-base available examining its efficacy is with English speaking families. Significant differences have been found in the type of coaching used between English and Spanish-speaking therapists (Green Rosas et al., 2022; Heymann et al., 2022). For example, Green Rosas et al. (2022) found that Spanish-speaking therapists used significantly higher levels of directive, responsive, and neutral verbalizations in comparison to English speaking therapists. In a sample of therapists conducting PCIT treatment for infants (the Infant Behavior Program), Heymann et al. (2021) found that Spanish-speaking therapists used higher levels of commands (a directive statement), but lower levels of responsive coaching statements. However, no studies to date have examined how therapists' and caregivers' moment-to-moment interactions affect one another during coaching. There are many possible explanations for therapists using different coaching styles with Spanish-speaking families. For example, parents may be less familiar with these skills and therefore require more directive coaching to initiate a "Do Skill." Indeed, previous research has found that Spanish-speaking families differ in their utilization of PCIT skills, with Spanish-speaking families using more questions and commands in comparison to English-speaking families (Ramos et al., 2018). It is crucial that coaching in Spanish be further examined given that Latine families may experience higher levels of barriers to engagement, including a lack of treatment providers who can provide quality services in their native language. Furthermore, lacking literature examining Spanish-language treatment delivery leaves us with fewer available resources to inform proper training of Spanish-speaking therapists.

Given that coaching is a primary component of PCIT, and coaching styles have been found to be associated with skill acquisition, it is of particular interest to examine moment-to-moment interactions during sessions conducted in English and in Spanish in order to better understand the mechanisms of change for Spanish-speaking and bilingual families. It is crucial that efforts be made to support the delivery of effective and high-quality treatment for Spanish-speaking children and families by better understanding how therapist and parent interactions affect one another during parent coaching. Findings from this study can help inform strategies to enhance treatment outcomes for Spanish-speaking families in order to decrease inequities in access to high quality, culturally congruent treatment.

III. Methods

A. Data Set

1. Quantitative Data

The data set consists of video recordings and parent-report measures of participants from two previous PCIT studies. The first study was a pilot clinical trial comparing a culturally adapted version of PCIT called Guiando a Niños Activos (GANA) to standard PCIT and Treatment as Usual for young Mexican American children with behavior problems. We examined data from subjects assigned to either the GANA or PCIT conditions (n=40). The second study was a feasibility trial evaluating a personalized version of PCIT for culturally diverse families (PersIn). This trial included 32 families from four different ethnic groups (African American, Asian American, Latine, and Non-Hispanic White [NHW]).

2. Qualitative Data

Semi-structured interviews were conducted with Spanish-speaking PCIT therapists in order to examine Spanish-speaking therapists' experiences coaching Spanish-speaking and bilingual parents during PCIT.

B. Eligibility

1. Eligibility for GANA Study

Families were screened for eligibility for the study by phone, and were determined to be eligible if they identified their child as (1) Mexican American, (2) between the ages of 3 and 7, (3) without a diagnosis of autism, intellectual disability, or psychosis (4) not participating simultaneously in any other psychosocial treatment for the child's behavior problems, and (5) with clinically significant behavior problems as measured by caregiver report on the Eyberg Child Behavior Inventory Intensity Scale (ECBI; Eyberg & Pincus, 1992), a standardized measure of child behavior problems.

2. Eligibility for PersIn Study

Families were screened for eligibility for the study by phone, and were determined to be eligible if they identified their child as (1) Latine (a), African American, Asian American, and/or Non-Hispanic White (2) age 2-7, (3) above the clinical cut-point on the ECBI, and (4) not participating in any other psychosocial treatment simultaneously for child behavior problems (e.g., group, parent training courses). Caregivers were also required to be able to speak either English or Spanish.

C. Participants

1. Caregiver-Child Dyads from GANA Study

All primary caregivers were female (M = 32.2 years). Seventy-one percent of children were male and 29% were female (M = 52.8 months). Seventy-five percent of dyads were Spanish-speaking (n = 15).

2. Caregiver-Child Dyads from PersIn Study

Eighty-four percent of families (n = 27) identified their child as belonging to one ethnic group: 19% as Asian American (n = 6), 12% as African American, 28% as Latine (n = 9), and 25% as Non-Hispanic White (n = 8). Sixteen percent of families (n = 5) identified their child as belonging to multiple ethnic groups. Three percent of families were Spanish-speaking.

3. Bilingual Therapists

Five bilingual therapists who had provided PCIT in Spanish within the past six months and five bilingual supervisors/trainers who have trained and consulted with bilingual therapists were recruited to participate in semi-structured interviews to discuss their experiences providing PCIT services in English and in Spanish. Participants were all female and predominantly Latinx/Hispanic (90%). Participants were also predominately Master's level therapists and supervisors with degrees in Social Work or Marriage and Family Therapy (70%).

D. Procedure

1. GANA Study Procedure

Eligible families were invited to complete a 3-4 hour in-person assessment where they completed informed consent forms, a clinical interview, and a variety of clinical outcomes measures. Families were then randomly assigned to either receive regular PCIT or the culturally adapted version of PCIT, GANA. Families completed a post-treatment assessment as soon as possible after treatment termination, where all pre-treatment measures were repeated with the exception of the Demographics Questionnaire. Caregivers were paid $100 for each of the assessments.

2. PersIn Study Procedure

Eligible families were invited to complete a 3-4 hour in-person assessment where they completed informed consent forms, a clinical interview, and a variety of clinical outcomes measures. Families were then randomly assigned to either receive regular PCIT or the personalized version of PCIT, MY PCIT. As soon as possible after treatment termination, parents were invited to complete a second 2-3 hour post treatment assessment, where the ECBI and all pre-treatment measures were repeated, with the exception of the Demographics Questionnaire. Families were paid $100 for each of the assessments.

3. Current Study Procedure

Quantitative Procedure

A team of 4 research assistants were trained on the empirically validated coding systems, the TPICS (Barnett, Niec, & Peer, 2013) and the DPICS-IV (Eyberg et al., 2013). Videotapes from the GANA and PersIn studies were digitized and transcribed. Treatment video recordings of five-minute segments of the second coaching session were coded by research assistants, and a sample of 25% of tapes were double coded in order to examine

inter-rater reliability. Meetings were conducted on a weekly basis in order to discuss coding questions and to avoid coder drift.

Qualitative Procedure

Ten bilingual PCIT therapists and supervisors/trainers were recruited through email listservs. Two doctoral level students created a Qualtrics survey to obtain demographic information, as well as a qualitative semi-structured interview guide informed by previous quantitative research findings (Green Rosas et al., 2022). Bilingual PCIT therapists and supervisors completed one-hour interviews investigating therapist experiences in coaching Spanish-speaking and bilingual families in PCIT. Therapists and supervisors were compensated with a $10 Amazon gift card for completing the Qualtrics surveys and with a $40 Amazon gift card for completing the semi-structured interviews.

E. Measures

1. Therapist-Parent Interaction Coding System

The TPICS (Barnett, Niec, & Peer, 2013) is a behavioral observation coding system that assesses therapists' coaching statements and categorizes them as directive, responsive, neutral, or critical. The TPICS has been found to have excellent reliability and can predict caregivers' skill acquisition from one session to the next (Barnett, Niec, & Acevedo-Polakovich, 2013). This study used the TPICS to code therapist verbalizations, including directive (i.e., commands, modeling, and prompting) as well as responsive (i.e., praises, reflective descriptions, and process comments) in order to examine their effect on subsequent parent responses.

2. Dyadic Parent-Child Interaction Coding System

The Dyadic Parent–Child Interaction Coding System- III (DPICS-III; Eyberg, Nelson, Duke, & Boggs, 2005) is a behavioral observation coding system that was designed to assess the quality of parent–child interactions. The measure has good interrater reliability (Eyberg et al., 2005) and treatment sensitivity (e.g., McCabe & Yeh, 2009). Consistent with the PCIT protocol, this study used the following DPICS- III categories—Behavior Description (BD), Labeled Praise (LP), Unlabeled Praise (UP), Reflection (RF), Question (QU), Negative Talk (NTA), Indirect Command (IC), and Direct Command (DC)—to measure caregivers' skill use in the second CDI coaching session and determine when caregivers met the CDI mastery criteria.

3. Qualitative Measure

Semi-structured qualitative interviews were conducted with bilingual PCIT therapists in order to investigate therapist experiences coaching Spanish-speaking and English-speaking families during PCIT. Qualitative interview questions were informed by past quantitative research findings (Green Rosas et al., 2022) to investigate similarities and differences that therapists experience while coaching Spanish-speaking and English-speaking families. Examples of qualitative questions include, "Have you noticed any differences in how English-speaking and Spanish-speaking families respond to coaching?" and "What differences have you noticed in your coaching when working with Spanish-speaking as opposed to English-speaking families?"

F. Study Design and Data Analytic Plan

This study used a mixed QUAN à qual methods design. Sequential analysis was used to examine therapist and parent verbal interactions (Bakeman & Quera 1995; Chorney et al., 2010; Yoder & Tapp, 2004). Quantitative findings from sequential analysis informed

qualitative examinations of semi-structured interviews with bilingual therapists regarding therapist experiences during PCIT coaching conducted in Spanish. Rapid qualitative coding (Hamilton, 2013) was used to analyze interviews. Details regarding considerations for analyses used, as well as the analytic plan for each individual research question is outlined below.

1. Quantitative: How do moment-to-moment therapist and caregiver verbalizations during CDI coaching affect one another in sessions?

Sequential analysis was conducted on therapist and caregiver data from sessions conducted in English and in Spanish to examine how therapists' and caregivers' verbalizations during the first five minutes of CDI coaching bidirectionally influence one another (e.g., how therapists' directive versus responsive coaching influence rates of caregivers' verbalizations [skill use] and how caregivers' verbalizations influence therapists' directive versus responsive coaching). Established procedures were implemented for conducting sequential analysis, and Noldus Observer software was utilized for analyses and coding (Chorney et al., 2010; Noldus et al., 2000; Yoder & Tapp, 2004). Specifically, lag sequential analysis was conducted to obtain transitional probabilities of therapist coaching being immediately followed by a caregiver Do Skill.

2. *Quantitative: Are there differences in how therapist and caregiver verbalizations affect one another for sessions conducted in English and sessions conducted in Spanish?*

Composite scores were calculated for therapist "Responsive Coaching" and "Directive Coaching," along with parent use of "Do Skills," and "Don't Behaviors." Independent-Samples T-Tests were used to examine differences in how English-speaking and Spanish-

speaking caregivers respond to therapist coaching. For example, the use of "Do Skills" following a "Directive" or "Responsive" Statement. The same analyses were run to see the influence of a parent's skill use on the therapist verbalization.

3. *Qualitative: Do qualitative findings from Spanish-speaking therapists and trainers inform coaching differences with Spanish-speaking families?*

Qualitative analyses were conducted to address the final research question. Rapid qualitative assessment (RQA) was selected for this study's qualitative analysis given that it allows for an iterative process in which data consolidation is gathered to turn preliminary analyses around in a quick and efficient manner, while not precluding further engagement with the project's data (Hamilton, 2013). Furthermore, RQA is considered a cost- and time-efficient approach that has been demonstrated to generate similar findings in comparison to in-depth and thematic qualitative analysis (Gale et al., 2019; Taylor et al., 2018). Using this approach, common themes that emerge from interviews relating to bilingual therapist experiences coaching Spanish-speaking caregivers were identified. In order to conduct the RQA, a summary template was compiled with domains that correspond with questions from the interview guides administered with bilingual therapists. Key summary points that relate to each domain from the transcripts were extracted and then entered into a matrix. The matrix was utilized to assess for similarities and differences within domains in order to identify emerging themes.

IV. Results

A. Interrater Reliability

In order to examine interrater agreement, 25% of participant recordings were double-coded. The TPICS was used to code all therapist verbalizations. Frequencies of directive coaching statements, responsive coaching statements, neutral verbalizations, and total coaching statements (i.e., a composite of all types of coaching) were summed and interrater reliability was calculated. Interrater reliability for the therapist technique codes was 82% and was 74% for targeted parenting behaviors. The DPICS was used to code all parent verbalizations. Frequencies of Do Skills (Labeled Praises, Behavior Descriptions, and Reflections), Don't Behaviors (Questions, Commands, and Negative Talks) were summed and interrater reliability was calculated. Interrater reliability for parent verbalizations was 89%.

B. Transitional Probabilities

1. Therapist-Caregiver Transitional Probabilities: Directive Techniques

The highest transitional probability rate for directive coaching techniques was found for verbal chains including therapist use of modeling (MO). Specifically, caregiver use of a BD after therapists modeled this skill yielded a mean transitional probability rate of 54%. In other words, the probability of a caregiver using a BD after a therapist modeled said skill was found to be 54%. Transitional probabilities for other verbal chains involving MO were also higher than those involving other therapist skills. Modeling a LP yielded a 49% transitional probability rate for caregiver use of a LP and modeling a RF yielded a 43% transitional probability rate for caregiver use of a RF. Verbal chains including therapist use of DCs yielded the second highest transitional probability rate, with therapist DC of a BD to caregiver BD verbal chains yielding a rate of 29%, and therapist DC of a LP to caregiver LP verbal chains yielding a rate of 14%. However, the mean probability of caregivers using a

RF after therapists directed them to was found to be 0%. Indirect Commands (ICs) yielded the lowest overall transitional probability rates, with a therapist IC of a BD yielding a probability rate of 22%, a therapist IC of a RF yielding a probability rate of 9%, and a therapist IC of a BD yielding a probability rate of 3%. Transitional probability rates for other directive statements, including prompting, drills, and child observations were not calculated due to low frequency of use by therapists.

2. Therapist-Caregiver Transitional Probabilities: Responsive Techniques

Verbal chains including therapist use of responsive coaching techniques yielded overall lower transitional probability rates than directive techniques. In other words, it was less likely for caregivers to use a Do Skill immediately after therapists used responsive coaching than immediately after therapists used directive coaching. The mean rate for caregiver use of BDs after therapists praised parent BD skill use was 11%, and the mean rate for caregiver use of LPs after therapists praised parent LPs was 8%. Therapist UPs had lower mean percentages, with therapist UP to caregiver BD being 8%, and therapist UP to caregiver LP being 4%. The following responsive therapist coaching techniques were not analyzed due to infrequency occurrence: reflective description, and process comment.

Table 1

Transitional Probabilities: Therapist Coaching to Parent Skill

	Labeled Praise	**Behavior Description**	**Reflection**
Directive Techniques			
Modeling	0.49	0.54	0.43
Direct Command	0.14	0.29	0
Indirect Command	0.30	0.22	0.09
Responsive Techniques			
Labeled Praise	0.08	0.11	0
Unlabeled Praise	0.04	0.08	0

3. Caregiver-Therapist Transitional Probabilities: Responsive Coaching

The highest transitional probability rates were found for the use of therapist responsive coaching skills. Among these skills, therapists were most likely to provide LPs in comparison to other responsive techniques. Specifically, the probability of a therapist providing a LP after a caregiver RF was 46%, followed by a probability of 42% after caregiver use of LPs, and 34% after caregiver use of BDs. The probability of therapists providing an unlabeled praise after caregiver use of a RF, LP, or BD was much lower, at 5%, 8%, and 7%, respectively. The following therapist responsive coaching techniques were not analyzed due to infrequent occurrence: reflective descriptions and process comments.

4. Caregiver-Therapist Transitional Probabilities: Directive Coaching

Directive coaching following caregiver Do Skills was much less likely to occur. Likelihood of any therapist directive coaching statement following a caregiver Do Skill ranged from 0%-2% for modeling, direct commands, and indirect commands. Prompting and drills were not analyzed due to infrequent occurrence. These results indicate that therapists are not immediately following a caregiver Do Skill with a directive for an additional skill use.

Table 2

Caregiver to Therapist Behaviors

	Responsive Techniques		**Directive Techniques**		
	Labeled Praise	**Unlabeled Praise**	**Modeling**	**Direct Command**	**Indirect Command**
Labeled Praise	0.42	0.08	0.01	0.01	0
Behavior Description	0.34	0.07	0.01	0	0
Reflection	0.46	0.05	0	0	0.02

C. Independent Samples T-Tests

Independent-samples t-tests were run to determine if there were differences in how therapists responded to caregiver verbalizations, and vice versa, in sessions conducted in English and in Spanish (Table 3). Statistical results found that there were no significant differences in the transitional probabilities of a parent Do-Skill (p = .57) following therapist directive coaching statements. There were also no significant differences found between English-speaking and Spanish-speaking parents' Do Skills (p = .39) following therapist responsive coaching statements or therapist responsive statements following parent Do Skills (p = .23). A Welch t-test was run to determine if there were differences in therapist directive coaching following a parent Do Skill due to the assumption of homogeneity of variances being violated, as assessed by Levene's test for equality of variances (p = .003). Therapists were more likely to use directive coaching following a parent Do Skill in sessions conducted in English (M = .01, SD = .02) than in sessions conducted in Spanish (M = .00, SD = .00), a statistically significant difference, M = .01, 95% CI [.00, .02], t(39) = 2.518, p = .016.

Table 3
Transitional Probability Differences Between English-Language Sessions & Spanish-Language Sessions

	Spanish M(SD)	**English M(SD)**	**t =**	**p =**
Transitional Probabilities				
Therapist to Caregiver				
Directive to Do	.39(.21)	.34(.25)	-0.57	0.569
Responsive to Do	.06(.09)	.04(.05)	-0.07	0.389
Caregiver to Therapist				
Do to Directive	.00(.00)	.01(.02)	2.52	.016*
Do to Responsive	.23(.18)	.30(.19)	1.21	0.233

*Statistically significant

D. Rapid Qualitative Analysis Results

Ten bilingual PCIT providers (5 therapists and 5 trainers) participated in 60-minute semi-structured interviews to discuss key issues relevant to Spanish-language PCIT coaching. Themes relating to the following four general domains were examined: 1) perceived differences in therapist coaching techniques when working with Spanish-speaking caregivers, 2) differences in Spanish-speaking caregivers' responses to coaching, 3) coaching challenges when working with Spanish-speaking caregivers, and 4) coaching supports and facilitators.

1. Differences in Coaching Spanish-speaking Caregivers

PCIT providers explained the dual experience of both finding it difficult to be direct with Spanish-speaking caregivers, but also feeling that it is important to do so. For example, one provider emphasized the importance of working through potential discomfort of directiveness when working with Spanish-speaking families, especially when there is an age difference:

"You have to kind of set aside your -I don't want to say politeness- but kind of just don't be afraid to be direct with someone who is Hispanic and older than you."

Another provider also discussed feelings of countertransference that emerge coming from a Hispanic background themselves:

"When I'm working with the Spanish-speaking families, the boundaries might get a little more confused or as I am someone who grew up in a Spanish speaking household, I might have my own countertransference coming up a lot more with coaching that adds to difficulty of getting more directive."

These qualitative findings were consistent with the quantitative findings, which found no few differences in directive coaching statements and how it influenced parents. Notably,

English sessions were slightly more likely to follow the use of Do Skill with another directive statement, which is not recommended. Therefore, the hesitancy to be expressed by Spanish-speaking therapists could potentially support high quality coaching.

2. Differences in Spanish-speaking Caregiver Responses to Coaching

Providers overwhelmingly reported that Spanish-speaking families tend to be less comfortable with the skills taught in PCIT. While this was not clearly observed through quantitative analyses, providers described qualitative nuances, including perceived differences in skill comfort depending on the family's cultural upbringings. One provider describes this point:

"I've had families that have been living here for years, but they've kept their culture of being back home. And I find those to be a little more challenging because they have trouble adjusting, or they'll state that labeled praises, for example, they're not used to that. 'That's not what they were brought up with.'"

3. Coaching Challenges when Working with Spanish-speaking Caregivers

In terms of perceived challenges faced by Spanish-speaking therapists in PCIT, difficulty with finding the correct ways to describe skills and therapeutic content during coaching was a primary concern. Quantitative findings demonstrated that Spanish-speaking therapists do not significantly differ in their likelihood of reinforcing caregiver Do Skills through responsive coaching statements when compared to English-speaking therapists. However, qualitative data illuminates that providers are spending more time prepping material and coaching vocabulary when working with Spanish-speaking families. Furthermore, providers discussed the added difficulty that is experienced due to the large range in vocabulary that exists in the Spanish language depending on the country or region

that a Spanish-speaking family is from. One provider succinctly highlighted this issue, stating the following:

"Depending on the country, there are certain words that are expressed differently. And sometimes, I do struggle with finding the word to describe the concept or really explain what it is we're working on"

V. Discussion

PCIT has an extensive evidence-base demonstrating the treatment's efficacy in reducing behavior problems in young children from a diverse range of backgrounds. However, few studies have focused on examining therapist coaching behaviors, despite coaching being considered PCIT's primary mechanism of change (Borrego & Urquiza, 1998). The development of a reliable therapist-caregiver coding system has allowed for the investigation of how different therapist coaching techniques affect parent adherence and skill acquisition in treatment (Barnett et al., 2014; 2017; Green Rosas, 2021; Heymann et al., 2021). These studies have found that higher rates of responsive therapist coaching promote greater skill acquisition for caregiver, and higher likelihood of treatment adherence. However, questions remained regarding the contribution of therapist coaching on acquisition of skills when controlling for caregiver variables. For example, is it actually the case that higher rates of therapist responsive coaching promote positive treatment gains? Or are some caregivers spontaneously using more positive parenting skills, and so therapists working with those caregivers have more opportunity for responsive coaching statements? The present study provides insight into these questions by examining the bidirectional effects of moment-to-moment therapist and caregiver interactions during coaching sessions conducted early in treatment. Furthermore, no study to date has examined therapist-caregiver moment-

to-moment interactions in sessions conducted in English and sessions conducted in Spanish. The current study compared English and Spanish-language therapist and caregiver coaching interactions and obtained qualitative data from bilingual therapists and supervisors to inform quantitative findings. Results from the current study inform recommendations for future directions to improve the implementation of PCIT coaching for both English-speaking and Spanish-speaking therapist and caregiver dyads.

A. Effects of Therapist Coaching on Caregiver Skill Use

Sequential analysis results indicated that caregivers were most likely to use do-skills after directive therapist coaching. This finding coincides with qualitative data from therapist and trainer interviews in which providers emphasized the importance of providing directive coaching to caregivers, despite also feeling less comfortable doing so with Spanish-speaking families due to fear of being perceived as disrespectful. Indeed, PCIT coaching recommendations support higher use of directive coaching early in treatment while caregivers are getting used to implementing the parenting skills (McNeil & Hembree-Kigin, 2010). Comparison of English-speaking and Spanish-speaking caregiver responses to therapist coaching found no significant between-group differences, which further supports the generalization of coaching recommendations for Spanish-speaking families. Given the demonstrated effects that therapist directive coaching has on caregiver use of Do Skills, it is important that therapists work through difficulties that may compromise providers' ability to be directive with caregivers during coaching sessions.

However, not all directive coaching was found to have the same impact on the probability of parent skill use. For example, therapist use of Modeling showed the highest transitional probability rates, while other directive skills, like Direct Commands and Indirect

Commands did not promote subsequent caregiver skill use as often as Modeling. Coaching segments that were examined in the current study were taken from the second coaching session for each therapist-caregiver dyad. Therefore, a potential reason that commands were not as effective in eliciting the correct Do Skill from parents in the present sample may be due to the fact that parents are not yet fully familiar with the Do Skills that are being asked from them this early on in treatment. PCIT coaching recommendations advise that therapist directive coaching should be gradually reduced with caregivers beginning in the first coaching session to support autonomous skill use (McNeil & Hembree-Kigin, 2010). However, reducing modeling coaching statements may be challenging for therapists given that they are often reinforced by caregiver immediate subsequent skill use while caregivers were found to be less likely to follow a therapist command with the correct Do Skill in comparison to when therapists line-feed caregivers through modeling statements. Therefore, it is crucial that PCIT providers receive support on how to most effectively scaffold the substitution of modeling with other coaching techniques that promote caregiver's increased autonomous skill use.

B. Effects of Caregiver Skill Use on Therapist Coaching

Results indicated that therapists were more likely to follow a caregiver's Do Skill with a Responsive coaching statement in both sessions conducted in English as well as in sessions conducted in Spanish. These findings also align with coaching recommendations. Namely, therapists are recommended to reinforce parent skill use with Responsive coaching. Both English-speaking and Spanish-speaking therapists were found to be most likely to use Labeled Praises in comparison to other Responsive coaching statements, like Unlabeled Praises, Reflective Descriptions, or Process Comments. In fact, therapists in the current

sample were found to use Reflective Descriptions and Process Comments sparingly. The momentary sequential analyses helped illuminate previous findings related to responsive coaching being associated with skill acquisition and treatment retention (cite). Specifically, responsive coaching is related to the caregiver's skill use in session, therefore more skilled caregivers might naturally receive more reinforcement and subsequent engagement and skill change. However, there is variability at the therapist use of responsive statements, with Do Skills leading to a responsive statement between 23-30% of the time in Spanish and English respectively. Therefore, training and consultation with therapists in both languages could focus on increasing consistency in reinforcing caregiver positive skill use to improve outcomes.

Interestingly, therapist use of Directive coaching was significantly more likely to occur after the use of a caregiver Do Skill in sessions conducted in English. As discussed previously, qualitative findings described discomfort that some providers experience using Directive coaching statements with Spanish-speaking caregivers. This may explain the higher likelihood of therapists following up with a Directive coaching statement with English-speaking caregivers than with Spanish-speaking caregivers. However, previous investigations examining differences in therapist coaching between English-speaking and Spanish-speaking therapists found that Spanish-speaking therapists used higher rates of directive coaching in comparison to English-speaking therapists (Green Rosas et al., 2022; Heymann et al., 2021). This suggests that despite feelings of discomfort, therapists are in fact providing directive coaching to families, at even higher rates when compared to English-speaking therapists.

Reports from qualitative interviews also indicated that special care is given to strengthening the therapist-caregiver relationship with Spanish speaking families. This may partly inform the preference towards following Do Skills with Responsive coaching, which allows for therapist praise of caregiver skills. It should be noted that despite the likelihood of Directive coaching being higher in English-language sessions, therapists only followed caregiver Do Skills with a Directive coaching statement on rare occasions, as indicated by the low likelihood of .01%.

C. Limitations

Findings from the current project provide much needed insight into the bidirectional effects of therapist and caregiver interactions during PCIT coaching. However, there are also limitations that are worth noting. First, it is important to acknowledge that the data used for this current project is archival in nature and gathered from two previous clinical trials. While one of the trials is much more recent (McCabe et al., 2020), the other took place nearly 20 years ago (McCabe et al., 2005). Thus, there were various video recordings that were not able to be analyzed due to missing data or technological and logistical issues concerning data management. Second, while this study includes data from 49 families enrolled in PCIT, there was no available demographic information gathered for the PCIT therapists. This impedes therapist-level differences to be examined, and thus limits the generalizability of therapist coaching findings. Lastly, all Spanish-speaking families in the current study identified as Mexican American. Given that there is tremendous variability between Spanish-speaking communities from various regions, findings from Spanish-speaking Mexican-American caregivers in the current project may not necessarily generalize to Spanish-speaking families from different regional and cultural backgrounds.

D. Future Directions

Quantitative results from the current study suggest that Spanish-speaking caregivers respond similarly to therapist coaching when compared to English-speaking caregivers. This provides further support that the mechanisms of change do not differ for Spanish-speaking families. However, qualitative findings revealed that therapists notice more initial discomfort with PCIT skills when working with Spanish-speaking caregivers. This was the first study to examine and compare how English-speaking and Spanish-speaking therapists and caregivers are influencing one another through moment-to-moment interactions during PCIT coaching, in addition to gathering qualitative data on therapist perspectives and experiences when working with Spanish-speaking families. During qualitative interviews, PCIT providers raised concerns regarding the need for more translated training and clinical materials. Many providers indicated that they spend significantly more time preparing for Spanish-language sessions given that they often must search for materials, vocabulary, or ways to explain treatment concepts depending on their client's cultural background. It is crucial for further efforts to be made to provide adequate coaching supports and recommendations for providers working with Spanish-speaking communities. Additionally, further investigation regarding the ways in which Spanish-speaking caregivers from different regional backgrounds respond to therapist coaching would inform valuable training recommendations and guidance for bilingual treatment providers. Finally, future directions should examine and compare coaching interactions between therapists and caregivers from various regions to improve generalizability of findings and to best inform coaching recommendations for Spanish-speaking providers across the globe.

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