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BRIEF REPORT

Parent–Child Interaction Therapy for Mexican Americans: A Randomized Clinical Trial

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This study compared the effectiveness of a culturally modified version of Parent–Child Interaction Therapy (PCIT), called Guiando a Niños Activos (GANA), to the effectiveness of standard PCIT and Treatment as Usual (TAU) for young Mexican American children with behavior problems. Fifty-eight Mexican American families whose 3- to 7-year-old child had a clinically significant behavior problem were randomly assigned to GANA, standard PCIT, or TAU. All three treatment approaches produced significant pre–post improvement in conduct problems across a wide variety of parent-report measures. GANA produced results that were significantly superior to TAU across a wide variety of both parent report and observational indices; however, GANA and PCIT did not differ significantly from one another. PCIT was superior to TAU on two of the parent report indices and almost all of the observational indices. There were no significant differences between the three groups on treatment dropout, and families were more satisfied with both GANA and PCIT than with TAU.

Although providing high-quality, culturally sensitive mental health services to Mexican Americans (MAs) is high on the public health agenda, there is a lack of research evidence to guide the provision of that care. Insufficient representation of Latinos in efficacy trials has resulted in a lack of data to support the effectiveness of evidence-based treatments (EBTs) for Latinos (e.g., Bernal & Scharron-del-Rio, 2001). Although some have argued that the evidence base is growing for interventions with ethnic minorities in general (Huey & Polo, 2008), many believe that EBTs require significant cultural adaptation to engage and assist MA families (Castro, Barrera, & Martinez, 2004).

Although skepticism about the effectiveness of EBTs with Latino families may be warranted, denying Latino families access to EBTs is also undesirable. In a recent review, Miranda et al. (2005) reported positive outcomes for Cognitive Behavioral Therapy for anxiety disorders and Interpersonal Therapy for depression among Latino youth (Silverman, Kurtines, & Ginsburg, 1999; Treatment for Adolescents with Depression Study Team, 2004), Parent–Child Interaction Therapy (PCIT) for physically abused African American children (Chaffin et al., 2004), and the Incredible Years for externalizing behaviors among African American, Latino, and Asian American children (Reid, Webster-Stratton, &
Beauchaine, 2001). However, tests of EBTs have suffered from lower enrollment and higher dropout of minority parents (e.g., Cunningham, Boyle, & Offord, 2000).

There is also evidence for the effectiveness of EBTs that have been culturally adapted for specific ethnic groups, including Latinos. Notably, culturally modified versions of Cognitive Behavioral Therapy and Interpersonal Therapy have been found to be more effective than waitlist control conditions among depressed Puerto Rican adolescents (Rossello & Bernal, 1999). Martinez and Eddy (2005) reported positive outcomes for a culturally modified version of Parent Management Training for MA. Finally, Matos, Torres, Santiago, Jurado and Rodriguez (2006) found preliminary evidence that a culturally adapted version of PCIT had good outcomes with a small sample of Puerto Rican children with attention deficit hyperactivity disorder (ADHD). Although culturally modified versions of interventions often perform well, at least one study has found versions of the Strengthening Families Program adapted for Asian/Pacific Islanders and Latinos produced less improvement in parental skills and depression and child behavior than the standard Strengthening Families Program (Kumpfer, Alvarado, Smith, & Bellamy, 2002).

Because both standard and culturally adapted versions of EBTs have at times demonstrated effectiveness with ethnic minorities, it is difficult to determine under which circumstances cultural modifications to EBTs are neutral, beneficial, or harmful. To address this, studies must compare culturally modified versions of EBTs both to standard versions and treatment as usual or no-treatment controls. In one of the few study designs of this type, Botvin, Schinke, Epstein, Diaz, and Botvin (1995) compared a culturally focused, skills-based substance abuse prevention program to a similar, nonculturally focused program and controls and found that the two skills-based programs outperformed the control condition immediately posttreatment. The culturally focused prevention program outperformed both the nonculturally focused program and the control group at 2-year follow-up. However, more studies with similar designs are needed to determine when EBTs should be adapted.

This study compared the effectiveness of culturally adapted and standard versions of PCIT for MA families. PCIT, an EBT designed for young children with externalizing behavior problems, was chosen as an exemplar because it is an efficacious treatment for a costly, common, and treatable problem. PCIT has been found to increase parenting skills, reduce child behavior problems, and generalize benefits to untreated siblings (Eyberg & Members of the Child Study Laboratory, 1999). It has also been found to reduce repeat reports of child abuse among families referred to child welfare (Chaffin et al., 2004). Chaffin et al. found PCIT to be effective with African Americans, and Matos, Torres, Santiago, Jurado, and Rodriguez (2006) suggested that PCIT may be effective with Latinos; however, this study lacked controls and did not compare culturally modified to unmodified versions of the intervention. Butler and Eyberg (2006) thus pointed out the need for further testing of PCIT with ethnic minority families.

Drawing on a variety of both quantitative and qualitative methods, we gathered information on MA families’ preferences for their young children’s treatment and translated them into a variety of cultural modifications to PCIT. The resulting culturally modified program is called Guiando a Niños Activos (GANA), or Guiding Active Children (McCabe, Yeh, Garland, Lau, & Chavez, 2005). We then randomly assigned young MA children who presented to a local community mental health clinic with behavior problems to receive GANA, PCIT, or Treatment as Usual (TAU). We hypothesized that MA families receiving the GANA program would have lower dropout, higher father participation, better outcomes, and higher parent satisfaction with the program compared to MA families receiving standard PCIT. We also hypothesized that PCIT would outperform TAU on the same measures.

METHOD

Participants

Participants were 58 MA families of 3- to 7-year-old children with clinically significant behavior problems seen for treatment at a community mental health clinic. Families were eligible if (a) a parent identified the child as MA and between the ages of 3 and 7, (b) the child received a score above the clinical cutpoint on the Intensity Scale of the Eyberg Child Behavior Inventory (ECBI: Eyberg & Pincus, 1999), and (c) neither parent nor child was participating in any other psychosocial treatment targeting the child’s behavior problems simultaneously. Of the 103 families screened by telephone, 31% (n = 32) did not meet inclusion criteria, 11% (n = 11) declined, and 2% (n = 2) could not participate because of logistical reasons. The remaining 58 families (82% of those screened and eligible) enrolled in the study and completed pretreatment assessments. Seventy-six percent of families (n = 44) attended five or more sessions, and 57% (n = 33) completed the full course of treatment. Ninety-three percent (n = 54) completed posttreatment assessments.

Sample demographics can be found in Table 1. Respondents were female primary caregivers (92% biological mothers, 3% grandmothers, 2% aunts, and 2% other). Male primary caregivers participated in at
least one therapy session in 40% (n = 23) of the cases. Average ages were 32.2 years (SD = 8.1 years) and 35.0 years (SD = 10.3) for female and male primary caregivers, respectively.

Procedures

The procedures of the study were approved by all relevant Institutional Review Boards. Families determined eligible by phone attended a 3- to 4-hr pretreatment assessment where parents provided written informed consent and were then randomly assigned to GANA (n = 21), PCIT (n = 19), or TAU (n = 18). Assessors and families were blind to assignment. All families were recontacted immediately following treatment termination to complete a second blinded 2- to 3-hr assessment, for which they were paid $100.00.

Measures

The telephone screening included a demographic questionnaire and the ECBI, a 36-item parent report measure of disruptive behavior with evidence to support its reliability and validity for both English and Spanish versions (Eyberg & Pincus, 1999; García-Tornel et al., 1998). The ECBI has two subscales: the Intensity Scale (α = .86), which reflects frequency of disruptive behaviors, and the Problem Scale (α = .80), which reflects the number of behaviors parents perceive as a problem. ECBI was readministered at posttest.

Eligible Families completed the Dyadic Parent Child Interaction Coding System (DPICS), Child Behavior Checklist (CBCL), Early Childhood Inventory, the Parenting Practices Scale, and the Parenting Stress Index at pre- and posttest. The DPICS (Eyberg, Nelson, Duke, & Boggs, 2004) is a behavioral observation coding system that measures the quality of parent–child social interaction during three 5-min standard situations that vary in the degree of parental control (i.e., child-led play, parent-led play, and clean-up). Categories coded were Unlabeled Praise, Labeled Praise, Reflections, Behavioral Descriptions, and Negative Talk, Direct Command—No Opportunity for Compliance, Direct Command—Compliance, Direct Command—Noncompliance, Indirect Command—No Opportunity for Compliance, Indirect Command with Compliance, and Indirect Command—Noncompliance. Pretreatment kappa coefficients ranged from .59 to .85. Trained coders were blind to treatment condition.

The CBCL (Achenbach & Rescorla, 2000, 2001) is a standardized measure of child symptomatology with evidence supporting its reliability and validity for both the English and Spanish versions. This study examined the Externalizing Problems Scale (α = .91 for the Preschool version (3–5 years old) and .94 for the School Age version (6–7 years old). The Early Childhood Inventory (Gadow & Sprafkin, 1997) assesses symptoms of ADHD (α = .90), oppositional defiant disorder (α = .89), and conduct disorder (α = .93). The Parenting Practices Scale (Strayhorn & Weidman, 1988) assesses positive parenting behaviors (α = .75). The Parenting Stress Index (Abidin, 1995) consists of a Parent Distress Scale (α = .85), the Parent Child Dysfunctional Interaction Scale (α = .82), and the Difficult Child Scale (α = .84). A Spanish version with support for its reliability and validity is available (Solis & Abidin, 1991).

Treatments

Parents were randomly assigned to one of three conditions: The first condition was PCIT, in which parents are taught skills to establish a nurturing and secure relationship with their child while increasing their child’s prosocial behavior and decreasing negative behavior. Therapists actively coach parents and terminate when parents demonstrate mastery of the skills and their child’s behavior is within half a standard deviation of the normative mean on the ECBI Intensity Scale.

The first condition was GANA, which retained the core features of PCIT but modified its delivery to optimize cultural fit for MA families (McCabe et al., 2005). The GANA program involved tailoring the delivery of the program based on a cultural assessment of the family. Cultural concepts were referenced throughout treatment so that the program could be presented in ways that were congruent with the parents’ belief system. Other adaptations to the program included (a) framing program as an educational/skill building; (b) increasing orientation to therapy; (c) increasing session time for rapport building; (d) translating, simplifying, and adding representations of MA families in written handouts; and (e) implementing an engagement protocol based on McKay, Stoewe, McCadam, and Gonzalez’s (1998) approach.
In the third condition, TAU families were assigned to therapists without training in PCIT at the same clinic. The three TAU therapists described their orientations as “person-centered cognitive behavioral,” “trauma focused cognitive behavioral,” and “family systems” and were allowed complete freedom in the approaches they used. Therapists were allowed an unlimited number of sessions in all three conditions.

For PCIT and GANA, integrity was coded from session videotapes. Detailed session checklists are included in the PCIT treatment manual (Eyberg and Members of the Child Study Laboratory, 1999), and 82% of items were present. For GANA, PCIT outlines were expanded, and 77% of the items were checked. Interrater agreement for a 25% random sample of GANA and PCIT tapes was 85%.

Therapists were bilingual practicum students from M.S.W. and professional psychology doctoral programs. PCIT and GANA therapists were provided with 40 hr of training on their respective approach by the principal investigator, who was also responsible for supervising both conditions. Therapists in the TAU condition were supervised by either an L.C.S.W.- or a Ph.D.-level clinical psychologist employed by the community mental health clinic. All therapists had 1 hr of face-to-face individual supervision per week.

RESULTS AND DISCUSSION

All results reflect intent-to-treat analyses (Higgins & Green, 2008). We compared treatment dropouts to completers on pretreatment characteristics and found no differences except for higher PPQ scores among treatment dropouts, \( t(56) = -2.11, p < .05 \), which was nonsignificant after a Bonferroni correction. Treatment conditions were also compared on demographics and attrition. The three conditions did not differ significantly on any demographic variable (Table 1), number of sessions attended (PCIT \( M = 13.42, SD = 8.03; \) GANA \( M = 13.90, SD = 7.99; \) TAU \( M = 10.94, SD = 10.01 \)), \( F(2, 57) = 62, p = .54 \), or attrition, \( \chi^2(2, N = 58) = 2.17, p = .34 \), with dropout rates of 43% for GANA, 32% for PCIT, and 56% for TAU.

We then calculated effect sizes to determine the size of the pre–post treatment gains for each of the three conditions. Cohen’s \( d \) for each treatment condition and each dependent variable are summarized in Table 2. We also conducted single degree of freedom contrast to compare the effectiveness of the three treatment conditions on each of the parent reported outcome measures at Time 2, controlling for the same outcome measure at Time 1 (see Table 2). Comparisons revealed that, across all parent-report measures, GANA produced significantly greater symptom reduction than TAU. Standard PCIT also produced greater symptom reduction than TAU on CBCL Externalizing Problems and Parenting Stress Index Total Stress. In no case were GANA and PCIT significantly different from each other.

Next, we examined the observational data from the DPICS (Table 3). Across a variety of observational indices, families who were assigned to GANA or standard PCIT were higher on labeled praise, reflection of child speech, and description of child behaviors, and lower on questions, commands, and criticisms than families who were assigned to TAU. This held across

<table>
<thead>
<tr>
<th>Variable</th>
<th>GANA M</th>
<th>SD</th>
<th>Cohen’s d</th>
<th>PCIT M</th>
<th>SD</th>
<th>Cohen’s d</th>
<th>TAU M</th>
<th>SD</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECBI Intensity</td>
<td>84.30</td>
<td>34.40</td>
<td>3.38</td>
<td>95.44</td>
<td>45.20</td>
<td>2.14</td>
<td>118.50</td>
<td>48.34</td>
<td>1.78</td>
</tr>
<tr>
<td>ECBI Problem</td>
<td>7.35</td>
<td>9.86</td>
<td>2.84</td>
<td>11.72</td>
<td>11.06</td>
<td>1.96</td>
<td>15.38</td>
<td>8.98</td>
<td>1.78</td>
</tr>
<tr>
<td>ODD Symp.</td>
<td>5.00</td>
<td>5.80</td>
<td>1.91</td>
<td>5.72</td>
<td>5.17</td>
<td>1.01</td>
<td>7.38</td>
<td>5.71</td>
<td>.88</td>
</tr>
<tr>
<td>CD Symp.</td>
<td>3.00</td>
<td>4.59</td>
<td>1.81</td>
<td>4.67</td>
<td>4.68</td>
<td>0.79</td>
<td>6.56</td>
<td>6.57</td>
<td>.72</td>
</tr>
<tr>
<td>ADHD Symp.</td>
<td>13.50</td>
<td>10.27</td>
<td>1.77</td>
<td>15.78</td>
<td>10.25</td>
<td>0.99</td>
<td>23.13</td>
<td>12.74</td>
<td>.60</td>
</tr>
<tr>
<td>CBCL Extern.</td>
<td>45.83</td>
<td>11.28</td>
<td>1.97</td>
<td>48.82</td>
<td>13.31</td>
<td>1.03</td>
<td>58.73</td>
<td>11.62</td>
<td>.83</td>
</tr>
<tr>
<td>Parent Practice</td>
<td>156.00</td>
<td>15.84</td>
<td>1.68</td>
<td>148.50</td>
<td>19.90</td>
<td>1.03</td>
<td>141.13</td>
<td>17.04</td>
<td>.99</td>
</tr>
<tr>
<td>Parent Distress</td>
<td>18.53</td>
<td>6.38</td>
<td>1.57</td>
<td>23.06</td>
<td>7.54</td>
<td>0.85</td>
<td>28.33</td>
<td>9.83</td>
<td>.58</td>
</tr>
<tr>
<td>Dysfunc. Inter.</td>
<td>17.12</td>
<td>5.37</td>
<td>1.01</td>
<td>18.39</td>
<td>7.56</td>
<td>0.54</td>
<td>26.33</td>
<td>11.00</td>
<td>.07</td>
</tr>
<tr>
<td>Difficult Child</td>
<td>21.65</td>
<td>10.17</td>
<td>2.31</td>
<td>25.33</td>
<td>11.10</td>
<td>1.10</td>
<td>31.47</td>
<td>10.32</td>
<td>.93</td>
</tr>
<tr>
<td>PSI Total Stress</td>
<td>58.42</td>
<td>19.03</td>
<td>1.99</td>
<td>66.78</td>
<td>22.21</td>
<td>1.04</td>
<td>86.13</td>
<td>28.12</td>
<td>.57</td>
</tr>
</tbody>
</table>

Note. Means with the same subscript were not significantly different from one another. Means with different subscripts were significantly different from one another. GANA = Guiando a Niños Activos; PCIT = Parent–Child Interaction Therapy; TAU = Treatment as Usual; ECBI = Eyberg Child Behavior Inventory; ODD = oppositional defiant disorder; CD = conduct disorder; ADHD = attention deficit hyperactivity disorder; CBCL = Child Behavior Checklist; Extern. = Externalizing; Dysfunc. Inter. = Dysfunctional Interaction; PSI = Parenting Stress Index.
the DPICS child-led play, parent-led play, and clean-up situations. GANA and PCIT did not differ significantly.

An analysis of variance revealed that fathers participated in an average of 5.10 ($SD = 5.83$) sessions in the GANA condition, 2.79 ($SD = 6.53$) sessions in the PCIT condition, and .28 ($SD = .57$) sessions in the TAU condition. Post hoc Tukey analyses revealed that fathers were significantly more likely to participate in the GANA condition relative to TAU ($p < .05$), but that PCIT did not differ significantly from either GANA or TAU. Post hoc Tukey analyses also revealed that parents were significantly more satisfied with both GANA ($M = 44.5, SD = 6.4; p < .05$) and PCIT ($M = 46.4, SD = 4.83; p < .01$) than with TAU ($M = 38.8, SD = 8.63$). The difference between GANA and PCIT was not statistically significant.

The findings just presented indicate that all three treatment approaches produced significant parent-reported improvement among young MA children with behavior problems. In the case of GANA and PCIT, families were below the normative mean for behavior problems on both the ECBI Intensity Scale and CBCL Externalizing Scale by the end of treatment, and TAU families were below the clinical cutoffs. In addition, the effect sizes for GANA and PCIT were consistently large across parent report and observational measures, whereas TAU produced large effect sizes on parent report but not observational measures.

Compared to findings from other trials of PCIT, our sample began with slightly higher scores on the ECBI Intensity Scale and reported substantially lower scores posttreatment. For example, Schuermann, Foote, Eyberg, Boggs, and Algina (1998) reported average ECBI Intensity Scale scores of 170.3 ($SD = 26.4$) pretreatment and 117.6 ($SD = 40.4$) at posttreatment. Thus, all three treatment approaches produced improvement that was similar or superior to published trials of PCIT on parent-report measures. However, only GANA and PCIT produced clinically significant changes on observational indices of parent behavior.

Although outcomes were comparable, PCIT and GANA families reported a higher number of sessions to complete treatment (18.7 and 18.0 sessions, respectively) than the 14-session average in past trials of PCIT. Matos et al. (2006) also found that additional treatment time was necessary when applying PCIT to Puerto Rican families with ADHD. It is possible that Latino families take longer to complete treatment because of cultural norms that value personalismo over time efficiency. Fernandez and Eyberg (2004) also reported that African American families in PCIT required more sessions than Caucasian families, possibly because of either difficulty “buying into” culturally unfamiliar techniques or the requirement of more practice to master unfamiliar techniques.

When treatments were compared, separate patterns emerged across parent report and observational data. By parent report, GANA was superior to TAU in reducing externalizing behaviors, ADHD symptoms, and parenting stress. Across measures, PCIT was intermediate between GANA and TAU, but PCIT and TAU differed significantly only for externalizing problems and total parenting stress. GANA and PCIT did not differ from each other. On the observational measures, however, both GANA and PCIT were significantly superior to TAU across a wide variety of indices but did not differ from each other. These data confirm that GANA and PCIT are both effective in improving parenting behaviors. However, it is difficult to reconcile the apparent lack of change in parent behavior among the TAU families and their self-reported symptom improvement. It is possible that TAU treatments
worked through mechanisms other than the observed parenting behaviors or that social desirability or the placebo effect led to overreporting of symptom improvement on the self-report measures.

Contrary to hypothesis, conditions did not differ on dropout. Attrition in GANA and PCIT were comparable to other clinical trials of PCIT using the same stringent definition of full program completion. For example, Schuhmann et al. (1998) reported a dropout rate of 41% in their trial of PCIT using this definition. This suggests that MA families can be retained in PCIT as well as Non-Hispanic White (NHW) families, an encouraging finding given concerns that EBTs may not be engaging to Latinos. Our finding that GANA was not able to retain families better than standard PCIT was unexpected in view of the extensive efforts to engage families. This may be because the PCIT manual already outlines very specific engagement techniques, which appear to be sufficient. However, the engagement techniques used in GANA were successful in involving more fathers in treatment relative to TAU, although GANA did not differ significantly from PCIT in that respect.

Another area in which we expected to see an advantage for the cultural modifications was in parental satisfaction with treatment. However, this hypothesis was not supported, as both GANA and PCIT were superior to TAU but not significantly different from one another. Satisfaction was high across all three treatment modalities but quite near the ceiling for both GANA and PCIT, suggesting that both of these treatments were very well received by MA families.

Study findings are limited by the small sample. Further, both the GANA and PCIT conditions shared a supervisor, and a small number of therapists were involved in treating the study families. Finally, all therapists in the study were bilingual and either bicultural or highly familiar with MA culture. Although findings have been mixed, several studies have found that therapist–client ethnic match is associated with better treatment retention and outcomes for Mexican American youth (e.g., Flicker, Waldron, Turner, Brody, & Hops, 2008). Thus, all three treatments may have been more culturally sensitive than what families would receive from unmatched therapists.

**Implications for Research, Policy, and Practice**

In conclusion, it appears that PCIT is robust to cultural modifications that are derived by a process that combines input from families, therapists, and treatment developers. It also appears that PCIT can be a highly effective and appealing intervention for MA families even without cultural modifications.

**REFERENCES**


