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Parent-Child Interactions Among Low-Income Mexican American Parents and Preschoolers: Do Clinic-Referred Families Differ From Nonreferred Families?

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Abstract

This study compared low-income Mexican American parents of young children referred for behavior problems to their nonreferred counterparts on an observational measure of parent-child interactions. Referred Mexican American parents demonstrated more negative behaviors than their nonreferred counterparts in both nondirective and highly directive situations. However, no differences were found at moderate levels of directiveness. The most and least directive situations in the Dyadic Parent-Child Interaction Coding System best differentiated referred from nonreferred Mexican American families, and families differed more in their negative behaviors than positive behaviors. Many of the parenting behaviors that have been found to differ between referred and nonreferred Caucasian families were also observed to differ between their Mexican American counterparts.

Latinos are currently the largest and fastest growing ethnic minority group in the U.S., at 14.5% of the population and with a population increase greater than 50% since 1990 (U.S. Census Bureau, 2005). Because this rapidly growing population of Latino youth has rates of mental health problems that are as high, if not higher, than those of Caucasian youth (e.g., Glover, Pumariega, Holzer, Wise, & Rodriguez, 1999; Shaffer et al., 1996; Vazsonyi & Flannery, 1997), and because Latino youth are less likely to receive high-quality mental health care (e.g., McCabe et al., 1999), researchers have called for the development of culturally appropriate mental health services for Latinos (U.S. Department of Health and Human Services, 2001). Developing culturally appropriate mental health services for Mexican Americans is a particular

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public health priority because Mexican Americans are the largest subgroup of Latinos, representing 9.3% of the Latino population (U.S. Census Bureau, 2005).

Because studies document higher rates of delinquency among Latino adolescents compared with Caucasian adolescents, externalizing disorders in young Latino children are a particularly important target for culturally effective treatments (Achenbach et al., 1990; Vazsonyi & Flannery, 1997). Externalizing problems often begin as early as the preschool years, making interventions that target the youngest children crucial (Butler & Eyberg, 2006; Patterson, Dishion, & Chamberlain, 1993). Among Caucasian populations, behavior problems that begin in preschool can be quite stable and are strong predictors of later delinquency (Campbell, 1995; Kazdin, 1995; Shaw et al., 1998; Webster-Stratton & Taylor, 2001). Children with externalizing disorders are also at greater risk for academic problems, which is a particular concern for Mexican Americans who have a high rate of school dropout (U.S. Department of Education, 2000). Furthermore, the preschool years are a critical time to provide intervention for externalizing disorders, because treatment success rates decrease as children grow older (Dishion & Patterson, 1992; Nixon, Sweeney, Erickson & Touyz, 2004).

Unfortunately, despite the large number of Latino youth with externalizing disorders, most efficacious interventions have been designed for and tested with largely Caucasian samples (Eyberg, Nelson, & Boggs, 2008). Huey and Polo (2008) recently reviewed the evidence base for interventions with ethnic minority youth and found that, while an evidence base is evolving, no interventions meet the American Psychological Association's criteria for a "well-established" intervention for Latino preschoolers with externalizing behaviors (although two treatments meet criteria for "probably efficacious" for the older end of the preschool years: Garza & Bratton, 2005; Szapocznik et al., 1989). Although there is excellent evidence that a number of behaviorally based interventions, including Parent Management Training Oregon (Patterson, 2005), The Incredible Years (Webster-Stratton, 2000), and Parent Child Interaction Therapy (Eyberg, Boggs, & Algina, 1995), can produce impressive outcomes with young Caucasian children, the extent to which these evidence-based treatments (EBTs) work with members of other cultural groups is less well known. Thus, researchers have begun to focus attention on the cultural sensitivity of EBTs and their adaptation for use with ethnic minority youth. To date, several programs have reported promising outcomes with culturally adapted versions of parenting programs for Mexican American youth with behavior problems (Martinez & Eddy, 2005; Matos, Torres, Santiago, Jurado, & Rodriguez, 2006; McCabe & Yeh, in press). However, to systematically increase the cultural sensitivity of EBTs, a thorough examination of the cross-cultural generalizability of the risk factors targeted by the interventions and the techniques used to effect change should be made.

The majority of EBTs for externalizing problems in preschoolers share several important features. First, parents are trained to change behaviors that may have been maintaining or exacerbating child behavior problems (Bagner & Eyberg, 2007; Nixon et al., 2003). Second, the parent behaviors targeted for change have been identified through basic observational research that, guided by theories of parenting (e.g., Baumrind, 1967; Patterson, 1982), compare parents of children with behavior problems to parents of children without behavior problems. Further research has demonstrated that changes in these parent behaviors at least partially mediate treatment effects on children (Bagner & Eyberg, 2007). For example, parents of children with externalizing problems have been found to use a great deal of criticism when interacting with their children and to use very little praise (Webster-Stratton, 1985). Coaching parents to ignore minor misbehavior (reducing criticism) and increase positive attention have been shown to improve child behavior (Eyberg, 1992). However, because basic observational research has not been conducted with referred and nonreferred Mexican American parents, the extent to which the parenting behaviors that are targeted for change are also associated with behavior problems among Mexican Americans is unknown.

The generalizability of basic observational research on parent behavior to Latinos is an important issue because parenting has been found to differ significantly across cultural groups (Calzada & Eyberg, 2002). Although less is known about the specific child-rearing practices of Latino parents, existing studies suggest that Latino parents may differ in their values from mainstream American parents in a number of ways (Zayas & Solari, 1994). For example, Latino cultures place a high value on family closeness and interconnectedness or *familismo*, respect, and obedience to authority (Fontes, 2002). The authoritarian parenting style is also more prevalent among Latino families, which emphasizes obedience and family loyalty, in contrast to Caucasian parents who tend to value independence and assertiveness in their children (Calzada & Eyberg, 2002). Latino parents have been reported to be more likely than Caucasian parents to use direct demands, physical punishment such as spanking, and criticism (MacPhee, Fritz, & Miller-Heyl, 1996). Given these differences in parenting across Latino and Caucasian cultures, it cannot be assumed that parenting styles that produce, maintain or exacerbate child behavior problems among Caucasian youth have a similar effect on Mexican American youth. In addition, most studies of Latino parenting have relied on parental self-report data, and have often failed to include the full range of parenting behaviors of interest to interventionists.

This study used a standardized observational assessment instrument, the Dyadic Parent Child Interaction Coding System (DPICS; Eyberg, Nelson, Duke, & Boggs, 2004), to compare the behavior of low-income Mexican American parents of preschool-age children who were referred to a mental health clinic due to behavior problems to parents of nonreferred preschoolers. The DPICS is an integral part of both assessment and treatment in Parent Child Interaction Therapy (PCIT), in which it is used as both an outcome and a process measure. In PCIT, the DPICS is used in each session with the parent and child to assess progress and to identify skills on which parents require further coaching from the therapist. Parents “graduate” from treatment when they have met mastery criteria of particular skills on the DPICS and child behavior is within normal limits on the ECBI (Eyberg & Members of the Child Study Laboratory, 1999). Other intervention programs also use the DPICS as an outcome measure in trials measuring the efficacy of interventions for young children with behavior problems, such as The Incredible Years (Webster-Stratton, 2000). However, to date, the DPICS normative data and the psychometric properties of the DPICS have not been examined among ethnic minority families (Butler & Eyberg, 2006). Parents completing the DPICS are observed through a one-way mirror while they interact with their child in a playroom. Parents are given three sets of instructions that vary the level of parent directiveness in each situation. First, parents are asked to follow their child’s lead in the play, because parents of children with oppositional behavior have been found to issue excessive commands, which in turn increases child noncompliance, even in situation where such control is unnecessary or undesirable (Forehand & Scarborough, 1975). The first phase of PCIT focuses on increasing parents’ use of selective attention to positive child behaviors by coaching parents to increase their use of praise, reflection of child speech, and behavioral descriptions, while reducing questions, commands, and negative talk that may provoke oppositional behavior. Next, parents are asked to choose the activity and get their child to follow along with the parent’s rule in the play. This corresponds to the second phase of PCIT, in which parents are taught to issue effective commands and follow through on those commands, while maintaining a high level of praise, reflection, behavioral description, and avoiding questions and negative talk. Finally, parents are instructed to get their child to clean up the playroom without parental assistance, a task that parents and children are required to master to “graduate” from PCIT, with parents combining techniques learned in both phases of PCIT.

Many studies with Caucasian samples have demonstrated the reliability of the DPICS and its validity for differentiating Caucasian children referred to mental health clinics for behavior problems from nonreferred children (see Eyberg et al., 2004, for a review). Existing studies have generally found that, under conditions of low parent directiveness, nonreferred parents

are no more likely to use positive parenting techniques such as praising the child, describing the child's behavior, and reflecting the child's speech, than are referred parents (Aragona & Eyberg, 1981; Bessmer, 1998; Robinson & Eyberg, 1981). However, referred parents have been found to use more negative parenting verbalizations, including criticism (Aragona & Eyberg; Robinson & Eyberg) and direct commands (Robinson & Eyberg). Under conditions of moderate parent directiveness, referred parents have been found to engage in fewer positive behaviors such as praise and more negative behaviors such as criticism (Aragona & Eyberg; Bessmer; Robinson & Eyberg) and direct commands (Bessmer). In addition, studies have found that referred youth are more noncompliant in this situation than their nonreferred counterparts (Bessmer; Robinson & Eyberg). The most directive situation, clean-up, has not been examined in past studies.

The design of this study serves several purposes. First, these data will allow us to examine the extent to which parenting behaviors that have been associated with behavior problems in Caucasian samples are also associated with behavior problems among low-income Mexican American families. If different relations are found across cultures, these differences may suggest areas in which interventions could be modified to address the needs of low-income Mexican American families. Second, because we are using an observational measure, this study allows us to tease apart cultural differences in response styles and perceptions of parenting from actual parenting behaviors, as studies that rely on self-reported parenting are confounded by cultural differences in perceptions and response styles. Third, the current study allows us to examine the construct validity of the DPICS with low-income Mexican American families by examining the extent to which this coding system can differentiate between clinic-referred and nonreferred families. Finally, this study provides the first available normative data on the DPICS collected with Mexican Americans.

In the absence of prior observational research on parenting behaviors in either referred or nonreferred Mexican American families, we hypothesized that low-income Mexican American families would respond to situations in a manner similar to that of Caucasian families. As such, we expected that Mexican American mothers' behavior would differ depending on the demands of the situation: (a) in *child-led play*, in which parents are expected to follow their child's lead, we expected that referred and nonreferred parents would be similar in the extent to which they used positive behaviors (praise, reflection of child speech, behavioral description), but that referred parents would use more negative or directive parenting behaviors (questions, commands, and negative talk); (b) in *parent-led play*, in which parents are instructed to lead their child, we expected referred parents to engage in both less positive and more negative or directive parenting behaviors; (c) in *clean-up*, in which parents are expected to be most directive, although past data are not available, we hypothesized that referred parents would be both less positive and more negative or directive in their behaviors than nonreferred parents in this situation as well; and (d) we expected referred children to be more noncompliant than nonreferred children across all three situations.

Method

PARTICIPANTS

Clinic-Referred Sample—Of 103 families screened by telephone, 31% ($n = 32$) did not meet one of the study inclusion criteria; 11% ($n = 11$) declined study participation; and 2% ($n = 2$) could not participate because of transportation or scheduling problems. The remaining 58 families (82% of those screened and eligible) enrolled in the study and completed pretreatment assessments. Respondents were Mexican American female primary caregivers (92% biological mothers, 3% grandmothers, 2% aunts, and 3% other (foster mother and great-aunt)).

Demographic characteristics of the clinic-referred sample can be found in Table 1. Clinic-referred sample participants were 58 Mexican American 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 they met the following criteria: (a) parent identified the child as a Mexican American child between the ages of 3 and 7; (b) child received a score above the clinical cut point ($T = 60$, raw score = 132) on the Intensity Scale of the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999); and (c) neither parent nor child were participating in any other psychosocial treatment targeting the child's behavior problems simultaneously. Referrals came from several sources: 42% schools or teachers; 22% other agency, clinic, or hospital; 12% self-referred; 5% friend; 2% physician; and 2% social worker.

Nonreferred Sample—Demographic characteristics of the nonreferred sample can be found in Table 1. The nonreferred sample consisted of 57 children recruited from two Head Start programs in the same geographic area as the clinic in which the clinic-referred sample was recruited and received treatment. To qualify for Head Start, family income must fall below the national poverty level. The two Head Start programs serve a combined total of 280 children, 73% of which are Latino. To participate in the nonreferred sample, the child had to score below the clinical cutpoint on the ECBI. All children were between the ages of 3 and 7 years, and the female primary caregiver (95% biological mothers, 3% grandmothers, 2% foster mothers) identified herself and her child as being of Mexican descent.

MEASURES

Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999)—Child behavior problems were assessed with the ECBI, a 36-item parent report measure of disruptive behavior with established reliability and validity with English-speaking samples. The ECBI is made up of two subscales. The first is the Intensity scale, which assesses the frequency of a variety of disruptive behaviors on a scale from 1 (*never*) to 7 (*always*). Example questions include: "How often does your child refuse to do chores when asked?" and "How often does your child tease or provoke other children?" The cut point for clinically significant behavior problems is a score of 132 or higher on this scale. After parents rate the frequency, they are asked whether or not (yes/no) each behavior is a problem for them. The number of "yes" answers makes up the Problem subscale. Both scales have been found to be stable over time and sensitive to the effects of intervention with Caucasian samples (Eyberg & Pincus). Reliability and validity have been established with a Spanish-speaking sample in Spain (Garcia-Tornel et al., 1998), and this translation was used for the current sample after review by an experienced translator to confirm appropriateness of the language for a Mexican American sample. Coefficient alpha for our combined study sample was .96 for the Intensity scale and .74 for the Problem scale.

Dyadic Parent-Child Interaction Coding System (DPICS 3rd ed.; Eyberg et al., 2004)—The DPICS is a behavioral observation system that can be used to code parent and child social interactions. Parents and children are observed during three 5-minute standard situations under sets of instructions that produce varying levels of parental control (i.e., child-led play, parent-led play, and clean-up). The DPICS categories have demonstrated acceptable reliability, as well as both convergent and discriminative validity (Eyberg et al.). For the child-led play and parent-led play conditions, parents are given instructions and then interact with their child for 10 minutes, and the second 5 minutes of the interactions are coded. For clean-up, the first 5 minutes are coded. Instructions for each of the DPICS situations were translated into Spanish, and parents were allowed to choose which language they preferred.

Undergraduate and postgraduate bilingual research assistants were trained until they achieved 80% agreement with a criterion tape before they began coding study DPICS video tapes. Twenty-five percent of the DPICS tapes were recoded by a second research assistant to examine

intercoder reliability. To calculate kappa coefficients for the categories coded in this study, data were collapsed across both samples and the three observation conditions. Kappas for parent categories were: Unlabeled Praise $\kappa = .81$; Labeled Praise $\kappa = .77$; Reflections $\kappa = .73$; Behavioral Descriptions $\kappa = .69$; Negative Talk $\kappa = .79$; Direct Command $\kappa = .85$; and Indirect Command $\kappa = .68$. Kappas for the child categories were: Compliance $\kappa = .75$; Noncompliance $\kappa = .60$; and No Opportunity for Compliance $\kappa = .69$. A child compliance ratio was calculated for children in each sample by dividing the number of times the child complied with an Alpha command (a command that provides an opportunity for compliance) divided by the total number of Alpha commands.

Acculturation Rating Scale for Mexican Americans–II (ARSMA-II; Cuellar, Arnold, & Maldonado, 1995)—Parents' level of acculturation was assessed with the ARSMA-II, a widely used, 30-item measure of acculturation with established reliability and validity for both English and Spanish language versions. The ARSMA-II generates two subscales: a Mexican Orientation scale and an American Orientation scale. Responses are given on a scale of 1 (*strongly disagree*) to 5 (*strongly agree*). Example questions include, "I enjoy watching movies in English" or "I enjoy listening to music in Spanish." It is possible to be oriented to both cultures, neither culture, or to be more strongly oriented to one. Coefficient alpha for our study sample was .92 for the American Orientation scale and .87 for the Mexican Orientation scale. This scale also asked the parent to report on their generation in the United States. Generation was coded as follows: 1 = *born in Mexico or other country*; 2 = *born in the USA; either parent born in Mexico or other country*; 3 = *born in the USA; both parents born in USA and all grandparents born in Mexico or other country*; 4 = *respondent and his/her parents born in the USA and at least one grandparent born in Mexico or other country with remainder born in the USA*; or 5 = *respondent and his/her parents born in the USA and all grandparents born in the USA*.

PROCEDURE

Clinic-Referred Sample—A bilingual research assistant screened all families by phone for eligibility using a standardized measure of child behavior problems. Eligible families that agreed to participate were invited to complete a comprehensive interview at a community mental health clinic, where they provided written informed consent. All families were compensated \$100 for completing a 4-hour assessment and were given the choice of completing the interview and observations in English or Spanish.

Nonreferred Sample—Families were recruited from Head Start programs in the area surrounding the community mental health clinic in which the research was conducted. Families were invited to participate through presentation during parent meetings and flyers distributed at the school buildings at dropoff and pickup times. All families were screened for eligibility by phone using a standardized measure of behavior problems in children. Eligible families that agreed to participate were invited to complete a comprehensive interview at a local community mental health clinic, where they provided written informed consent. All families were compensated \$40 for completing a 2-hour assessment and were given the choice of completing the interview and observations in English or Spanish.

Results

Data were examined for outliers (none were found) and missing data replaced by mean substitution. Less than 1% of data points were missing. Independent samples *t*-tests or chi-square tests were computed to compare the clinic-referred sample to the nonreferred sample on background variables (Table 1). These analyses revealed no significant differences in child age, maternal age, Mexican orientation, generation in the U.S., annual income, child gender,

maternal education, or maternal marital status. However, the nonreferred sample was significantly more American-oriented, $t(113) = -3.60, p < .001$, and more likely to have completed the interview in Spanish ($\chi^2 = 5.41, p < .05$), although the difference in rates of Spanish interviews became nonsignificant when a Holm-Bonferroni correction was applied (Holm, 1979). In addition, the clinic-referred sample reported much higher levels of behavior problems on the ECBI than did the nonreferred sample, $t(113) = 18.37, p < .001$, which is to be expected given that this instrument was used to differentiate the two groups at screening.

Next, multivariate analyses of covariance (MANCOVAs) were conducted to compare frequencies of the parent behaviors across clinic-referred and nonreferred samples while controlling for American orientation in each of the analyses (see Tables 2–4). Although the samples differed significantly in language preference as well, we did not control for it in these analyses because the difference became nonsignificant when a Holm-Bonferroni correction was applied, and due to the high correlation between the two covariates ($r = -.72, p < .001$). Furthermore, results were virtually identical regardless of which of the two covariates were entered. Overall MANCOVAs were nonsignificant for child-led play positive behaviors, Hotelling's $T^2(4, 109) = 0.03, p = .51$, parent-led play positive behaviors, Hotelling's $T^2(4, 109) = 0.06, p = .18$, and parent-led play negative or directive behaviors, Hotelling's $T^2(4, 110) = 0.07, p = .26$. MANCOVAs were significant for child-led play negative or directive behaviors, Hotelling's $T^2(4, 110) = 0.09, p < .05$, clean-up positive behaviors, Hotelling's $T^2(4, 109) = 0.09, p < .05$, and clean-up negative or directive behaviors Hotelling's $T^2(4, 110) = 0.30, p < .001$.

Next, for those MANCOVAs that were significant, we compared the individual code frequencies between the two samples. Within child-led play negative or directive behaviors, parents in the clinic-referred sample were more likely to use negative talk, $F(1, 112) = 5.29, p < .05$, and commands, $F(1, 112) = 9.46, p < .01$, but did not differ on questions, $F(1, 112) = 0.33, p = .57$. Within clean-up positive behaviors, parents in the clinic-referred sample were less likely to use behavioral descriptions, $F(1, 112) = 4.77, p < .05$, and reflections, $F(1, 112) = 4.98, p < .05$. However, these differences became nonsignificant when a Holm-Bonferroni correction was applied, and families did not differ on use of unlabeled praise, $F(1, 112) = 1.52, p = .22$, or labeled praise, $F(1, 112) = 0.09, p = .77$. Within clean-up negative or directive behaviors, parents in the clinic-referred sample were more likely to use negative talk, $F(1, 112) = 15.49, p < .001$, and commands, $F(1, 112) = 27.32, p < .001$, but were not more likely to ask questions, $F(1, 112) = 0.48, p = .49$.

Finally, we examined differences in child alpha compliance to parental commands across the three situations, controlling for American orientation. Children in the clinic-referred sample were observed to be less compliant than those in the nonreferred sample across child-led play, $F(1, 85) = 11.29, p < .001$, parent-led play, $F(1, 102) = 19.10, p < .001$, and clean-up, $F(1, 110) = 9.89, p < .01$. N 's for these analyses varied because some parents did not use opportunity commands during child-led play and parent-led play.

Discussion

The results of this study generally support the use of the DPICS to differentiate clinic-referred from nonreferred low-income Mexican American preschoolers. Study hypotheses were partially confirmed. Consistent with our predictions for child-led play, referred Mexican American parents were similar in their use of positive behaviors but used more negative or directive behaviors than did nonreferred Mexican American families. Our predictions for clean-up were partially supported, as referred parents used more negative or directive behaviors in this situation. However, our predictions for parent-led play were not supported; we found no differences between referred and nonreferred families in this situation. Finally, the

hypothesis that referred children would be more noncompliant to parent commands than nonreferred children in all three situations was supported. In general, the pattern of differences in behavior between referred and nonreferred parents varied widely across the three DPICS situations. Clinic-referred parents were more directive of the child in situations where direction was discouraged (child-led play), differed least from nonreferred parents when they were instructed to lead the play, and used more negative parenting when asked to direct their child to clean up.

In the child-led play phase of the observation, parents were asked to follow their child's lead and to play along with his/her game. These instructions are designed to elicit a pleasant parent-child interaction, increasing the opportunity for parents to attend to and reinforce positive child behaviors and minimizing the opportunity for noncompliance and parent-child conflict. Consistent with our hypothesis, Mexican Americans in the clinic-referred sample were no less likely to engage in positive parenting behaviors than were those in the nonreferred sample but were significantly more likely to engage in negative or directive parenting behaviors, specifically, commands and negative talk. These findings are consistent with the original normative study of the DPICS, which found no differences between referred and nonreferred Caucasian families in positive behaviors, but significantly greater commands and criticism among referred families (Robinson & Eyberg, 1981). The same pattern of results was found between parents referred for neglect and nonreferred parents (Aragona & Eyberg, 1981). In general, these findings suggest that both Caucasian and Mexican American parents of children with behavior problems tend to be more directive and critical under circumstances in which these behaviors are least called for. Referred parents engage in behavior likely to elicit noncompliance from their children even when that behavior is unnecessary, which may contribute to conflict and negative interactions between parent and child throughout the day. However, it is also possible that the referred children engage in more aggressive, annoying, or impulsive behaviors that lead the parents to respond by exerting more control over the child.

In parent-led play, parents are instructed to tell the child that it is the parent's turn to choose the game and to have the children play according to the parent's rules. Thus, parents are expected to exert more control over their children, which creates greater opportunity for child behavior problems. Our hypothesis that more positive and fewer negative or directive parent behaviors would occur among nonreferred Mexican American parents compared with referred Mexican American parents was not supported; no significant differences were observed between referred and nonreferred families in parent-led play. Our findings are consistent with Robinson and Eyberg's (1981) finding of no differences in positive behaviors between referred and nonreferred Caucasian families in parent-led play. However, both Aragona and Eyberg (1981) and Bessmer (1998) found greater use of praise among nonreferred families in parent-led play. Further, our findings regarding negative or directive parenting behaviors in parent-led play were inconsistent with past studies that have documented greater criticisms and commands (Bessmer; Robinson & Eyberg) or criticism alone (Aragona & Eyberg). Thus, it appears that referred Mexican American families may differ from nonreferred Mexican American families less than their Caucasian counterparts under conditions in which they are instructed to lead their child's activity in play.

In the clean-up situation, parents are instructed to get their child to clean up all of the toys in the playroom without their help. This is the most demanding situation in the DPICS and mimics naturalistic situations in which child noncompliance is more likely to be elicited. The third hypothesis predicted fewer positive and more negative or directive behaviors among referred parents during the clean-up phase of the DPICS. This hypothesis was partially confirmed. Referred parents were less likely to use both behavioral description and reflection, but this difference became nonsignificant when a Holm-Bonferroni correction was applied. Referred parents were more likely to use commands and negative talk than were nonreferred parents

during clean-up. This finding cannot be contextualized by past studies because no published studies have compared referred to nonreferred parents in the clean-up phase. However, given that our findings indicate that clean-up is one of the situations in which the greatest divergence between referred and nonreferred families is found, clean-up is likely to be an important tool for differentiating families experiencing child behavior problems both clinically and in research.

One of the more surprising findings of the study is that referred and nonreferred parents differed very little in positive parenting behaviors. Rather, the greater differences were found in negative parenting behaviors, particularly negative talk and commands. This suggests that these negative behaviors may be the most powerful in maintaining oppositional behavior in young Mexican American preschoolers. Further, we also found that situations at the extremes of directiveness are most likely to elicit differences in parenting strategies across referred and nonreferred samples. At moderate levels of directiveness, the referred families were indistinguishable from the nonreferred families.

This study has the strength of two samples of low-income Mexican American families observed in interaction with their children under controlled conditions with a standardized coding system. The samples examined here are the largest published samples of parent-child interactions coded using the DPICS system and the first data published specifically on Mexican American families. However, the current study suffers from several limitations. First, because our sample did not include the full range of socioeconomic status, our results are only generalizable to low-income Mexican American families. Second, data were unavailable to compare families who enrolled in the study to those who refused. Third, although studies comparing within cultures rather than across cultures are optimal for revealing risk processes relevant to a particular ethnic group, the study would have benefited from the inclusion of a Caucasian sample for comparison. Although the data presented here suggest a largely similar pattern of parenting differences between referred and nonreferred parents across Mexican American and Caucasian samples, we cannot determine whether Mexican American parenting differs substantially from Caucasian parenting from these data. Unfortunately, published norms for the DPICS are available for children with oppositional-defiant disorder, but available normative samples do not include the information needed to make comparisons with the current sample, either because they used a coding time frame that is different from that used in the current DPICS manual (Aragona & Eyberg, 1981), use different coding categories from the current manual (Robinson & Eyberg, 1981), and/or did not present standard deviations (Bessmer, 1998). Finally, although psychometric data for the ECBI are available for Spaniards, data are unavailable on the psychometrics of the ECBI in Mexican American samples. The results presented here show that the DPICS is capable of differentiating between referred and nonreferred Mexican American parents in both the child-led play and clean-up situations, and in child compliance across all three situations. Furthermore, the findings suggest that many of the parenting behaviors that are associated with behavior problems among Caucasians are also associated with behavior problems among Mexican American families, suggesting that programs targeting these parenting behaviors have the potential to produce desired outcomes in both cultures.

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Table 1

Descriptive Statistics for Referred and Nonreferred Samples (N = 115)

	Clinic-Referred (<i>n</i> = 58)	Nonreferred (<i>n</i> = 57)
Variable	Mean (<i>SD</i>)	Mean (<i>SD</i>)
<u>Continuous variables</u>		
Child age (months)	52.79 (12.30)	52.54 (10.04)
Mother age (years)	32.24 (8.13)	32.9 (9.0)
Yearly income (\$)	23,271 (14,518)	25,556 (16,773)
American orientation	2.69 (0.89)	3.27(0.87)
Mexican orientation	4.23 (0.55)	4.18 (0.76)
Generation in US ^a	1.34 (0.72)	1.41 (0.84)
ECBI intensity score	182.12 (27.0)	99.53 (20.7)
<u>Categorical variables</u>		
Male gender	70.7%	61.4%
≤ High school education	58.6%	49.1%
Mother married	69.0%	61.0%
Interview completed in Spanish	67.2%	61.4%

^aGeneration was coded as follows: 1= born in Mexico or other country; 2 = born in USA; either parent born in Mexico or other country; 3 = born in USA; both parents born in USA and all grandparents born in Mexico or other country; 4 = respondent and his/her parents born in USA and at least one grandparent born in Mexico or other country with remainder born in USA; or 5 = respondent and his/her parents born in USA and all grandparents born in USA.

Table 2

Definitions for DPICS Codes

DPICS Code	Definition
Negative Talk	Verbal expression of disapproval of the child or the child's attributes, activities, products, or choices.
Direct Commands	Declarative statements that contain an order or direction for a vocal or motor behavior to be performed and indicate that the child is to perform this behavior.
Indirect Command	A suggestion for a vocal or motor behavior to be performed that is implied or stated in question form.
Labeled Praise	Provides a positive evaluation of a specific behavior, activity, or product of the child.
Unlabeled Praise	Provides a positive evaluation of the child, an attribute of the child, or a nonspecific activity, behavior, or product of the child.
Questions	Verbal inquiries that are distinguishable from declarative statements by having a rising inflection at the end and/or by having the sentence structure of a question.
Reflective Statement	A declarative phrase or statement that has the same meaning as a child's verbalization.
Behavioral Description	Nonevaluative, declarative sentences or phrases in which the subject is the other person and the verb describes that person's ongoing or immediately completed observable verbal or nonverbal behavior.
Compliance	When a parental command is obeyed or beginning to be obeyed within 5 seconds.
Noncompliance	When a parental command is not obeyed or attempted within 5 seconds, or when behavior incompatible with the command is performed.
No Opportunity for compliance	When adequate chance to comply with a parent command has not been given.

Table 3

Comparison of Clinic-Referred Sample to Nonreferred Sample on Frequency of Parenting Behaviors in Child-Led Play (N=115)

Behavior	Clinic-Referred Sample (<i>n</i> = 58)		Nonreferred Sample (<i>n</i> = 57)	
	Mean	<i>SD</i>	Mean	<i>SD</i>
Child-led Play Positive				
Behavioral Descriptions	0.10	0.31	0.10	0.36
Reflections	2.41	2.72	1.67	2.22
Unlabeled Praise	1.48	2.32	1.32	1.56
Labeled Praise	0.16	0.62	0.02	0.13
Child-led Play Negative or Directive				
Questions	19.07	12.74	17.88	9.55
Negative Talk *	3.21	4.79	1.30	2.25
Total Commands **	12.78	12.43	6.04	4.92
Compliance Ratio ***	.65	.32	.89	.25

Note: Scores indicate frequency of behavior in a 5-minute period.

*
 $p < .05$

**
 $p < .01$

 $p < .001$.

Table 4

Comparison of Clinic-Referred Sample to Nonreferred Sample on Frequency of Parenting Behaviors in Parent-Led play (N=115)

Behavior	Clinic-Referred Sample (n = 58)		Nonreferred Sample (n = 57)	
	Mean	SD	Mean	SD
Parent-led Play Positive				
Behavioral Descriptions	0.17	0.50	0.11	0.31
Reflections	1.95	2.45	0.98	1.36
Unlabeled Praise	1.79	2.91	1.75	2.09
Labeled Praise	0.14	0.48	0.07	0.26
Parent-led Play Negative or Directive				
Questions	19.38	8.92	16.63	9.30
Negative Talk	5.50	8.12	4.35	5.77
Total Commands	21.76	12.97	16.30	10.56
Compliance Ratio***	.65	.30	.86	.21

Note: Scores indicate frequency of behavior in a 5-minute period.

*
 $p < .05$

**
 $p < .01$

 $p < .001$.

Table 5

Comparison of Clinic-Referred Sample to Nonreferred Sample on Frequency of Parenting Behaviors in Parenting Behaviors in Clean-up (N=115)

Behavior	Clinic-Referred Sample (<i>n</i> = 58)		Nonreferred Sample (<i>n</i> = 57)	
	Mean	<i>SD</i>	Mean	<i>SD</i>
Clean Up Positive				
Behavioral Descriptions	0.03	0.18	0.16	0.37
Reflections	0.47	0.82	0.98	1.43
Unlabeled Praise	2.12	3.67	3.02	4.36
Labeled Praise	0.16	0.45	0.21	0.59
Clean Up Negative or Directive				
Questions	12.67	9.38	14.11	9.84
Negative Talk ***	6.93	8.96	2.56	3.26
Total Commands ***	29.66	14.79	15.93	11.62
Compliance Ratio *	.59	.27	.72	.29

Note: Higher scores indicate higher frequency of behavior.

*
 $p < .05$

**
 $p < .01$

 $p < .001$.