

Ecological Predictors of Disciplinary Style and Child Abuse Potential in a Hispanic and Anglo-American Sample

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Abstract:

Recent attention to multicultural issues has sparked recognition that parenting is also a culturally construed phenomenon. The present study involved a diverse sample of 90 Anglo-American and Hispanic parents examining predictors based on distal/proximal levels as conceptualized in the ecological model. The study examined background characteristics (e.g., minority status, educational level, income), intrapersonal (anger, parenting competence, parenting satisfaction), and extrapersonal (social support) factors in the prediction of child abuse potential and dysfunctional disciplinary style. Parents participated anonymously in an in-home assessment. Neither minority status nor income predicted abuse potential or parenting style beyond what was accounted for by educational level. The pattern of findings for the sample suggests the relative importance of anger expression, parenting self-efficacy, and social support satisfaction in both abuse potential and disciplinary style for both Hispanic and Anglo-American parents. Future research directions with diverse samples are considered, including the need for measures specifically designed to assess parenting issues in diverse cultural groups.

Keywords: Child abuse potential - Parenting style - Ecological theory - Multiculturalism - Child maltreatment

Article:

Mounting interest in the variability of parenting styles has emerged from the literature, with heightened recognition that different cultural groups approach parenting in unique ways (Chao 1994; Darling and Steinberg 1994; Zayas 1992). Anthropologists have long studied cultural notions of family and parenting, and differences in African-American parenting styles were acknowledged even in early psychological studies (Baumrind 1972). However, researchers are just beginning to explore the complexity of how different cultural groups approach parenting (Ferrari 2002). Confusion is greatest regarding cultural differences in parenting strategies construed as harsh or abusive.

Debate surrounding connections between culture and child abuse has been both heated and complex, cultivating a myriad of concerns ranging from excessive cultural relativity to reporting biases. For instance, recent statistics of substantiated child maltreatment estimate that racial minority children are at considerably increased risk compared to White Americans, with nearly half of reported maltreatment cases involving minority children (U.S. Department of Health and Human Services [DHHS] 2006). However, some have argued that minorities may be over-represented in reports to social services, with biased statistics often overlooking relevant factors, such as socioeconomic status and educational level (Lassiter 1987). Others have countered that, despite reporting biases, minority children indeed appear to have greater risk for maltreatment (Korbin 1997). No consensus has emerged on how the statistics gauge the true incidence of maltreatment among under-represented groups.

Challenges in maltreatment research often arise from diverse cultural norms for parental physical disciplinary behavior. Certain forms of physical discipline deemed appropriate by some cultural groups are judged abusive by others. Developing standards for a universally ideal parental disciplinary strategy is elusive if not impossible. Alternatively, culturally relativist approaches suggest specific parenting practices may actually be productive for some ethnic groups (e.g., Chao 1994; Zayas 1992) but counterproductive for others.

Cultural differences in the implementation of physical discipline complicate professionals' determinations of appropriateness, further confounded by the fact that physical abuse typically arises from the unintended, inappropriate use of everyday discipline techniques (Herrenkohl et al. 1983; Whipple and Richey 1997). Therefore, the distinction between physical discipline and abuse is complex. The likelihood of physically abusing a child, collectively referred to as child abuse potential (Milner 1994), correlates with both dysfunctional disciplinary styles (Haskett et al. 1995) and greater support for the use of corporal punishment (Crouch and Behl 2001). Both child abuse potential and dysfunctional disciplinary style will serve as dependent variables in the present study, analyzed independently to determine whether findings support both related concepts.

A leading theory of child maltreatment, based on an ecological model (Belsky 1980, 1993), considers cultural factors to be most distal to the child, at the macrosystem level. Conceptually, cultural norms within which the child and family operate impact the acceptability of parent-child aggression (Belsky 1980). However, additional factors also influence at more proximal levels. For example, factors external to the parent, such as their level of social support, are considered at the exosystem level; intrapersonal factors within the parent operate at the most proximal ontogenic level (Belsky 1980; Sidebotham 2001). Collectively, these nested levels of influence theoretically contribute to the occurrence of parent-child aggression.

When investigators study factors that exacerbate abuse risk at such levels, conclusions are generally assumed to apply to all parents, regardless of ethnicity. Thus, many of the findings in the literature have not adequately addressed culturally relevant factors. In theory, certain factors may be more pertinent for some ethnic groups than others. Hispanics are considered one of the fastest growing minority groups in the country (U.S. Census Bureau 2003) and constitute 17% of identified victims of child maltreatment (DHHS 2006). Therefore, studies focusing on Hispanic populations represent a meaningful direction for research on parenting and child abuse risk.

Recent research has begun to evaluate abuse risk more closely in Hispanic populations in particular. Findings have indicated that Mexican-American mothers were less nurturant and more punitive than White mothers, but these group differences were largely accounted for by both financial and parenting stress (Uno et al. 1998). The quality of familism, the importance of family ties, can distinguish abusive from non-abusive Latino families (Coohey 2001). Others have appealed to social service agencies to consider the social stress associated with immigration (Zayas 1992). However, research on the differences in risk factors for particular ethnic groups, including Hispanic parents, is minimal. Consequently, the current study focuses on predictors of abuse potential and discipline style that may be particularly salient for this particular under-represented group.

Relatively understudied among the intrapersonal, ontogenic factors of ecological theory is parents' satisfaction with their parenting roles. Studies have examined parents' satisfaction with their relationship with their children, finding a correlation with harsh discipline style (Simons et al. 1993), and with aggressive parental behavior (Mammen et al. 2003). Parenting satisfaction was also associated with child abuse potential scores in an ethnically diverse sample, including Latina mothers (Medora et al. 2001). Satisfaction with parenting seems likely to be particularly salient for Hispanic groups for whom the importance of family (i.e., familism) is fundamental to cultural norms (Sue and Sue 2003). Similarly, given this emphasis on family, the degree to which a parent feels competent in the performance of their parenting role would also be relevant. Parenting competence has been noted as problematic among abusive parents (see Mash and Johnston 1990 for review) and associated with increased abuse potential (Holden and Banez 1996). Generally the association between parenting competence and abuse potential has not been thoroughly studied in ethnic groups, although lowered sense of parenting competence was found among Latino men who engage in family violence (Baker et al. 2001). Therefore, these two family dimensions, parent satisfaction and parent self-efficacy, are potentially significant factors for Hispanic populations in particular even beyond their association with abuse risk overall. Among the ontogenic, intrapersonal factors, parental anger has been highlighted in several studies of abuse risk. For example, the amount of physical punishment administered was related to the degree to which a parent felt angered by their child (Ateah and Durrant 2005). Problems with anger control are also recognized as

commonplace among physically abusive parents (Ammerman 1990), and anger expression is a powerful predictor of child abuse potential (Rodriguez and Green 1997). Yet anger and aggression also appear to be manifest differently across cultural groups (Ramirez et al. 2001; Rudy and Grusec 2001), in which Spanish students report more hostility and anger (Ramirez et al. 2001), and with some ethnic minorities, including Hispanics, more emotionally expressive than others (Matsumoto 1993). Thus, the expression of anger may be a particularly important factor to consider among Hispanic parents in predicting abuse risk and dysfunctional parenting style.

At an extrapersonal, exosystem level, low social support for parents has been recognized as linked to increased maltreatment recurrence (DePanfilis and Zuravin 1999) and physical abuse potential (Litty et al. 1996). Difficulties in social network support have also been described as problematic for abusive mothers (Chan 1994; Corse et al. 1990). Interestingly, one factor that differs considerably across cultural groups is the importance of social support networks and kinship bonds. Characteristic of more collectivistic societies, extended families serve as a strong source of social support for Hispanic groups (Sue and Sue 2003). Thus, understanding the role of social support in child abuse potential and disciplinary style may be especially important for Hispanic parents.

Nonetheless, studies on abuse potential and disciplinary style seldom include diverse samples or, more pointedly, rarely concurrently evaluate the role of socioeconomic level or educational level in abuse risk, as has been previously recommended (e.g., Lassiter 1987). Thus, studies of abuse risk need to include not only components of a parent's cultural background but these broader, socioeconomic indicators as well. Without considering socioeconomic factors that may also influence the parent and child, research risks inadvertently concluding that factors that increase abuse potential are because of race or ethnicity, or are universal.

The purpose of the present study was to assess the ability of selected intrapersonal and extrapersonal factors, identified as potentially important for Hispanic parents, to predict both child abuse potential and dysfunctional disciplinary style, in conjunction with cultural and background characteristics. In particular, this study hypothesized that minority status would not account for unique variance in abuse risk beyond such variables as income and educational level. Using hierarchical regression analyses, factors reflective of the parent's support system (exosystem level) and the parent's personal characteristics (ontogenic level) were expected to predict abuse risk and disciplinary style beyond the culturally relevant factors (macrosystem level). Focusing on dysfunctional disciplinary style and abuse potential in a community sample of parents, social support resources and satisfaction, as well as anger and parenting competence and satisfaction, were examined in a group of Hispanic and non-Hispanic parents.

Method

Participants

The sample included 90 parents ($n = 66$ mothers, $n = 24$ fathers) to at least one elementary-aged child 12 years or younger (ranging from 5 to 12 years) living in Phoenix, Arizona. Forty-six parents identified themselves as Anglo-American, with the remaining 44 parents classified as Hispanic, largely Mexican-American. For the total sample, parents' mean age was 32.97 years ($SD = 6.80$ years, ranging from 20 to 49 years), with a mean annual family income of \$42,872 and a median of \$31,000. Most of the sample (77.8%) indicated they were currently living with a partner with an average of 2.26 children (ranging from 1 to 6 children). In addition, nearly 79% were high school graduates, with about 29% receiving at least a college degree.

Dependent Measures

The *Child Abuse Potential Inventory* (CAPI; Milner 1986) is a widely used self-report measure predictive of physical child abuse, with 160 statements on which participants indicate agreement or disagreement. Only 77 of the items contribute to the Abuse Scale score, with the remaining questions serving either as fillers or to discern distortion biases. The Abuse Scale involves items tapping such dimensions as personal rigidity, distress, unhappiness, and problems with their child and family. Milner (1986) reports high internal consistency, high test-retest reliability, as well as excellent concurrent and predictive validity in terms of correctly classifying

physically abusive individuals. The recommended comparison group included 836 parents, with 13% Black participants as well as 4% of other ethnic backgrounds; despite some indication that minority parents score higher on the CAPI Abuse Scale, he suggests the standard cut-off scores provide “reasonable classification” of individuals (Milner 1986, p. 14).

The *Parenting Scale* (Arnold et al. 1993) was administered to evaluate dysfunctional disciplinary style. This 30-item measure presents parents with a situation in which they may have experienced conflict with their child and asks them to indicate their general disciplinary reaction to the situation along a 7-point scale, with two opposing reactions placed at the endpoints of each scale. Three styles have been identified: Overreactivity (representing a harsh, angry discipline style), Laxness (reflecting a permissive approach), and Verbosity (in which parents rely on verbal persuasion even when ineffective). A combined Total score, chosen for this study, provides an overall indication of dysfunctional disciplinary style. Retest reliability coefficients are reportedly high, internal consistency was moderate to high, and scores are correlated with observed parent behavior (Arnold et al. 1993). A more recent normative study of the Parenting Scale confirmed internal consistency (.87) for the Total score (Collett et al. 2001), but significant representation of minorities was not reported for either the original or normative study (e.g., 94% Caucasian in the larger normative study; Collett et al. 2001).

Predictors

The *State-Trait Anger Expression Inventory* (STAXI; Spielberger 1988) is a frequently used measure of the experience of anger, including 44 items on a 4-point Likert scale. Because the subscale labeled Anger Expression most closely matches the behavioral display of anger, scores from this portion of the STAXI were selected for analysis in this study. The Anger Expression score includes 20 items, combining Anger-In, the degree to which anger is suppressed, plus Anger-Out, the degree to which anger is manifest outwardly, with an adjustment for the ability to control that anger, Anger-Control (Spielberger et al. 1988). Scores on the Anger Expression scale are converted to T-scores, adjusting for expected gender and age differences, although no ethnic differences are reported (Spielberger 1988).

The *Cleminshaw-Guidubaldi Parent Satisfaction Scale* (PSS; Guidubaldi and Cleminshaw 1985) is a 50-item scale with questions presented in a 4-point Likert format. This measure was selected because it incorporates two of the constructs of interest, parenting competence and parenting satisfaction. Three of the five PSS subscales were utilized in this study. The Child-Parent Relationship and General Satisfaction subscales (10 items on each factor) were combined into a single Parent Satisfaction score representing the respondent’s satisfaction with their role as parents (with this combined score evidencing high internal consistency at .91). A third factor, labeled the Parent Performance subscale (also with 10 items) was used in the current study to assess the parent’s sense of efficacy and competence in their child-rearing abilities. The authors report acceptable internal consistency; less than 10% of their original sample included minority parents, although the authors do report that scores were unrelated to educational level or income (Guidubaldi and Cleminshaw 1985).

The *Social Support Resources* (SSR; Vaux and Harrison 1985) measure was used to assess different features of the participants’ social support network. The focus of this study included the parent’s estimation of the extent of social support resources available as well as their satisfaction with those supporters. The respondents are asked to list up to 10 individuals who support them in either of five areas: emotional support, practical assistance, financial assistance, socializing, and advice/guidance. A total Network Size score is computed based on the number of individuals identified. Then, each individual identified on the list was rated by the participant in terms of their satisfaction with that supporter, yielding a Social Support Satisfaction score. The authors of this measure describe a heterogeneous sample, although only 10% of their sample included minority adults (Vaux and Harrison 1985).

Procedures

All measures and consent forms were translated into Spanish using back translation procedures. One independent bilingual/bicultural translator converted the consent form and questions into Spanish, a second bilingual/bicultural translator separately back-translated this version into English and in session together with a

third bicultural individual, all wording still in dispute was rephrased until a consensus was reached by all three on the phrasing of all questions. The one exception to this procedure involved the Child Abuse Potential Inventory, which is already available in both English and Spanish, and thus the official Spanish version was adopted in the current study. Hispanic parents were then given the option of completing the study in either Spanish ($n = 21$) or English ($n = 23$) at the outset of the study, and their language preference was coded as a rough approximation of parents' level of acculturation.

Bilingual consent forms were sent home to parents with their children from their elementary school. Participation was requested for a study described as investigating attitudes toward raising and disciplining children. Approximately one-third of interested parents returned consent forms, and families were subsequently contacted by phone to schedule a data collection session. One parent in each family volunteered to participate in a session conducted in their home at a time convenient for them. This outreach approach to data collection has several advantages, including: (1) minimizing the complications of subjects traveling to an unfamiliar location, which requires transportation to the researcher as well as resources to provide child care while outside the home participating in the study; (2) augmenting the sample representativeness by minimizing the aforementioned inconveniences and thus involving more economically disadvantaged families; and (3) gathering information about child-rearing and discipline within the context in which those behaviors actually occur.

Instructions and individual items for each measure were presented on a laptop computer screen. Therefore, participants were able to enter their responses to the questions in the study anonymously in order to decrease social desirability responding, and their answers did not appear on the computer screen as they were entered to further facilitate their privacy. Parents received \$15 as compensation for their participation.

Results

Statistical analyses were conducted using SPSS for Windows. Mean scores and standard deviations for each measure appear in Table 1. Higher CAPI Abuse Scale scores are associated with greater abuse risk, and the obtained mean CAPI score for the current sample, which has been administered extensively to non-clinical samples, is slightly above but comparable to the published normative mean (Milner 1986). Although no normative data or clinical cut-off scores are available on the Parenting Scale, obtained mean scores are comparable to those previously reported in the literature for community samples (e.g., Collett et al. 2001), with higher scores suggestive of dysfunctional parenting style. High T-scores on the STAXI are considered problematic and high raw scores on the Parenting Satisfaction Scale, for both Satisfaction and Performance, are indicative of lower parenting satisfaction and lower parenting sense of competence, respectively. High scores on the Social Support Resources measure indicate a larger social network size and greater social satisfaction.

Table 1. Means, standard deviations, and correlations among outcome variables for total sample

	Mean	SD	1	2	3	4	5	6	7
1. Annual family income	\$42,872	\$43,982							
2. Parent Satisfaction	36.30	14.77	-.17						
3. Parent Performance	23.69	6.39	-.14	.33**					
4. Social Support Network	4.61	3.64	.14	-.31**	-.14				
5. Social Support Satisfaction	18.42	3.99	-.06	.13	-.33**	-.09			
6. STAXI Anger Expression T-Score	52.08	11.60	-.16	-.04	.37***	-.11	-.23*		
7. Parenting Scale Total	2.93	.74	-.21	.06	.48***	-.17	-.46***	.47***	
8. CAPI Abuse Scale Total	107.87	88.46	-.26*	.41***	.54***	-.35***	-.23*	.52***	.45***

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Demographic Comparisons

Beginning with background characteristics, preliminary analyses revealed age of parent, partnership status, number of children, and parent gender were unrelated to either the predictors or dependent measures (all $ps \geq .05$). Annual family income was significantly correlated with CAPI Abuse Scale scores ($r = -.26, p < .05$) and marginally correlated with parenting style ($r = -.21, p = .056$) such that those with lower income evidenced greater abuse potential and more dysfunctional discipline approaches (see also Table 1). High school graduates indicated greater parenting satisfaction, $t(88) = 3.65, p \leq .01$, more extensive social support networks, $t(88) = 2.28, p \leq .05$, lower child abuse potential scores, $t(88) = 3.16, p \leq .01$, and lower dysfunctional parenting style, $t(88) = 2.29, p \leq .05$, compared to those without a high school degree. Hispanic parents reported greater parenting dissatisfaction, $t(88) = 4.05, p \leq .001$, smaller social support networks, $t(88) = 3.02, p \leq .01$, and higher child abuse potential, $t(88) = 2.63, p \leq .01$, than Anglo-American parents. Hispanic parents also tended to be poorer, $t(88) = 3.06, p \leq .01$, based on reported annual family income, and Hispanic parents tended to have more children, $t(88) = 2.86, p \leq .01$, compared to Anglo-American parents. Hispanic parents were also less likely to graduate from high school, $\chi^2 = 9.08, p \leq .01$.

With respect to background differences between Hispanic parents opting to complete the study in English ($n = 23$) compared to those electing to respond in Spanish ($n = 21$), no difference between subgroups were identified on age, partner status, educational level, or income (all $ps > .05$). Hispanic parents responding in English had marginally more children, $t(42) = 1.87, p = .07$, than those completing the measures in Spanish. Overall, the background characteristics of the two Hispanic subgroups appeared relatively comparable. Further, with respect to instruments specifically translated for the present study, t -tests indicated that Hispanic parents responding in English obtained scores on all measures comparable to those parents answering in Spanish (all $ps > .05$), with the exception that Spanish-responding Hispanic parents reported fewer members in their social support system, $t(42) = 2.17, p < .05$, than Hispanic parents responding in English.

Bivariate Correlational Analyses

Initial examination of correlations among the predictors and dependent measures reveals several interesting associations (see Table 1). The intercorrelations among the intrapersonal and extrapersonal predictors are modest or nonsignificant, and the absence of multicollinearity within the predictors was later confirmed in the multiple regression analyses. The two dependent measures demonstrated significant associations with the predictors. Specifically, higher CAPI Abuse Scale scores were significantly correlated with fewer social supports and lower social satisfaction as well as lower parent satisfaction, lower perceived parent self competence, and greater anger expression. Moreover, higher Parenting Scale Total scores were significantly correlated with lower social satisfaction and parenting competence but greater anger expression. As would be expected, the two dependent measures of abuse potential and dysfunctional parenting style were also significantly positively associated.

Multiple Regression Analyses

Two multiple regression analyses were then performed to independently predict each of the dependent variables. Hierarchical multiple regression techniques were applied to the data to assess the ability of the risk factors to independently predict participants' CAPI Abuse Scale and Parenting Scale Total scores. In a hierarchical approach, relevant background variables (income, high school graduate status, preferred language use) were entered in the first step (the latter two as dummy variables), followed by minority status (to determine if the variance had already been accounted for by the relevant background variables in the first step), followed by the extrapersonal factors (Social Support Satisfaction, Social Support Network Size), and lastly, the intrapersonal factors (Parent Satisfaction, Parent Performance, and STAXI Anger Expression scores). This analytic strategy was adopted based on the ecological model, with more distal factors entered first followed by more proximal factors. Interaction effects of ethnicity with the extrapersonal or intrapersonal predictors (based on multiplicative interaction terms) were further considered in the regressions but no interaction terms predicted abuse potential or dysfunctional discipline scores (all $ps > .05$).

Initially predicting CAPI Abuse Scale scores, with variables entered at each step as described above, $R^2 = .62$, $F(9, 80) = 12.97$, $p \leq .001$. However, closer examination of those variables contributing significant unique variance included only high school graduation status in the first step (none of the other demographic characteristics significantly accounted for unique variance), the two extrapersonal factors in the second step (Social Support Network Size and Satisfaction) and the three intrapersonal factors in the third step (Parent Satisfaction, Parent Performance, and STAXI Anger Expression scores), resulting in an $R^2 = .57$, $F(6, 82) = 18.30$, $p \leq .001$ (see Table 2 for a summary of the final regression equation results). Of particular interest is that minority status did not contribute significant unique variance after accounting for educational level (nor did income).

Table 2. Final hierarchical multiple regression predicting Child Abuse Potential Abuse Scale scores and dysfunctional disciplinary style on the Parenting Scale^a

<i>CAPI Abuse Scale Results</i>	<i>B</i>	<i>β</i>	<i>sr²</i>
High School Graduate	-39.23	-.18	.103*
Social Support: Network	-3.35	-.15	.091*
Social Support: Satisfaction	-4.04	-.17	.064*
<i>STAXI: T-score</i>			
Anger Expression	3.15	.41	.190***
Parent Performance	3.81	.20	.061**
Parent Satisfaction	1.78	.29	.063***
Intercept = -99.41			
			$R = .76$, $F(6, 82) = 18.30$ ***
			$R^2 = .57$ (Adj $R^2 = .54$)
<i>Parenting Scale Results</i>			
High School Graduate	-.48	-.27	.057*
Social Support: Satisfaction	-.07	-.37	.237***
<i>STAXI: T-score</i>			
Anger Expression	.02	.32	.125***
Parent Performance	.03	.16	.025*
Intercept = 2.879			
			$R = .66$, $F(4, 84) = 16.67$ ***
			$R^2 = .44$ (Adj $R^2 = .42$)

* $p \leq .05$; * $p \leq .01$; *** $p \leq .001$

^a*Unstandardized regression coefficients (B) and intercept, standardized regression coefficients (β weights), semipartial correlation coefficients or incremental r^2 (sr^2), multiple correlation coefficient (R), squared multiple correlation coefficient (R^2), and adjusted squared multiple correlation (adj R^2)*

To predict the Parenting Scale Total scores of dysfunctional discipline style, with variables entered as described above, $R^2 = .50$, $F(9, 80) = 7.91$, $p \leq .001$. However, utilizing only those contributing significant unique variance, high school graduation in the first step and only Social Support Satisfaction and STAXI Anger Expression and Parent Performance scores in last step reliably improved the prediction of Parenting Scale scores. The most parsimonious regression equation (see Table 2 for a summary) resulted in an $R^2 = .44$, $F(4,84) = 16.67$, $p \leq .001$. Note that neither income nor minority status contributed significant unique variance after accounting for high school graduation.

Discussion

In the current study, distal and proximal factors, as conceptualized by the ecological model (Belsky 1980, 1993), were examined in the prediction of child abuse potential and maladaptive disciplinary style in Anglo-American and Hispanic parents. Minority status was investigated in conjunction with socioeconomic variables to determine if minority status independently contributed variance to abuse potential or disciplinary style. Moreover, intrapersonal factors (parenting sense of competence, parenting satisfaction, anger) and extrapersonal factors (social support) were selected as predictors of abuse potential that would be potentially relevant factors for Hispanic parents. Overall, the pattern of findings suggests Hispanic parents demonstrated similar discipline styles and abuse potential compared to non-Hispanic parents upon accounting for educational level.

Although annual income demonstrated modest correlations with child abuse potential and dysfunctional discipline style scores, educational attainment demonstrated more powerful effects. High school graduates were more likely to report satisfaction with their parenting role as well as more social support resources. Most importantly, high school graduates obtained lower child abuse potential scores and reported disciplinary styles considered more adaptive. The influence of educational level was further apparent in the regression analyses, wherein education accounted for variance independent of minority status or income, for both child abuse potential and disciplinary style. The role of education has been noted as a component of the ecological model (e.g., Sidebotham 2001), although seldom are minority status, income, and educational level considered simultaneously. However, the relative insignificance of income is inconsistent with earlier studies (e.g., Uno et al. 1998). At minimum, future research should concurrently consider the possibility that potential ethnic/racial differences in abuse risk reflect differences in educational opportunities, as well as income differentials (as recommended by Lassiter 1987).

In addition, consistent with previous research (e.g., Ateah and Durrant 2005; Rodriguez and Green 1997), higher anger expression scores were strong predictors of both child abuse potential and disciplinary style, with significant unique variance accounted for by the parents' report of how they typically react when angry. Hispanic parents, irrespective of whether they responded in English or Spanish, obtained anger scores comparable to Anglo-American respondents, and this particular variable appears to impact abuse risk factors regardless of cultural background. Given the strength of this association, difficulties with anger management appear to be central to how parents react when disciplining their children as well as to how likely the parent is to physically abuse their child for both non-Hispanic and Hispanic parents.

Given the importance of family for Hispanics, parenting satisfaction was considered relevant in the current study. Parenting satisfaction was indeed significantly correlated with, and predictive of, child abuse potential, but not discipline style, for the full sample. The absence of a connection between parenting satisfaction and disciplinary style is inconsistent with prior research (Simons et al. 1993). However, Hispanic parents did report greater parenting dissatisfaction, and although no interaction effect was detected, it is possible that parent dissatisfaction has a more complex role in disciplinary style. Nonetheless, the entire sample demonstrated a unique contribution of parent satisfaction in the prediction of child abuse potential in which parents who were satisfied with their parenting role and their relationship with their child were likely to have lower abuse potential.

Also in the parenting domain, sense of parenting competence was associated with both maladaptive disciplinary style and child abuse potential, as had been expected from previous research (Holden and Banez 1996; Mash and Johnston 1990). No differences in perceived parenting competence between Hispanic and non-Hispanic parents were identified. Hence, similar to anger expression, a parent's self-efficacy appears related to their abuse risk irrespective of their cultural background. Given the current findings, parents who question their child-rearing abilities evidence higher child abuse risk and are also likely to engage in maladaptive discipline techniques. Given the importance of family in Hispanic groups, the role of such constructs, specifically targeting parents' conceptions of their family roles, deserves greater study.

With respect to the extrapersonal factor, deficits in social support have been previously linked to abuse risk (DePanfilis and Zuravin 1999; Litty et al. 1996), and social support is recognized as particularly important for Hispanic cultures. The present investigation identified that some aspects of social support may be important, with higher social satisfaction strongly related to (and subsequently, predictive of) disciplinary style. Although the extent of social support resources was not uniquely predictive of disciplinary style, both the network size and satisfaction with social support were associated with child abuse potential. Thus, whereas satisfaction with ones' support system may be important for both discipline style and abuse potential, the perceived number of supporters may be more specific to the higher risk embodied in abuse potential. Continued study of the social networks of various cultural groups also appears warranted given that Hispanic parents in the present study perceived fewer social supports, which would in turn potentially place them at greater risk for maltreatment. Indeed, the relatively smaller social support system identified by respondents who elected to report in Spanish corresponds with research suggesting that immigrants are at greater risk of social isolation (Hiott et al. 2006).

Overall, findings from this study raise questions regarding the use of measures of abuse potential, dysfunctional parenting style, and their predictors with Hispanic parents. Hispanic parents obtained Child Abuse Potential Inventory scores significantly higher than their non-Hispanic counterparts. Although results appear to be attributable in part to background factors, such as educational level, the CAPI remains a widely used instrument that has not received extensive scrutiny regarding its utility with various minority and cultural groups. Thus, future studies must evaluate whether the CAPI adequately assesses abuse risk in Hispanic parents, and potentially in other minority groups as well, to establish whether the CAPI over-identifies abuse risk in under-represented groups. Notably, disciplinary style did *not* differ between Hispanic and non-Hispanic parents, underscoring the need to evaluate the CAPI in particular.

This study is limited by its use of translation/back-translation methods to administer the measures in Spanish. Although such strategies are part of the larger considerations involved in translating instruments (Van Widenfelt et al. 2005), literal translations of measures do not necessarily address other semantic and cultural nuances of language. Although this study cannot confirm the psychometric equivalency of the translated measures, efforts to provide participants the opportunity to respond in their own language are rare in parenting research, and translation was considered preferable to excluding Hispanic parents not sufficiently proficient in English. Nevertheless, future research need to delineate instruments that assess the constructs of abuse potential and associated parenting measures, specifically testing their equivalence and relevancy to those for whom English is not a preferred language. Creation of such culturally relevant instruments will be admittedly challenging given the divergence of opinion on which parenting behaviors are inappropriate or abusive. Potentially anchoring such constructs to poor child outcome may represent an avenue for developing measures that reflect dysfunctional parenting behaviors for children in a given cultural group.

Some of the conclusions from this study are further limited by the number and nature of the parents who participated. Although strategies were used to enhance the generalizability of the sample involved in this study (e.g., inclusion of monetary incentives for parents' participation, data collection in the home, a bicultural sample), participants remain a community sample of volunteers willing to allow researchers into their homes. Thus, participants may still reflect an atypical sample of motivated parents. In addition, greater representation of other racial/ethnic groups, particularly including more fathers, is still needed. This study targeted a community sample because exclusively exploring potential risk factors with substantiated abusive parents is limited to those identified in the social service system; the latter likely do not exemplify the much larger population of parents at risk for actually perpetrating child abuse. However, an intriguing avenue for future research would involve a larger, culturally diverse at-risk sample, or alternatively, accompanied by a comparison group substantiated as abusive. Evaluating parents along different risk levels would enable researchers to identify which factors remain consistent predictors across the spectrum of physical aggression toward children.

In addition, future studies evaluating the demographic and background characteristics of diverse samples should explicitly incorporate measures of a parent's level of acculturation. Although language preference (a rough proxy measure of acculturation) did not uniquely predict abuse potential or discipline style in the regression

analyses, a more comprehensive measure directly tapping a parent's level of acculturation may provide more meaningful insight into its role for immigrant groups, as time since immigration may influence child-rearing and discipline attitudes (Buriel 1993; Mitchell 1990). Information regarding the specific immigrant status and time since immigration is not available for the present sample, although such concepts should be included in future research that addresses the potentially significant role of acculturation.

An additional limitation of the present results reflects the correlational nature of this research design, which cannot address whether the selected "predictors" investigated are indeed causal factors. Furthermore, the present study is limited by its reliance on self-report measures. Although the anonymous nature of the current study increases the likelihood of accurate reporting, results remain based on parents' self-report, and future studies should consider adding alternative assessment approaches. Despite the reliance on self-report, the Child Abuse Potential Inventory does not overtly focus on disciplinary behavior, in contrast to the Parenting Scale, and the comparability of findings across these two measures augments confidence in the present study's results. Moreover, the concepts underlying the selected predictors are largely independent of the item content and concepts representing either dependent measure. However, a more complex, multi-method, longitudinal study could address some of these design issues.

As a whole, the role of educational level warrants continued study, reaffirming the importance of considering distal, background factors in the provision of services to different subgroups. The present results suggest that, although Hispanic parents may be considered at greater risk to abuse, background characteristics may account for those differences. These findings also suggest that prevention and intervention efforts could combine anger management techniques with enhancing social support systems and improving the perceived quality of parenting for both Anglo-American and Hispanic parents. Such efforts to promote social support systems may be especially important for immigrant parents who may not have established networks to offset some of their abuse risk. Future work needs to build comprehensive models to discover which factors indeed increase abuse risk and influence disciplinary style for different cultural groups. In the absence of such multivariate analyses, conclusions regarding directions for more complex interventions by professionals can be misleading. If separate, unrelated factors could be identified as strong predictors, we could critically evaluate how to approach them therapeutically to more systematically forge a path towards more efficacious child maltreatment programs and parenting programs for the increasingly culturally diverse community.

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