

## ABSTRACT

Title of Document: ASSOCIATIONS BETWEEN PARENTING  
AND CHILD BEHAVIOR PROBLEMS  
AMONG LATINO MOTHERS AND  
CHILDREN

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The present study examines the ability of global parenting styles and specific parenting practices to predict attention and behavior problems in Latino children. Sociodemographic variables and acculturation were considered in all analyses to examine, and account for, their influences. 107 Latino mothers with a child between 6 and 12 years old completed demographic, parenting, and child behavior measures. Hierarchical linear regression analyses were conducted in order to predict child behavior from sociodemographic variables, acculturation, and parenting. *All three* parenting styles, and most practices, predicted reported behavior problems. Level of acculturation also consistently predicted child behavior problems. The present study adds to the growing body of literature demonstrating some differences in the associations between these styles and child behavior problems compared to what has been found in the general literature. In addition, it highlights the importance of considering level of acculturation when examining these associations within this population.

ASSOCIATIONS BETWEEN PARENTING AND CHILD BEHAVIOR  
PROBLEMS AMONG LATINO MOTHERS AND CHILDREN

By

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Thesis submitted to the Faculty of the Graduate School of the  
University of Maryland, College Park, in partial fulfillment  
of the requirements for the degree of  
Master of Arts  
2005

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## Dedication

This work is dedicated to my family, without whom I could not have come even this far. To my mother and father, Carmen and Salome Diaz; I have felt your love and encouragement every day of my life, and have used that as the foundation on which I aspired to reach my goals. In fact, it carried me every step of the way. I could never thank you enough for what you have given me. To my sister, Carmen J. Diaz; you embody the word “sister” and have always been my very best friend. I thank you and love you for being exactly who you are. To my brother, Benny; you will always be my “baby bro”. I love you for being the silver lining in a dark cloud and for bringing me never-ending laughter. Finally, to my nieces and nephew, Yamalis, Alycia, Alexys, and Robert; thank you for lighting up my world. God blessed me with each of you.

Este trabajo es dedicado a mi familia, sin quien yo no podría haber venido hasta aquí. Para mi mama y mi papa, Carmen y Salome Diaz; yo he sentido su amor y su apoyo cada día de mi vida, y he utilizado eso como la base en cual aspiré a alcanzar mis metas. De hecho, me ayudo en cada paso de mi camino. Nunca podrá dar les gracias suficientes por lo que ustedes me han dado. Para mi hermana, Carmen J. Diaz; tu personificas la palabra “hermana” y siempre ha sido mi mejor amiga. Yo te doy las gracias y te amo por ser exactamente quien eres. A mi hermano, Benny; tu siempre serás mi “baby bro”. Te quiero por ser el sol que forra una nube oscura y por traerme risa interminable. Finalmente, a mis sobrinas y mi sobrino, Yamalis, Alycia, Alexys, y Roberto; gracias por iluminar mi mundo. Ustedes son mis bendiciones de Dios.

## Acknowledgements

This study was supported by a Ruth L. Kirschstein National Research Service Award (NRSA), funded by the NIH, awarded to Yamalis Diaz (1 F31 HD051094-01).

In addition, the assistance of several people was instrumental in completing this study. First, I would like to acknowledge the contributions of my academic advisor, Dr. Andrea M. Chronis, and the other members of my thesis committee, Drs. Jack Blanchard and Nathan Fox. In addition, Drs. Peter Guarnaccia and Samuel M. Turner both served as senior research mentors and provided feedback throughout the study. My colleagues at the Maryland ADHD Program also provided valuable feedback regarding research design. Finally, Leticia Manoel provided research support during the implementation of the study.

This study was also facilitated by the organizations that generously allowed me to recruit participants in their facilities. Specifically, CASA of Maryland, Alexandria Parent's Association, University of Maryland Latino Safety Committee, Christ the Redeemer Church (NJ), Rockville Latino Outreach Program, and CentroNía. Enrique Torrico and his colleagues, at CentroNía, provided instrumental assistance in participant recruitment. Finally, the author acknowledges the mothers who kindly participated in this study.

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## Introduction

Disruptive behavior problems account for a significant number of referrals to mental health professionals among children (Alessandri, 1992; American Academy of Child and Adolescent Psychiatry, 1997; Loeber, Burke, Lahey, Winters, & Zera, 2000). Inattention, hyperactivity/impulsivity, oppositional and aggressive behaviors are estimated to affect 5-10% of children and adolescents and are commonly classified within the DSM-IV diagnostic system as attention-deficit/hyperactivity disorder (ADHD), oppositional defiant disorder (ODD) and conduct disorder (CD; American Psychiatric Association (APA), 1994).

The clinically impairing clusters of behaviors that characterize ADHD, ODD and CD are of critical public health concern. ADHD is associated with symptoms of inattention, hyperactivity, and impulsivity which can cause impairment in multiple settings in which ability to stay on task and appropriate behavior is expected (e.g., school; APA, 1994). ODD is marked by a recurrent pattern of defiant and hostile behavior toward authority figures, while CD is marked by repetitive and persistent patterns of behavior in which age-appropriate societal norms and the basic rights of others are violated (APA, 1994). These problems are commonly associated with impairment in multiple domains, including family, academic (in the case of ADHD), and social functioning, which often persist into adolescence and adulthood. For example, with regard to ADHD, it is suggested that approximately 80% of individuals diagnosed in childhood will continue to have significant problems in adolescence and approximately 50% will still have associated problems in adulthood (Loeber et al., 2000; Ralph, Oman, & Forney, 2001). Given the rate of occurrence and marked impairment associated with

these problems, they are widely viewed as pervasive and chronic psychological conditions which represent a major public health concern (Loeber et al., 2000; Pelham & Waschbush, 1999).

While ADHD, ODD, and CD represent specific symptom clusters that allow clinicians and researchers to use a common categorical system for classifying disruptive behavior problems, some have argued that it may be more useful to understand these problems along a dimensional continuum in order to capture quantitative differences between children (e.g., Achenbach, 1993, 1997). Although the DSM-IV is the most widely used diagnostic system, it has been criticized for failing to recognize the continuous nature of symptomatology and the fact that many symptoms of childhood disorders are normative during some developmental stages. Thus, dimensional measures of disruptive child behavior are widely used as well (e.g., Child Behavior Checklist, Achenbach & Rescorla, 2001). Because each approach provides useful information, many clinicians and researchers support the use of both categorical and dimensional approaches in understanding child behavior problems (e.g., Achenbach 1993; Hinshaw & Anderson, 1996).

Dimensionally, child behavior problems have often been conceptualized in terms of two dimensions, hyperactivity-attention problems and aggression-conduct problems (Lindahl, 1998). When classifying child behaviors along these dimensions, child behavior can be viewed along a continuum representing both “normal” and “abnormal” behaviors to varying degrees. In addition, dimensional approaches allow for comparison to gender and age-based norms. On the other hand, utilizing a DSM-based approach to the classification of these behaviors facilitates comparisons among children who are



above empirically-derived clinical cut-points. Although there is an ongoing debate regarding which approach best captures the nature of psychopathology in children, some have argued that the information gleaned from both dimensional and categorical approaches may be complimentary to each other (e.g., Hinshaw & Anderson, 1996; Angold & Costello, 1993).

### *Parenting*

The majority of the extant literature related to environmental risk factors for disruptive behavior problems has focused on family correlates as predictors of child behavior problems (for a review, see Frick, 1994). This literature has established that parenting is one of the most important factors in the development and persistence of these problems (Dodge, 1990; Wahler, 1990; Campbell, Pierce, March, & Ewing, 1991; Christensen, Phillips, Glasgow, & Johnson, 1983; Conger et al., 1992; Laub & Sampson, 1988). Research focusing on parenting factors has generally conceptualized parenting in light of both global parenting styles (e.g., authoritarian, authoritative, and permissive) and specific parenting practices (e.g., discipline strategies) in order to examine the influence of specific factors on child outcomes (Chamberlain & Patterson, 1995; Baumrind, 1971; Darling & Steinberg, 1993; Robinson, Mandleco, Olsen, & Hart, 1995). Moreover, Darling and Steinberg (1993) propose a theoretical model which suggests that parenting style should be viewed as the emotional climate in which the parent's behaviors are expressed, which has an indirect effect on child outcomes by moderating the link between parenting practices and child outcomes. On the other hand, they suggest that parenting practices should be conceptualized as specific behaviors used by parents in reaching socialization goals, which have a direct effect on child outcomes given their immediate

consequences. Thus, they argue that the distinction between parenting style and parenting practices is necessary in order to disentangle specific components of parenting which may be linked to behavioral outcomes (Darling & Steinberg, 1993; Lewis, 1981). This argument is supported by the idea that the influence of any single parenting characteristic on child outcomes is likely dependent on the configuration of other aspects of parenting (Stewart & Bond, 2002). Thus, while parenting style captures the aggregated effects of specific practices, individual parenting practices are seen as dimensional representations of parenting (Stewart & Bond, 2002).

Research examining parenting from either of these perspectives has suggested differential associations with child behavior outcomes. Parenting style as a global dimension has been the focus of a large body of empirical literature and has been linked to a myriad of child outcomes, including externalizing behavior problems (e.g., Baumrind, 1971; Darling & Steinberg, 1993; Robinson et al., 1995). Much of this research examined parenting style in light of the parenting constructs developed by the early work of Diana Baumrind (1967, 1971). Baumrind proposed a typology that described parenting style as a function of parental control, which can be conceptualized as three qualitatively different types: authoritarian, authoritative and permissive (Baumrind, 1967). Research based on these parenting styles has shown that they may enhance or mitigate positive or negative behavioral outcomes in children (Hart, Olsen, Robinson, & Mandelco, 1997). Authoritarian parenting is characterized by firm control, high levels of restrictiveness, harsh and inconsistent discipline and relatively low levels of emotional warmth (Baumrind, 1968). This parenting style has been linked to negative behavioral outcomes such as aggression, internalizing and externalizing disorders, and

lower levels of emotional functioning (Hart et al., 1997; Rubin, Stewart, & Chen, 1994; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994). On the other hand, authoritative parenting is characterized by a combination of firm control, high emotional support, appropriate levels of independence, and bidirectional communication between the parent and child (Baumrind, 1968). This parenting style has been associated with positive developmental outcomes such as higher academic achievement, greater self-reliance, less deviance, and more positive peer relationships (Steinberg et. al, 1994). Lastly, a permissive parenting style, which has received significantly less research attention as the previous two constructs, is characterized by a lack of parental control such that parents fail to exert power over the child's behavior and have a tendency to give in to a child's demands (Baumrind, 1968). This parenting style has also been linked to delinquency and aggression, which has been attributed to lack of parental supervision and parental indifference characteristic of this parenting style (Haapasalo & Tremblay, 1994).

Specific parenting practices, such as use of physical discipline or inconsistent discipline strategies, have been linked to externalizing behavior problems among children (Petterson, Reid, & Dishion, 1992). In fact, discipline practices have emerged in the empirical research literature as one of the most important components of parenting when considering child behavior problems (Baumrind, 1996; Baumrind, 1997; Chamberlain & Patterson, 1995). Harsh and punitive discipline practices have been linked to negative child outcomes such as child aggression, delinquency and conduct problems (Chamberlain & Patterson, 1995; Deater-Deckard & Dodge, 1997; Weiss, Dodge, Bates, & Pettit, 1992), while parental use of inconsistent discipline strategies have been associated with oppositional problems such as noncompliance (Chamberlain &

Patterson, 1995). Some researchers hypothesize that inconsistent parenting creates a situation in which short-term goals (e.g., temporary child compliance) are achieved at the expense of reinforcing the child's problem behavior. These differential behavioral responses to certain parenting behaviors support the argument that parenting should be examined in light of both general styles and specific parenting practices.

Much of the available literature on parenting styles and practices has been conducted among middle-class, Caucasian families. Thus, associations between parenting and behavior problems among minority families are relatively poorly understood. Given that parenting occurs within the context of the cultural group within which the child is reared, it is necessary to examine parenting within and across ethnic and racial groups (Forehand & Kothick, 1996; Garcia-Coll, 1990; McLoyd, 1990). Indeed, it has been argued that parental beliefs and values, which are directly influenced by culture, are indirect determinants of child outcomes through their direct influence on parenting practices (Darling & Steinberg, 1993). Moreover, given that minority group parents have culturally-determined developmental goals for their children, their parenting behavior will likely differ from Caucasian parents (Zayas, & Solari, 1994). Indeed, available research suggests important differences between Caucasian and ethnic minority parenting (Florsheim, Tolan, & Gorman-Smith, 1996; Forehand & Kothchik, 1996; Pinderhughes, Bates, Pettit, & Zelli, 2000; Whiteside-Mansell, Bradley, Little, Corwyn, & Spiker, 2001), which need to be thoroughly examined in order to better understand the development and presentation of behavior problems *within* individual groups. This will allow researchers to disentangle the common typologies into more cross-culturally

meaningful dimensions and to make important comparisons between groups (Darling & Steinberg, 1993).

### *Cross-cultural Research on Parenting*

As noted earlier, parenting style has received very little cross-cultural research attention, relative to the body of literature focusing largely on Caucasian families. Darling & Steinberg (1993) point out that the influence of parenting style on behavioral outcomes across ethnic and racial groups has not been adequately studied, despite research findings suggesting that differences exist. For example, research focusing on the effects of authoritative parenting across minority groups has found that it is least associated with academic achievement among Asian- and African-American children, which is a stark contrast to the strong association often found among Caucasians (Steinberg, Elmen, & Mounts, 1989; Steinberg, Mounts, Lamborn, Dornbusch, 1991). Moreover, authoritarian parenting has been linked to assertiveness among African-American girls, yet timid and fearful behavior among Caucasian children (Baumrind, 1972). Discrepant findings such as these have led to the hypothesis that the use of an authoritarian parenting style may be adaptive for some minority group parents. This may be particularly true for parents living in more economically disadvantaged neighborhoods (Hill & Herman-Stahl, 2002; O'Neil, Parke, & McDowell, 2001). In fact, Steinberg and colleagues (1991) point out that the levels of parental control characteristic of authoritarian parenting may be beneficial in dangerous environments, while appearing excessively strict in others. Given the overrepresentation of minority families in environmentally disadvantaged neighborhoods, marked by high crime rates, this is a

plausible explanation. In general, this suggests that parenting style should be examined within cultural and environmental contexts.

Given the recently released census results indicating that the Latino population in the U.S. has increased by 58% in the last decade, and that 36% of Latinos are under the age of 18 (US Census Bureau, 2000), cross-cultural research examining risk factors associated with child disruptive behavior problems in this population is increasingly important. Unfortunately, research focusing on parenting styles or practices among Latinos is relatively scarce and has yielded an inconsistent pattern of results (Knight, Viridin, & Roosa, 1994). Latinos have often been characterized as controlling, authoritarian parents (Fromm & Maccoby, 1970; Gutierrez et al., 1988), who utilize physical discipline strategies frequently (Fracasso et al., 1994). On the other hand, they have been described as warm, nurturing, and authoritative (Bird & Canino, 1982; Calzada & Eyberg, 2002; Vega, 1990). Thus, parenting among Latino parents may not be accurately captured by one of the styles alone, and use of specific practices appear to vary significantly within this population.

Research examining parenting among Latino parents has cast some doubt on the applicability of Baumrind's styles to Latinos. More specifically, some research suggests that Latino parents may actually use a combination of parenting practices that are characteristic of both authoritative and authoritarian styles. Indeed, Hammer and Turner (1990) argue that it is possible that Latinos are nurturing and affectionate (i.e., authoritative), while at the same time utilizing higher levels of discipline and control (i.e., authoritarian). For example, a study examining parenting and child behavior among Mexican mothers found that neither the authoritative nor the authoritarian style

predominated (Martinez, 1988). Indeed, results suggested that mothers used practices associated with both styles almost equally. The author noted that use of practices associated with the authoritative or authoritarian style varied widely within their sample, resulting in a range of parenting “patterns”. Based on these findings, the author argued that parenting among Latinos may *range* from permissive to authoritarian styles. Another study, examining both parenting practices and styles, found that Dominican and Puerto Rican mothers reported using authoritative parenting behaviors more frequently than either authoritarian or permissive parenting behaviors (Calzada & Eyberg, 2002). More specifically, they found that their community sample of Latino mothers reported more frequent use of praise, reasoning and positive communication strategies than punitive or physical discipline strategies. In contrast, Cardona, Nicholson, and Fox (2000) found that Latino mothers reported more frequent use of discipline and lower levels of nurturing behaviors than European American mothers. Despite this finding, the authors point out that their data did not support the authoritarian parenting style among Latino mothers, given that discipline and nurturing behaviors, as well as developmental expectations, were still within the “normal” range. Considering Baumrind’s parenting styles, these varied research findings might suggest that parenting among Latinos can be described by more than one style or that the general styles described by Baumrind are not appropriate in describing Latino parenting.

Research examining the association between parenting and child behavior among Latinos is also limited, though available literature provides useful information regarding this relationship and highlights the need for further research in this area. Research examining general parenting style among Latinos has demonstrated different associations

with child behavior compared to what has been found in Caucasian families. First, a study examining parenting and child behavior during parent-child interactions found no significant associations between any of the styles and child behavior problems. On the other hand, significant associations were found between specific maternal practices (e.g., “negative physical control”) and child behavior (Martinez, 1988). In another study, Lindahl and Malik (1999) compared democratic, hierarchical, and lax/inconsistent parenting among Caucasian and Latino parents. Similar to Baumrind’s authoritative style, they characterized democratic parenting in terms of the participation of all family members in decision-making and problem-solving and hierarchical parenting, similar to authoritarian parenting, was characterized by the presence of a clear authority figure with little or no input from the children. Lax or inconsistent parenting, similar to the permissive parenting style, was characterized by the lack of an authority figure altogether. They found that hierarchical parenting was associated with higher levels of externalizing behavior among both Caucasian and bi-ethnic (Caucasian-Latino) children, but not among Latino children. The authors concluded that parenting styles and practices that may be less adaptive among some groups may be more adaptive and “psychologically healthy” in others. Indeed, a study by Park and Bauer (2002), examining the association between parenting styles and academic achievement among Caucasian, Latino, and African American adolescents, found that the authoritative parenting style was only associated with higher academic achievement for Caucasian adolescents, supporting the argument that there are differential associations between parenting and child behavioral outcomes across ethnic groups.



With regard to associations between parenting practices and child behavior, the pattern of results is equally varied. For example, while inconsistent discipline (e.g., variable follow through on stated consequences) has been associated with child conduct problems in Caucasian children (Patterson, 1986), this relationship is not consistently supported within Latino families. In one study, inconsistent discipline was not associated with behavior problems among Latino children (Roosa, Tein, Groppenbacher, Michaels, & Dumka, 1993). On the other hand, several other studies have yielded results that do support a positive association between inconsistent discipline practices and child conduct problems among Latino children (Dumka, Roosa, & Jackson, 1997; Lindahl & Malik, 1999). Considering other parenting practices, strict or “restrictive” parenting practices (e.g., firm rules), have been associated with positive child outcomes (e.g., academic achievement) among Latinos, in contrast to what has been found among Caucasian children (Dearing, 2004; Park & Bauer, 2002). Finally, research has consistently demonstrated that warm and supportive parenting practices are associated with lower levels of conduct problems among Latinos (Dumka et al., 1997; Florsheim et al., 1996; Roosa et al., 1993), across varying levels of SES (Steinberg et al., 1991), which is similar to what has been found among Caucasian children.

As evidenced by this discussion, research findings with respect to both parenting styles and parenting practices, and their association to child behavior problems, are inconsistent and make it difficult to integrate the available literature. Several explanations have been posited regarding this pattern of results, including the argument that culture is commonly confounded with sociodemographic variables, such as

socioeconomic status and level of acculturation (Harwood, Leyendecker, Carlson, Asencio, & Miller, 2002).

### *Limitations of Cross-cultural Research*

Several limitations exist within the body of research focusing on mental health among Latino populations. First, a large portion of the available research conducted on Latinos includes participants of low socioeconomic status, making it difficult to discern whether differences should be attributed to cultural factors or socioeconomic disadvantage (Harwood, Miller, & Irizarry, 1995). In addition, many of these studies fail to control for SES in statistical analyses, yielding results that may suggest erroneous associations. Indeed, both cultural and sociodemographic factors are important in understanding the complex structure within which children are reared and may play a role in the expression of ADHD and other child behavior problems. Given that approximately 23% of the Latino population living in the United States lives below the poverty line (U.S. Census Bureau, 2000), the available literature is an important contribution. Nevertheless, the current state of the research does not provide adequate information on factors associated with parenting or child behavior problems among Latino families.

Overall level of family functioning can be greatly impacted by general socioeconomic stressors (e.g., low income level), which may exacerbate emerging or existing family and parent-child problems. Empirical evidence has demonstrated that there is an increased tendency among parents who experience economic loss to become more rejecting toward their children (Conger et al., 1992; Lempers, Clark-Lempers, Simons, 1989) and to use more harsh and inconsistent discipline practices (Lempers et al., 1989). Additionally, it is suggested that economic hardship may influence parenting

behavior by increasing parental psychological distress and diminishing parental ability to provide supportive and involved parenting (McLeod & Shanahan, 1993). For example, in a study examining the parenting practices of mothers of young children, Fox, Platz, and Bentley (1995) found that less positive parenting practices (e.g., higher levels of discipline, lower levels of nurturing) were more common among mothers who had lower income levels, lower levels of education, and were unmarried. In addition, those mothers who were younger and had more than one child living at home were also found to use less positive parenting practices. Moreover, a review of the literature focusing on the impact of economic hardship on mental health among African American families provides support for a model which suggests that there is an indirect effect of economic disadvantage on child behavior which may be mediated by its effects on parenting behaviors (McLoyd, 1990). Thus, researchers should attempt to parse apart the relative contributions of SES and culture to parenting and to child behavior whenever this is possible.

Level of acculturation is another important consideration when conducting research among Latinos living in the U. S. Indeed, many Latinos living in the U.S. were either not born here or are first and second generation immigrants (Harwood et al., 2002). As such, they face the task of acculturating to their new environment. This involves issues such as economic survival, language acquisition, and learning new behavioral norms (Rogler, Cortes, & Malgady, 1991). Moreover, acculturation may influence the maintenance of certain traditional values versus the extent to which American values are adopted, which influences various aspects of parenting (Harwood et al., 2002). Unfortunately, studies examining parenting and child behavior which include level of

acculturation are scarce and demonstrate varied results. Therefore, level of acculturation should be considered in order to better understand the parenting methods of Latinos living in the United States.

Another important limitation of existing cross-cultural research is the use of inappropriate assessment tools (i.e., measures derived using predominantly Caucasian samples; Knight et al., 1994). Among Latinos, this problem is exacerbated by the lack of well-validated Spanish-language assessment measures. That is, even if a Spanish language version of a measure is available, there has typically been little research conducted to examine the psychometric properties of the translated version. However, the use of measures that are available in a single language may lead to a selection bias and may limit variability within important factors such as level of acculturation. Indeed, given the common use of language preference (Spanish or English) as a measure of acculturation, this may limit the generalizability of results. Thus, when conducting research with Latinos living in the United States, it is often necessary to utilize measures that are available in both English and Spanish. This facilitates access to larger samples, with greater variability in terms of acculturation, and allows researchers to generalize results more broadly.

Latinos are commonly considered as one ethnic category in research, despite significant heterogeneity among this population, including differences in country of origin. Country of origin and associated differences (e.g., reasons for migration, citizenship status) may influence many of the outcome variables often examined in research (Harwood et al., 2002). While it is ideal, it may be difficult to obtain a representative sample of Latinos from across different groups to participate in research.

While one solution might be to recruit large samples from one specific ethnicity, research that examines commonalities among Latinos is an essential preliminary step in identifying research questions that can then be addressed using members of specific Latino groups. Moreover, when a diverse sample is used, researchers should provide a detailed description of the ethnic characteristics of their sample so that results can be interpreted more accurately.

Much of the existing research compares values or practices which may be common among Latinos to Caucasian children and families (Spencer & Markstrom-Adams, 1990). These comparisons are often approached from a “deficit” perspective, aiming to understand what is problematic among Latino families compared to the majority culture rather than exploring normative processes within the diverse groups (Garcia Coll & Pachter, 2002; Harwood et al., 2002). Indeed, there are many strengths within Latino families, including the strong sense of family unity, which may play an important protective role against the development of psychological problems and which may be used to enhance the beneficial effects of treatment.

Given the limitations of previous research focusing on disruptive behavior problems among Latino children, the present study will contribute to the existing literature in several ways. First, this study examined the ability of sociodemographic variables to predict the use of parenting styles and practices. Second, this study examined the relative contributions of various sociodemographic factors and parenting to the prediction of negative child behavior. In addition, level of acculturation was considered in all analyses in order to explore the relative contribution of acculturation to both parenting and child behavior problems. In order to recruit a representative sample in

terms of level of acculturation, all measures were available in both English and Spanish. Also, given the importance of considering both general styles and specific practices, and the inconsistent pattern of results with regard to parenting and child behavior among Latinos, the present study examined both specific parenting style and parenting practices in predicting child behavior problems. Additionally, disruptive behavior problems were measured using both categorical and dimensional approaches.

### *Present Study*

This study examines the association between parenting and child attention and behavior problems within a community sample of Latino mothers, taking into account level of acculturation and other demographic variables which may influence these problems. It is hypothesized that greater use of negative parenting practices, but not general parenting styles, will be associated with externalizing child behavior within a Latino sample. Specifically, it is predicted that hostile or punitive parenting practices, as well as low levels of warmth, will be predictive of behavior problems. On the other hand, it is predicted that general authoritarian parenting style will not predict behavior problems among Latino children.

## Methods

### *Participants*

Participants for this study included 107 Latino mothers who have at least one child between the ages of 6 and 12. In addition, attempts were made to gather a diverse sample of mothers by focusing recruitment efforts in Maryland, Washington, DC, and Virginia. A small proportion of mothers were recruited in NJ. Given the diversity of the

Washington, DC metropolitan area, a sample of participants from various Latino subgroups was ascertained. Most mothers were born outside the United States, and the majority of mothers were from countries in Central America (Table 1). Mothers ranged in age from 20 to 49 years old, with a mean age of 33 years old. Most of the mothers in the sample were married and earned an average total family income of \$30,000 per year. Child characteristics are presented in Table 2. Most of the sample was male and were an average of 9 years old.

### *Study Design*

Participants were primarily recruited from churches, community organizations, and other general locations in the Washington, DC metropolitan area. A small proportion of the sample was obtained in New Jersey. Participants were approached by a bilingual researcher or research assistant and asked to participate in a survey study focusing on their parenting practices and their child's behavior. They were provided with an informed consent form providing detailed information about the study. The consent form was available in both English and Spanish, as were the questionnaires, and participants were given the option of completing the questionnaires in their language of preference (75% of the sample completed the questionnaires in Spanish). Participants were compensated with \$10 in cash upon completion of the questionnaires. They were also offered a free, 5-week group parenting course offered as a further incentive for participation.

## *Measures*

### *Demographic Questionnaire*

Information regarding socioeconomic status (e.g., total family income, employment status), marital status, family composition (e.g., number of family members living in household), country of origin, current age, maternal age at first birth, and maternal level of education were gathered from all participants. This form was created by the investigator in English and translated into Spanish by a professional translation service.

### *Disruptive Behavior Rating Scale – Parent Form (DBRS; Barkley & Murphey, 1998)*

The DBRS is a 64-item symptom checklist that includes DSM-IV symptoms for ADHD, ODD, and CD as well as questions regarding functional impairment associated with the presence of symptoms across several domains. The Spanish translation measure has been published in the Spanish-language version of Barkley & Murphey's assessment manual, *Attention-Deficit Hyperactivity Disorder: A Clinical Workbook* (2<sup>nd</sup> ed; 1988).

Parents complete the DBRS by indicating the degree to which their child exhibits each symptom and the degree to which the presence of symptoms impairs their child's functioning in a specific domain, ranging from "never or rarely" (0) to "very often" (3). Given that this study will select a community sample, rather than a clinic-referred sample, clinical cut-points will not be utilized. Instead, symptoms endorsed as occurring "often" (2) or "very often" (3) will be counted to provide a continuous measure of DSM-IV disruptive behavior problems.



The ADHD items have been examined using a large, nationally representative sample. Factor analyses of this scale yielded two factors, Inattention and Hyperactivity-Impulsivity subscales (DuPaul, Anastopoulos, Power, Reid, Ikeda, & McGoey, 1998). The ADHD scale demonstrated high internal consistency, with alpha coefficients of .92, .86, and .88, for the total score and the Inattention and Hyperactivity-Impulsivity subscales, respectively (DuPaul, Power, Anastopoulos, & Reid, 1998b; Dupaul, Power, McGoey, Ikeda, & Anastopoulos, 1998c). In addition, test-retest reliability data obtained for parent ratings four weeks apart were also relatively high, with Pearson product-moment correlation coefficients of .85, .78, and .86 for the total score and the Inattention and Hyperactivity-Impulsivity subscales, respectively (DuPaul et al., 1998b,c). Finally, some support for the discriminant validity of the ADHD scale has also been established. When Comparisons of this scale to another commonly used measure of ADHD symptoms, the Connors Parent Rating Scale - 48 (CPRS-48; Connors, 1989), yielded significant correlations between the Inattention subscale and the CPRS-48 Learning Problems scale. In addition, significant correlations between the Hyperactivity-Impulsivity subscale and the CPRS-48 Conduct Problems and Impulsive-Hyperactive scales, as well as the CPRS-48 Hyperactivity Index (DuPaul et al., 1998b, c). Psychometric data for the DBRS ODD and CD items are not available. Previous research using the Spanish-language version of the DBRS indicate that the internal consistency for the Spanish version of the ADHD and ODD scales ranged from .89 to .96 (Bauermeister, Matos, Reina, Salas, Martýnez, Cumba1 et al., 2005). Additional psychometric data for the Spanish-language versions of this measure are not available.

*Child Behavior Checklist for Ages 6-18 (CBCL; Achenbach & Rescorla, 2001)*

The CBCL is a self-administered questionnaire designed to assess competencies and problem areas in children and adolescents using a dimensional approach. Two broadband factors, externalizing and internalizing problems, are generated using the CBCL. Additionally, the CBCL provides syndrome profiles that are classified as being within the clinical, borderline clinical or normal ranges as compared to other children of the same gender and age range. The syndrome profile is composed of the following scales: Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints, Social Problems, Thought Problems, Attention Problems, Rule-Breaking Behavior, Aggressive-Behavior, and Other Problems. This study focused on profiles related to externalizing and attention problems by examining profile t-scores. While not a primary aim of this study, results examining internalizing problems are presented in the Appendix.

Psychometric data for the CBCL demonstrate relatively high reliability. The test-retest item reliabilities for the internalizing, externalizing, and total problems scales are .91, .92, and .94, respectively (Achenbach & Rescorla, 2001).. The internal consistency of the CBCL is also relatively high, with alpha coefficients of .90, .94, and .97, for the internalizing, externalizing, and total problems scales, respectively (Achenbach & Rescorla, 2001). A search for published psychometric data for the current Spanish-language version of the CBCL/6-18 yielded no results. However, some research has been conducted among Latino children using the former version for children between the ages of 4 and 16 years. Among a sample of 777 Puerto Rican children, the broadband internalizing and externalizing scales demonstrated high internal consistency, with alphas ranging from .89 to .94 among boys and girls of all ages (Rubio-Stipec, Bird, Canino, &

Gould, 1990). In addition, concurrent validity was examined by comparing CBCL ratings to clinical rating of child maladjustment (i.e., psychiatrist ratings, need for services, and current service status). Results indicated adequate levels of associations between the broad-band externalizing scales and the narrow-band aggressive, hyperactive, and delinquent scales with measures of maladjustment.

It is of note that the differences between the former and current versions of the CBCL are relatively minimal. Specifically, differences are primarily related to the replacement of five rarely endorsed items (on the previous version) with more age-appropriate items (Achenbach & Rescorla, 2001).

*Parenting Styles and Dimensions Questionnaire (PSDQ; Robinson, Mandleco, Olsen & Hart, 2001)*

The PSDQ is a 32-item self-report measure of parenting practices that are characteristic of each of Diana Baumrind's (1971) parenting styles. It is a modified version of the original 62-item PSDQ, which was developed for use with parents of pre-school and school-age children. The 32-item version was developed using Confirmatory Factor Analysis/Structural Equation Modeling (SEM) based on responses from 1900 mothers and fathers (C. Robinson, personal communication, September 23, 2005).

The three orthogonal factors on the measure are consistent with the authoritative, authoritarian, and permissive parenting styles. The measure also has several sub-factors related to each specific parenting style. Further, each sub-factor is made up of several specific parenting practices. Physical coercion (e.g., slaps child), non-reasoning/punitive (e.g., does not explain reasons for punishment), and verbal hostility (e.g., criticizes child) are the sub-factors related to the authoritarian parenting style. Warmth/support (e.g.,

gives praise), democratic participation (e.g., allows child to freely disagree with parents) and reasoning/induction (e.g., explains consequences of child behavior) are the sub-factors related to the authoritative parenting style. Finally, permissive parenting style is made up by an indulgent sub-factor (e.g., does not follow through on stated consequences) (Robinson et al., 1995). The items are rated by the parent on a 5-point Likert Scale ranging from 1 (never) to 5 (always). The general factors (e.g., authoritative, authoritarian, and permissive) and the sub-factors will be included in statistical analyses.

Although psychometric data for the 32-item abbreviated version are not available, the original version is considered to have adequate internal consistency and relatively high reliability. Cronbach alpha coefficients for the three factors are .91, .86, and .75 ( $n=1251$ ) for the authoritative, authoritarian, and permissive factors, respectively, on the 62-item version (Robinson et al., 1995). A 52-item version of this measure was translated into Spanish by Calzada and Eyberg (2002), and yielded alpha coefficients of .79 for the Authoritative factor, .69 for the Authoritarian factor, and .60 for the Permissive factor in their Dominican and Puerto Rican samples. All of the items on the 32-item version used in this study were also on the 52-item version that was previously translated; therefore no additional translation was required for the measure used in this study. No other psychometric data for the PSDQ (English or Spanish version) is available.

*Marin Acculturation Scale (MAS; Marin, Sabogal, Marin, Otero-Sabogal, & Perez-Stable, 1987)*

The MAS is a 12-item self-report measure of the degree of acculturation to the dominant culture developed for both Spanish-speaking and English-speaking Hispanic populations. Items on the MAS pertain to language use, exposure to media, and socialization. Responses on the MAS are rated on a 5-point Likert scale which, when added together, provide a total score of acculturation. These scores range from 12 to 60, with higher scores reflecting higher levels of acculturation.

The MAS was developed with a sample of Hispanic Americans living in the United States, comprised mostly of Mexican and Central American participants (84%). However, use of this measure with other Latino groups (e.g., Puerto Rican and Dominican) has shown high internal consistency (Calzada & Eyberg, 2002). The alpha coefficient for the total MAS score is .92 (Marin et al., 1987). The validity of this measure has been established by comparing scores to other commonly used measures of acculturation, including generational status and length of residence in the US, as well as self-evaluations of acculturation, which yielded significant correlations between the MAS and these other variables (Marin et al., 1987).

#### *Statistical Procedures for Analyzing Data*

Descriptive statistics were calculated to examine the distribution of the sample as well as to examine use of parenting styles and practices (see Table 3). Preliminary linear regression analyses were conducted to examine the ability of sociodemographic variables to predict the use of each of the parenting styles and practices (i.e., sub-factors).

Sociodemographic variables (e.g., maternal age at first birth, marital status, total family

income, level of education, and employment status) were entered in step 1 of a hierarchical regression model. Given a negatively skewed distribution in level of income, log transformations of income were used in all analyses. Categorical variables (i.e., marital status, level of education, and employment status) were dummy-coded. In addition, acculturation was entered in step 2, in order to account for level of acculturation in predicting parenting. Finally, those sociodemographic variables that were found to be most significantly associated with maternal parenting style and use of parenting practices in the preliminary regression analyses were treated as covariates (e.g., entered on first step) in a hierarchical regression model examining the ability of maternal parenting style and parenting practices to predict externalizing behavior among Latino children, while accounting for sociodemographic variables and level of acculturation. These analyses were conducted using two sets of general models, with one set examining parenting styles as predictors of child behavior problems and the second set examining parenting practices. Thus, sociodemographic variables were entered on step 1, level of acculturation was entered on Step 2, and parenting style was entered on Step 3 in the first set of models. The second set of models also included sociodemographic variables on Step 1 and acculturation on Step 2, but included parenting practices (i.e., PSDQ sub-factors) on Step 3. These associations were examined using both DSM-based (DBRS) and dimensional (CBCL) approaches to the assessment of child behavior problems as dependent (predicted) variables.

## Results

### *Sample Characteristics*

While the sample was not selected on the basis of child behavior problems and had an average of three symptoms of ADHD and one DBD symptom, 21% of the children had at least six symptoms of ADHD, which represents the DSM-IV clinical cut-off for ADHD diagnosis. With regard to ODD and CD, 7% of the children had at least four symptoms of ODD and 3% had at least three symptoms of CD, representing the respective DSM-IV clinical cut-off. Given the relatively low frequency of each, ODD and CD symptoms were included in analyses both separately and combined as a total count of disruptive behavior problems. With regard to dimensional measures of child behavior, results indicate that mean CBCL profile scores of interest (i.e., externalizing, attention problems) were all within the normal range. Table 4 presents correlations between the DBRS and CBCL behavior ratings.

Descriptive analyses were conducted to examine use of parenting styles and practices. Table 3 presents mean scores on the PSDQ for each of the styles and practices. In addition, Table 5 presents all correlations between parenting variables.

### *SES, Acculturation, and Parenting*

Preliminary linear regression analyses were conducted to examine the ability of sociodemographic variables to predict parenting. Maternal sociodemographic variables (age at first birth, marital status, income, level of education and employment status) were included in preliminary models predicting each parenting style and parenting practice. Among parenting styles, only permissive parenting was significantly predicted by

sociodemographic variables. Specifically, maternal age at first birth ( $\beta = -.277, p < .01$ ) and employment status ( $\beta = .303, p < .05$ ) significantly predicted permissive parenting, such that mothers who were older at the birth of their first child were less permissive and unemployed mothers were more permissive

With regard to parenting practices, all specific parenting practices were predicted by some sociodemographic variables. First, mothers with at least some college education reported using more warm and supportive practices than mothers who only completed high school ( $\beta = .270, p < .05$ ). Age at first birth significantly predicted use of democratic participation strategies, such that as age at first birth increased, mothers reported using more of these strategies ( $\beta = .303, p < .01$ ). On the other hand, age at birth of first child was negatively associated with use of physically coercive practices ( $\beta = -.231, p < .05$ ). Finally, married mothers reported using less non-reasoning and punitive practices than mothers who were not married ( $\beta = -.218, p < .05$ ).

Level of acculturation did not predict the use of any parenting style. However, it was significantly positively associated with the use of reasoning and induction practices, such that higher levels of acculturation were associated with more use of these practices ( $\beta = .247, p < .0$ ). In addition, level of acculturation significantly predicted the use of verbally hostile practices, such that lower levels of acculturation were associated with greater use of these practices ( $\beta = -.420, p < .01$ ).

### *Parenting and Child Behavior*

Hierarchical linear regression analyses were conducted examining the ability of parenting styles and practices to predict externalizing child behavior problems, while



accounting for significant sociodemographic characteristics and level of acculturation. These analyses were conducted using two sets of models. The first set of models examined the association between Baumrind's parenting styles and child behavior problems, while the second set examined the associations between each of the specific parenting dimensions and behavior problems. Each type of behavior problem was analyzed as the dependent (i.e., predicted) variable in separate regressions. Further, each model was created using three steps. First, those sociodemographic variables that significantly predicted parenting in preliminary analyses were entered on the first step in order to be treated as covariates. Thus, the first set of models included maternal age at first birth, marital status (married vs. unmarried), level of education, and employment status in Block 1, level of acculturation in Block 2, and the 3 parenting styles in Block 3, with levels of child behavior as the dependent variables. The second set of models included maternal age at first birth, marital status (married vs. unmarried), level of education, and employment status in Block 1, level of acculturation in Block 2, and the parenting dimensions in Block 3.

#### *DSM-IV Classification*

##### *Child ADHD Behavior*

ADHD symptomatology was significantly predicted by sociodemographic variables, level of acculturation and parenting. Table 6 and 7 present the results of regression analyses when total number of ADHD symptoms was considered (i.e., combined hyperactive/impulsive and inattentive symptoms). Analyses examining the ability of parenting styles to predict DSM-IV ADHD dimensions of hyperactivity/impulsivity and inattention separately suggested that maternal level of

education and level of acculturation predicted these symptoms. Specifically, mothers who had at least some college education reported fewer hyperactive/impulsive symptoms than mothers who had only completed a high school education ( $\beta = .257, p < .05$ ). In addition, reported hyperactive/impulsive symptoms increased as level of acculturation increased ( $\beta = .363, p < .001$ ). With regard to inattention, mothers who worked part-time reported fewer symptoms of inattention than mothers who worked full time ( $\beta = -.287, p < .01$ ). Finally, level of acculturation was positively associated with more symptoms of inattention ( $\beta = .240, p < .05$ ).

Examining specific parenting practices and child ADHD, several significant results were yielded. Maternal age at first birth was predictive of hyperactive/impulsive symptoms ( $\beta = .228, p < .05$ ), such that as maternal age at first birth increased, reported levels of hyperactive/impulsive symptoms also increased. In addition, maternal level of education significantly predicted hyperactive/impulsive and inattentive symptoms, suggesting that mothers with at least some college education ( $\beta = -.279, p < .05, \beta = -.255, p < .05$ ) reported fewer symptoms compared to mothers and who had only completed a high school degree.

Level of acculturation was positively associated with hyperactive/impulsive and inattentive symptoms ( $\beta = .383, p < .05, \beta = .418, p < .01$ , respectively), suggesting that higher levels of acculturation are associated with higher levels of reported ADHD symptoms.

Finally, with regard to parenting practices, verbally hostile practices were positively associated, and non-reasoning/punitive practices were negatively associated ( $\beta = .288, p < .05; \beta = -.410, p < .01$ , respectively), with ADHD inattentive symptoms. In

addition, physically coercive practices were predictive of hyperactive/impulsive symptoms ( $\beta = .267, p < .05$ ).

#### *ODD & CD Symptoms*

Results of analyses examining combined ODD and CD symptoms are presented in Tables 8 and 9. Examining ODD and CD symptoms separately, results suggest that some sociodemographic variables, level of acculturation, and parenting styles significantly predict these behavior problems. In this set of models, maternal age at first birth was positively associated with CD symptoms ( $\beta = .297, p < .01$ ). No other sociodemographic variables predicted these problems. Use of the authoritative and permissive parenting styles significantly predicted higher levels of ODD symptoms ( $\beta = .250, p < .05$ ;  $\beta = .275, p < .05$ , respectively) and the authoritarian parenting style was positively associated with CD symptoms ( $\beta = .295, p < .01$ ) when sociodemographic variables and level of acculturation were controlled.

Analyses examining parenting practices and child behavior problems indicated a slightly different pattern of results. First, maternal age at first birth and employment status significantly predicted CD symptoms, such that as age at first birth increased, reported conduct disorder symptoms also increased ( $\beta = .372, p < .05$ ). Further, unemployed mothers reported more conduct disorder symptoms than mothers who were employed full time ( $\beta = .272, p < .05$ ).

Level of acculturation was positively associated with ODD symptoms in this regression model ( $\beta = .290, p < .05$ ).

Finally, non-reasoning and punitive practices were *negatively* associated with ODD symptoms ( $\beta = -.295, p < .05$ ) when demographic variables and level of acculturation were controlled. In addition, physically coercive behaviors were positively associated with CD symptoms ( $\beta = .316, p < .05$ ) when demographic variables and level of acculturation were controlled.

### *Dimensional Classification*

Dimensional ratings of child behavior were also predicted by sociodemographic variables, level of acculturation and parenting. First, CBCL externalizing problems profile scores were significantly associated with maternal marital status and level of education. Mothers who were married, and those who had less than a high school education or at least some college education reported lower levels of externalizing behavior problems than mothers who were not married and those who had completed up to a high school degree. The authoritarian parenting style also significantly predicted CBCL scores, such that greater use of authoritarian parenting was associated with higher scores on the CBCL externalizing problems scale (Table 10).

Regression models including parenting practices yielded similar results (Table 11). First, maternal marital status and level of education significantly predicted CBCL externalizing problems, such that married mothers and those who had completed at least some college education reported lower levels of these problems. Level of acculturation was positively associated with attention problems on the CBCL. Finally, verbally hostile parenting practices were positively associated with externalizing problems.

Attention problems on the CBCL were not predicted by sociodemographic or parenting variables, but were predicted by level of acculturation. Higher levels of

acculturation predicted higher levels of mother-reported attention problems (Table 12 and 13).

## Discussion

This study examined the ability of parenting to predict child attention and behavior problems in Latino families. In doing so, we examined both global parenting styles (based on Baumrind's typology) and specific parenting practices. Also, sociodemographic variables and level of acculturation were considered in all analyses to examine and control for their influences. Results contribute to the growing body of literature questioning the applicability of Baumrind's typology to Latino parents. In addition, the present study highlights the importance of considering level of acculturation when examining these associations within this population.

Results of the current study are partially consistent with current parenting and child behavior literature. In general, sociodemographic variables were marginally associated with parenting and child behavior problems. Significant associations between these variables were all in the expected direction based on previous literature, with some exceptions. First, income level was not associated to parenting or child behavior problems. Although some of the available literature examining these factors suggests a significant association between income and use of harsh and inconsistent discipline (e.g., Lempers et al., 1989), other research failed to find an association between income and parenting (Varela et al., 2004). Thus, the finding that income was not related to parenting is not necessarily surprising, given the inconsistencies in previous research findings. With regard to child behavior problems, research has generally found a significant negative association with income (Eamon & Mulder, 2005; Velez et al., 1989),

suggesting higher levels of behavior problems among children in low-income families. However, in the present study, the range of income was fairly limited to lower income levels, which may account for the lack of findings related to income.

The positive association between maternal age at first birth and CD was surprising, as it is contrary to what has been found in much of the existing research in this area (e.g., Wackschlag et al., 2000). However, it is believed that this finding is a function of the relationship between maternal and child age and child behavior. Specifically, a significant positive association was found between child age and CD symptoms, suggesting that mothers reported more CD symptoms for older children. Further, a significant positive association was found between current maternal age and child age, which is not surprising, given that older mothers are likely to have older children. The association between maternal age at first birth and child CD symptoms is therefore thought to be a function of this association. This is supported by the finding that current maternal age was strongly positively associated with maternal age at first birth.

Level of acculturation significantly predicted some parenting variables and most child behavior problems, highlighting the importance of considering acculturation in research among Latinos. Results consistently suggested that level of acculturation was positively associated to authoritative parenting practices (i.e., warmth/support and reasoning induction) and negatively related to authoritarian practices (i.e., verbal hostility), but not general parenting styles. These findings are consistent with recent findings in a similar study by Calzada and Eyberg (2002), in which higher levels of acculturation were associated with increased use of warm/supportive and reasoning practices, but not with general parenting style. This study contributes to the literature by

examining this relationship with regard to child behavior problems. Results of this study indicated that level of acculturation is an important factor in predicting child behavior problems in this sample and therefore should be considered in research of this kind.

Indeed, level of acculturation also predicted total ADHD symptoms and ADHD hyperactive/impulsive symptoms, ODD and CD symptoms, and CBCL externalizing and attention problems reported by mothers. Of course, given our reliance on maternal reports of child behavior, these findings may indicate either that acculturation predicted child behavior or simply mothers' perceptions of child behavior. Perceptions and evaluations of child behavior are undoubtedly influenced by cultural values and expectations regarding appropriate child behavior. Indeed, research suggests that problem behavior among children is viewed differently depending on a mother's orientation toward a particular culture, which represents an important component of acculturation (Schmitz & Velez, 2003). Further, Arcia & Fernandez (2003) highlight the notion that parental evaluations of problematic child behavior are at least partially based on a comparison to other children and feedback from their "social world". Again, this is undoubtedly influenced by the cultural values and ideals of the people in that social environment. Thus, level of acculturation likely plays an important part in the way Latino mothers perceive and report problematic child behavior.

Previous literature suggesting both direct and indirect relationships between maternal level of acculturation and child behavior problems should also be considered when interpreting the association between acculturation and child behavior. For example, a study examining this association with regard to antisocial behavior among Latino adolescents found a direct relationship between lower levels of maternal

acculturation and increased levels of antisocial behavior (Keegan-Eamon & Mulder, 2005). However, the authors note that maternal level of acculturation was also associated with marital problems, and use of hostile parenting, which have both been consistently linked to child behavior problems. Further, findings of their study indicated a significant association between “economic pressure” and maternal depression, which was also associated with increased use of hostile parenting. Taken together with findings suggesting that acculturation is associated to commonly-used indicators of economic status (e.g., educational and occupational status; Gonzalez, Knight, Morgan-Lopez, Saenz, & Sirolli, 2001) and that stress associated with the acculturation process may precipitate depressed mood in Latino adults (Hovey, 2000), these findings suggest that there may be a complex interaction between several sociodemographic and family interaction variables (i.e., parenting, marital functioning) that may be mediated by factors associated with acculturative stress. This further suggests that the influence of these interacting variables on child behavior problems is equally complex.

A third, and equally plausible argument, is the possibility that a “mismatch” in levels of acculturation between children and their parents has an impact on parent-child interactions. Indeed, research suggests that differences in level of acculturation between children and parents may increase levels of family conflict, use of ineffective parenting, and child behavior problems (Dinh, Roosa, Tein, & Lopez, 2002), though this is poorly understood and may additionally be related to other family and environmental factors. There are likely several additional plausible arguments, highlighting the relative lack of understanding regarding the process of acculturation among Latino families. Thus, results of this study highlight the need to consider level of acculturation in examining



parenting characteristics and child behavior problems within Latino populations, as well as interactions between acculturation and environmental/contextual variables.

Results of this study also suggested significant associations between parenting and child behavior problems in Latino families, many of which were consistent with relationships found in the literature on Caucasian families. First, results regarding associations between parenting and ADHD symptoms suggest that hyperactive/impulsive symptoms were associated with greater use of physically coercive strategies and that inattention was positively associated with verbal hostility, though negatively associated with non-reasoning practices. This is an interesting pattern of results, which highlights differential associations between specific parenting practices and child behavior. Given that data collection for the present study was conducted at one time point, inferences about the causal direction of influence or reciprocal nature of these associations can not be drawn. Most empirical research indicates that there is a bi-directional relationship between child behavior and family-related variables, such that problematic child behavior may exert an influence on family functioning and vice versa (Whalen & Henker, 1999). More specifically, parenting behaviors may both influence and be influenced by negative child behavior (Chamberlain & Patterson, 1995; Patterson, DeBaryshe, & Ramsey, 1989). For example, hyperactive and impulsive children likely cause significant disruptions within the home environment, given the nature of these problems. Further, inattentive symptoms may be associated with higher levels of frustration on the part of parents when having to repeat instructions or refocus the child's attention on a continuous basis. In addition, inattention may sometimes be perceived as active noncompliance when children fail to follow through on parental instructions. These problems may be

viewed as particularly intolerable within Latino families that may value “proper demeanor” and respect for authority (Harwood et al., 2002). On the other hand, mothers of children who display disruptive behavior problems report higher levels of parenting stress, negativity, and depressed mood (Johnston & Pelham, 1990; Johnston et al., 2002; Ross, Blan, McNeil, Eyberg, & Hembree-Kigin, 1998), which have been associated with maladaptive parenting practices (Christensen et al., 1983; McLoyd, 1998; Morgan, Robinson, & Aldridge, 2002).

Interestingly, ODD symptoms, rated on the DBRS, were predicted by *both* permissive and authoritative parenting styles. This is a surprising finding, as authoritative parenting was not expected to be associated with child behavior problems. This finding is particularly interesting in light of the fact that previous research generally highlights racial and ethnic differences with regard to use and associated outcomes of authoritarian parenting, but not with regard to authoritative parenting, which has typically been associated with positive child outcomes. In examining specific parenting practices associated with child behavior problems, results indicated significant positive correlations between the use of reasoning and democratic participation practices and ODD symptoms, but no association with warm and supportive practices. The following possible explanation for this finding is offered cautiously, given the lack of available literature in this area. It is argued that reasoning and democratic participation practices may not be congruent with the traditional, hierarchical family structure of Latino families, in which there are clear boundaries between authority figures (i.e., parents) and children (Lindahl & Malik, 1999). Considered together with research suggesting that Latino mothers highly value respect and obedience (Gonzalez-Ramos, Zayas, & Cohen, 1998), it is

believed that these authoritative practices may be a departure from the firm control of traditional Latino parenting aimed at instilling “*respeto*”, which may actually be associated to maladaptive child outcomes (e.g., ODD behavior) in Latino children. Indeed, as discussed previously, research suggests that a firm (hierarchical) style of parenting, characterized by the presence of a clear authority figure with little or no input from children, was associated with behavior problems in Caucasian and biethnic children, but not among Latino children, suggesting that this parenting style may be more adaptive among Latino families (Lindahl & Malik, 2002; McLoyd, Cauce, Takeuchi, & Wilson, 2000). It has also been suggested that this style of firm parenting may be particularly adaptive among families living in low-income, stressful and potentially dangerous neighborhoods (Knight et al., 2001), as is the case with many Latino families living in the U.S. (U.S. Census, 2000). This argument is also supported by the finding that permissive parenting (indulgent practices) predicted almost all behavior problems in this sample, while authoritarian parenting only predicted CD symptoms.

Analyses using dimensional ratings of child behavior (i.e., CBCL profile scores) were similar to those using DSM-IV based measures, with a few exceptions. First, in this set of analyses, parenting did not predict attention problems, but did predict elevations on the externalizing problems scales. The authoritarian parenting style and several specific parenting practices significantly predicted behavior problems in these analyses. Specifically, authoritarian parenting style and verbally hostile and physically coercive practices, predicted elevations on the externalizing problems scale. Taken together, results of these analyses suggest associations similar to what has been found in the

general parenting literature conducted on primarily Caucasian families (e.g., Baumrind, 1971; Darling & Steinberg, 1993; Robinson et al., 1995; Petterson et al., 1992).

Given the interesting pattern of results, the current study underscores the need to examine parenting styles and practices among Latino parents more carefully. Indeed, as noted earlier, Latino parents have been characterized as authoritative, authoritarian, and permissive parents in previous research. Further, none of these styles have consistently been linked to specific child outcomes in the small body of available literature. Thus, results of the current study call attention to the need to examine these styles cross-culturally. Indeed, though not specific to Latinos, some cross-cultural literature questions the appropriateness of a “dichotomy” between authoritarian and authoritative parenting styles (e.g., Peterson, Steinmetz, & Wilson, 2003), potentially suggesting the presence of different constellations of parenting practices that are different from those described by Baumrind’s typology. However, this argument is not yet supported by empirical research, though it is suggested by the lack of consistent findings. Thus, research supports the notion that specific parenting practices should be examined more carefully in order to gain a more accurate understanding of parenting within Latino families (e.g., Calzada & Eyberg, 2002). This study extends that argument by adding that child behavior problems should also continue to be examined in light of both general parenting styles *and* specific parenting practices. Thus, future research efforts should focus on gaining a better understanding of associations between specific parenting behaviors and child outcomes. In addition, future research should also focus on conducting factor analyses to examine styles, or constellations of parenting practices, that may more accurately capture parenting within Latino populations than the styles we examined here.

## Limitations and Future Research

The current study contributes to the understanding of parenting and child behavior problems in Latino families generally, and broadens the understanding of the role of acculturation in this relationship. However, there are several notable limitations of this study. First, the sample included in this study was very ethnically diverse (i.e., from several countries of origin). As discussed previously, this is a common problem in research conducted among Latino populations, despite research indicating important differences in many domains (Harwood et al., 2002). Although this is an important limitation, given the relative difficulty of recruiting large, ethnically diverse samples, research within these groups must proceed one step at a time. Indeed, research conducted on Latinos in general provides valuable information and generates research questions that can be examined within ethnic groups.

Another important limitation of this study is related to the sole use of maternal reports of parenting and child behavior. First, this may be problematic given that mothers may report greater positive parenting strategies and fewer negative practices as a function of reporting bias. In addition, lack of observational child behavior data or data collected over several time points prevents examination of reciprocal interactions between parenting behavior and child behavior. While collecting this type of data is ideal, community research is often limited by the need to keep study procedures relatively concise, especially in light of limited resources for data collection. Indeed, this study was conducted at various churches and other community organizations, at which space and time restrictions rendered data collection particularly difficult. Although limited in this regard, the present study provides valuable information with regard to self-reported

parenting practices of a community sample of Latino mothers. Future studies should utilize a comprehensive approach to examining parenting and child behavior by gathering various forms of data, including observational data.

An additional problem is the lack of information regarding paternal parenting within Latino families. Indeed, it has been pointed out that Latino fathers are commonly excluded from research (Harwood et al., 2002), despite their important role in overall family functioning and in parenting children. Future studies should attempt to gather information about parenting among Latino fathers as well.

Given the discussion above regarding level of acculturation and possible interactions with maternal stress and depression, both commonly associated with more negative and hostile parenting, this study is significantly limited by the fact that stress and depression were not measured. It is of note that the Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996) was initially included in the packet of questionnaires at the outset of the study, but was dropped when initial data collection efforts demonstrated some participant attrition and/or excessive completion time as a result of the number of measures.

Levels of child behavior problems in this sample were relatively low, as was expected with a community sample. This presents some challenges to generalizability to children with clinically elevated behavior problems. Given higher levels of behavior problems among clinical samples, future research should examine parenting and child behavior within clinical samples of Latino children. This research will allow for comparison of parenting among community versus clinical samples of Latino families, while considering important differences in level and presentation of child behavior

problems. In addition, families presenting to clinical treatment settings are likely to have higher levels of other problems (e.g., parental psychopathology) that should be considered in this research. Despite this limitation, significant associations were detected in the present study. In addition, 21% of the children had at least six symptoms of ADHD, 7% had at least four symptoms of ODD and 3% had at least three symptoms of CD, representing the respective DSM-IV clinical cut-off points. Therefore, this study contributes to what is still a small body of literature regarding child behavior problems among Latino children. Indeed, this study presents preliminary understanding of parenting variables that may be associated with *emerging* child behavior problems in Latino children prior to reaching clinical levels. Thus, this information may be particularly useful in informing early intervention strategies for this population.

Finally, it is important to note that some of the measures used in this study did not have adequate psychometric support for use with Spanish-speaking Latino populations. This is a commonly encountered problem when conducting research with this population. However, the English and Spanish-language measures used in this study have all been used in previously published research and will likely continue to gather psychometric support.

Despite these limitations, results demonstrate important associations between sociodemographic factors, acculturation, parenting and child behavior that warrant continued research attention among Latino groups. In addition, results of the present study highlight important factors that should be considered when treating Latino children with disruptive behavior problems. First, clinicians should be careful to conduct a comprehensive assessment with children and their families that includes a thorough

understanding of environmental factors that may influence family functioning and the development of child behavior problems. Indeed, considering the associations found between SES, parenting and child behavior in the present study, it is essential to understand how these factors may interact within each family in planning treatment strategies.

Along the same lines, level of acculturation of Latino parents (and children) should be carefully considered with regard to how it may play a role in parenting and child behavior problems. In the present study, level of acculturation was significantly associated to parenting and most child behavior problems. Thus, clinicians should also be sure to consider level of acculturation and assess its potential influence on parental stress and psychopathology, parenting and negative parent-child interactions, which have all been implicated in the development of child behavior problems.

Finally, the present study highlights a need for clinicians to consider parenting among Latino families by first examining specific parenting practices, rather than utilizing a general style to describe parenting. Indeed, if clinicians apply one parenting style to Latino clients, important practices which may not be associated with that style may be overlooked. Until a better understanding of general styles that appropriately describe Latino parenting can be established, clinicians should be careful not to draw conclusions or base treatment recommendations on their application of styles that have not been consistently supported among Latino parents. This may be particularly important when planning behavioral parent training in treating child behavior problems.



Table 1

## Maternal Demographic and Ethnic Characteristics

	N (%)	M	SD
Age		33	6.2
Age at First Birth		22	4.8
Total Family Income		\$30, 000	\$18,000
Marital Status			
Not Married	56 (52)		
Married	48 (45)		
Employment Status			
Full-Time	59 (55)		
Part-Time	22 (21)		
Not Working	25 (24)		
Level of Education			
Graduated High School	37 (35)		
Some College	34 (32)		
Less than High School	30 (28)		
Ethnic Characteristics			
Central American	65 (57)		
Mexican	16 (15)		
Caribbean	14 (12)		
South American	13 (12)		

Table 2

## Child Demographic and Behavioral Characteristics

	N (%)	M	SD
<b>Gender</b>			
Male	60 (56.0)		
Female	47 (44.0)		
Age		9	2.0
DSM-IV ADHD Symptoms		3	3.7
$\geq 6$ ADHD Symptoms	22 (20.0)		
DSM-IV ODD/CD Symptoms		1	2.0
$\geq 4$ ODD Symptoms	7 (6.5)		
$\geq 3$ CD Symptoms	3 (2.8)		
CBCL Externalizing Problems		48	9.7
$T \geq 60$	14 (13.5)		
CBCL Attention Problems		53	4.9
$T \geq 60$	17 (16.3)		

Table 3

Means and Standard Deviations of Parenting Styles and Parenting Dimensions Scores

	M	SD
Authoritative Parenting Style	3.97	.52
Warmth/Support	4.31	.62
Reasoning/Induction	4.32	.64
Democratic Participation	3.28	.74
Authoritarian Parenting Style	1.72	.54
Physical Coercion	1.60	.62
Verbal Hostility	1.88	.76
Non-reasoning/Punitive	1.70	.74
Permissive (Indulgent)	2.02	.65

Table 4. Correlations Between DBRS and CBCL Behavior Ratings

	ODD Sx	CD Sx	Externalizing Problems	Attention Problems
ADHD Sx	.684**	.488**	.585**	.568**
ODD Sx		.651**	.552**	.435**
CD Sx			.435**	.357**
Externalizing Problems				.647**

\*\* p < .01.

Table 5. Correlations Between Parenting Styles and Dimensions on the PSDQ

	Warmth/ Support	Reasoning/ Induction	Democratic Participation	Authoritarian	Physical Coercion	Verbal Hostility	Non-reasoning/ Punitive	Permissive
Authoritative	.800**	.839**	.725**	-.258**	-.164	-.213*	-.214*	-.078
Warmth/Support		.667**	.280**	-.301**	-.208**	-.228*	-.258*	-.170
Reasoning/Induction			.355**	-.217*	-.073	-.259**	-.154	-.093
Democratic Participation				-.104	-.108	-.034	-.103	.059
Authoritarian					.805**	.727**	.793**	.314**
Physical Coercion						.369**	.563**	.234*
Verbal Hostility							.275**	.412**
Non-reasoning/Punitive								.077

\*  $p < .05$ . \*\*  $p < .01$ .

Table 6

Hierarchical Regression Analyses for Demographic Characteristics, Acculturation, and Parenting  
Predicting Styles Predicting DSM-IV Total ADHD Symptoms

	$\beta$	R <sup>2</sup>	R <sup>2</sup> $\Delta$	F $\Delta$
Step 1		.112	.112	1.60
Age at first birth	.111			
Marital status	.026			
Level of education <sup>a</sup>				
Less than high school	.037			
Some college	-.217			
College graduate/ graduate school	-.196			
Employment status <sup>b</sup>				
Not working	.101			
Working part-time	-.174			
Step 2		.182	.070	7.55**
Acculturation	.335**			
Step 3		.221	.039	1.41
Authoritative	.034			
Authoritarian	.031			
Permissive	.209			
Overall		F (11, 85) = 2.189*		

<sup>a</sup>Reference group = High school degree <sup>b</sup>Reference group = Working full time

\* p < .05. \*\* p < .01.

Table 7

Hierarchical Regression Analyses for Demographic Characteristics, Acculturation, and Parenting Practices  
Predicting DSM-IV Total ADHD Symptoms

	$\beta$	R <sup>2</sup>	R <sup>2</sup> $\Delta$	F $\Delta$
Step 1		.112	.112	1.60
Age at first birth	.156			
Marital status	-.034			
Level of education <sup>a</sup>				
Less than high school	.105			
Some college	-.297*			
College graduate/ graduate school	-.200			
Employment status <sup>b</sup>				
Not working	.193			
Working part-time	-.201			
Step 2		.182	.070	7.55**
Acculturation	.439**			
Step 3		.284	.101	1.66
Warmth/Support	.071			
Reasoning/Induction	.050			
Democratic Participation	-.103			
Physical Coercion	.173			
Verbal Hostility	.192			
Non-reasoning/ Punitive	-.292*			
Indulgent	.131			
Overall		F (11,85) = 2.137*		

<sup>a</sup> Reference group = High school degree <sup>b</sup> Reference group = Working full time

\*  $p < .05$ . \*\*  $p < .01$ .

Table 8

Hierarchical Regression Analyses for Demographic Characteristics, Acculturation, and Parenting Styles  
Predicting DSM-IV Total ODD/CD Symptoms

	$\beta$	R <sup>2</sup>	R <sup>2</sup> $\Delta$	F $\Delta$
Step 1		.083	.083	1.51
Age at first birth	.155			
Marital status	-.101			
Level of education <sup>a</sup>				
Less than high school	-.022			
Some college	-.035			
College graduate/ graduate school	-.144			
Employment status <sup>b</sup>				
Not working	.133			
Working part-time	.024			
Step 2		.108	.025	2.48
Acculturation	.197			
Step 3		.221	.113	4.12**
Authoritative	.230*			
Authoritarian	.094			
Permissive	.266**			
Overall	F (15,81) = 2.422**			

<sup>a</sup> Reference group = High school degree <sup>b</sup> Reference group = Working full time

\* p < .05. \*\* p < .01.



Table 9

Hierarchical Regression Analyses for Demographic Characteristics, Acculturation, and Parenting Practices  
Predicting DSM-IV Total ODD/CD Symptoms

	$\beta$	R <sup>2</sup>	R <sup>2</sup> $\Delta$	F $\Delta$
Step 1		.083	.083	1.51
Age at first birth	.203			
Marital status	-.150			
Level of education <sup>a</sup>				
Less than high school	.034			
Some college	-.105			
College graduate/ graduate school	-.156			
Employment status <sup>b</sup>				
Not working	.220			
Working part-time	.008			
Step 2		.108	.025	2.48
Acculturation	.271*			
Step 3		.275	.167	2.66*
Warmth/Support	.166			
Reasoning/Induction	.106			
Democratic Participation	.000			
Physical Coercion	.225			
Verbal Hostility	.162			
Non-reasoning/ Punitive	-.237			
Indulgent	.204			
Overall		F(15, 81) = 2.046*		

<sup>a</sup> Reference group = High school degree <sup>b</sup> Reference group = Working full time

\*  $p < .05$ .

Table 10

Hierarchical Regression Analyses for Demographic Characteristics, Acculturation, and Parenting Styles  
Predicting CBCL Externalizing Problems

	$\beta$	R <sup>2</sup>	R <sup>2</sup> $\Delta$	F $\Delta$
Step 1		.185	.185	2.88**
Age at first birth	.116			
Marital status	-.218*			
Level of education <sup>a</sup>				
Less than high school	-.276*			
Some college	-.318**			
College/graduate school	-.015			
Employment status <sup>b</sup>				
Not working	.066			
Working part-time	.088			
Step 2		.200	.015	1.69
Acculturation	.161			
Step 3		.281	.081	3.19*
Authoritative	.088			
Authoritarian	.304**			
Permissive	.024			
Overall		F (11, 85) = 3.023**		

<sup>a</sup> Reference group = High school degree <sup>b</sup> Reference group = Working full time

\*  $p < .05$ . \*\*  $p < .01$ .

Table 11

Hierarchical Regression Analyses for Demographic Characteristics, Acculturation, and Parenting Practices  
Predicting CBCL Externalizing Problems

	$\beta$	R <sup>2</sup>	R <sup>2</sup> $\Delta$	F $\Delta$
Step 1		.185	.185	2.88**
Age at first birth	.128			
Marital status	-.290**			
Level of education <sup>a</sup>				
Less than high school	-.211			
Some college	-.418**			
College/graduate school	-.006			
Employment status <sup>b</sup>				
Not working	.136			
Working part-time	.059			
Step 2		.200	.015	1.69
Acculturation	.294*			
Step 3		.343	.142	2.51*
Warmth/Support	.140			
Reasoning/Induction	.008			
Democratic Participation	-.046			
Physical Coercion	.160			
Verbal Hostility	.400**			
Non-reasoning/ Punitive	-.119			
Indulgent	-.006			
Overall		F (15, 81) = 2.813**		

<sup>a</sup> Reference group = High school degree <sup>b</sup> Reference group = Working full time

\*  $p < .05$ . \*\*  $p < .01$ .

Table 12

Hierarchical Regression Analyses for Demographic Characteristics, Acculturation, and Parenting Styles  
Predicting CBCL Attention Problems

	$\beta$	R <sup>2</sup>	R <sup>2</sup> $\Delta$	F $\Delta$
Step 1		.105	.105	1.49
Age at first birth	.164			
Marital status	-.151			
Level of education <sup>a</sup>				
Less than high school	-.137			
Some college	-.166			
College/graduate school	-.185			
Employment status <sup>b</sup>				
Not working	.167			
Working part-time	.098			
Step 2		.165	.060	6.32***
Acculturation	.306**			
Step 3		.180	.015	.535
Authoritative	-.112			
Authoritarian	.037			
Permissive	.024			
Overall		F (11, 85) = 1.698		

<sup>a</sup> Reference group = High school degree <sup>b</sup> Reference group = Working full time

\*\* p < .01. \*\*\* p < .001.

Table 13

Hierarchical Regression Analyses for Demographic Characteristics, Acculturation, and Parenting Practices  
Predicting CBCL Attention Problems

	$\beta$	R <sup>2</sup>	R <sup>2</sup> $\Delta$	F $\Delta$
Step 1		.105	.105	1.49
Age at first birth	.161			
Marital status	-.165			
Level of education <sup>a</sup>				
Less than high school	-.158			
Some college	-.217			
College/graduate school	-.215			
Employment status <sup>b</sup>				
Not working	.169			
Working part-time	.131			
Step 2		.165	.060	6.32***
Acculturation	.285**			
Step 3		.213	.049	.717
Warmth/Support	.217			
Reasoning/Induction	-.279			
Democratic Participation	-.048			
Physical Coercion	.027			
Verbal Hostility	-.012			
Non-reasoning/ Punitive	.042			
Indulgent	.045			
Overall		F (15, 81) = 1.465		

<sup>a</sup> Reference group = High school degree <sup>b</sup> Reference group = Working full time

\*\* p < .01. \*\*\* p < .001.

## Appendix

The same analytic strategy was taken to examine the prediction of internalizing problems from sociodemographic variables, level of acculturation and parenting. First, preliminary linear regression analyses were conducted to examine the ability of sociodemographic variables to predict the use of each of the parenting styles and practices (i.e., sub-factors). Sociodemographic variables (e.g., maternal age at first birth, marital status, total family income, level of education, and employment status) were entered in step 1 of a hierarchical regression model. Given a negatively skewed distribution in level of income, log transformations of income were used in all analyses. Categorical variables (i.e., marital status, level of education, and employment status) were dummy-coded. In addition, acculturation was entered in step 2, in order to account for level of acculturation in predicting parenting. Finally, those sociodemographic variables that were found to be most significantly associated with maternal parenting style and use of parenting practices in the preliminary regression analyses were treated as covariates (e.g., entered on first step) in a hierarchical regression model examining the ability of maternal parenting style and parenting practices to predict externalizing behavior among Latino children, while accounting for sociodemographic variables and level of acculturation. These analyses were conducted using two sets of general models, with one set examining parenting styles as predictors of child behavior problems and the second set examining parenting practices. Thus, sociodemographic variables were entered on step 1, level of acculturation was entered on Step 2, and parenting style was entered on

Step 3 in the first set of models. The second set of models also included sociodemographic variables on Step 1 and acculturation on Step 2, but included parenting practices (i.e., PSDQ sub-factors) on Step 3.

Results of these analyses suggested significant associations with sociodemographic variables and parenting, but not with level of acculturation (Table A1), but not with level of acculturation. Level of acculturation did not predict internalizing problems. Analyses examining the ability of parenting styles to predict these problems indicated that maternal employment status significantly predicted elevations on this scale, such that mothers who were not working or were working part time reported higher levels of these problems than mothers who work full time. With regard to parenting style, authoritarian parenting was associated with higher levels of reported internalizing problems.

Analyses examining parenting practices suggested similar results. First, several sociodemographic variables predicted elevations on this scale. Maternal age at first birth was positively associated with reported internalizing problems. Maternal marital status predicted also these problems, such that unmarried mothers reported more problems in this area. Further, maternal employment status significantly predicted these problems, suggesting that not working and those who were working part time reported more internalizing problems. Several parenting practices predicted internalizing problems. First, both democratic participation and non-reasoning/punitive practices were negatively associated with internalizing problems. Finally, physically coercive practices were positively associated with internalizing problems.

Results of these analyses suggest important associations between sociodemographic variables, parenting, and child internalizing problems. These results will be explored further in future data analyses.



A1 Hierarchical Regression Analyses for Demographic Characteristics, Acculturation, and Parenting Styles Predicting CBCL Internalizing Profile Score

	$\beta$	R <sup>2</sup>	R <sup>2</sup> $\Delta$
Step 1		.181	.181
Age at first birth	.115		
Marital status	-.180		
Level of education <sup>a</sup>			
Less than high school	-.169		
Some college	-.153		
College graduate/graduate school	-.074		
Employment status <sup>b</sup>			
Not working	.228*		
Working part-time	.337*		
Step 2			
Acculturation	.070	.186	.005
Step 3		.193	.006
Authoritative	.077		
Authoritarian	-.021		
Permissive	.012		
Warmth/Support			
Reasoning/Induction			
Democratic Participation			
Physical Coercion			
Verbal Hostility			
Non-reasoning/ Punitive			
Indulgent			
Overall		F (11, 85) = 1.844	

<sup>a</sup> Reference group = High school degree <sup>b</sup> Reference group = Working full time

\* p < .05.

A2 Hierarchical Regression Analyses for Demographic Characteristics, Acculturation, and Parenting Predicting CBCL Internalizing Profile Score

	$\beta$	R <sup>2</sup>	R <sup>2</sup> $\Delta$
Step 1		.181	.181
Age at first birth	.226*		
Marital status	-.265**		
Level of education <sup>a</sup>			
Less than high school	-.104		
Some college	-.265*		
College graduate/graduate school	-.110		
Employment status <sup>b</sup>			
Not working	.380***		
Working part-time	.331**		
Step 2		.186	.005
Acculturation			
Step 3		.336	.150
Authoritative			
Authoritarian			
Permissive			
Warmth/Support	.236		
Reasoning/Induction	.064		
Democratic Participation	-.235*		
Physical Coercion	.265*		
Verbal Hostility	.147		
Non-reasoning/ Punitive	.382**		
Indulgent	.051		
Overall	F (15, 81) = 2.730**		

<sup>a</sup> Reference group = High school degree <sup>b</sup> Reference group = Working full time

\* p < .05. \*\* p < .01. \*\*\* p < .001.

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