

Family Functioning in Latino Families of Children with ADHD: The Role of Parental Gender and Acculturation

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FAMILY FUNCTIONING IN LATINO FAMILIES OF CHILDREN WITH
ADHD: THE ROLE OF PARENTAL GENDER AND ACCULTURATION

by

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ABSTRACT
FAMILY FUNCTIONING IN LATINO FAMILIES OF CHILDREN WITH ADHD:
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Marquette University, 2018

It has been well established that parents of children with ADHD report significantly higher levels of parenting stress (Heath, Curtis, Fan, & McPherson, 2015) and chaos in the home (Wirth et al., 2017) than parents of children without ADHD. Parents of children with ADHD also report feeling less efficacious in their parenting abilities compared to parents of children without ADHD (Primack et al., 2012). To date, a majority of the literature on ADHD has focused on European American children and families, resulting in a paucity of research and clinical practice with ethnic minority families of youth with ADHD, specifically among Latinos (Alegría et al., 2007; Eiraldi et al., 2006). The current study aimed to build upon recent research on ADHD among Latino children and their families by exploring contextual and cultural factors, such as parental gender and acculturation, which may account for variations in parenting experiences among Latino parents of children with ADHD.

The present study utilized secondary data analysis to analyze pre-treatment ratings of parenting stress, home chaos, and parental efficacy among a sample of Latino mothers and fathers ($n = 46$), who were recruited as a part of a larger study. Results indicated that Latina mothers of children with ADHD report higher levels of parenting stress than Latino fathers of children with ADHD; however, no significant parental gender differences were found in pre-treatment ratings of parental efficacy and home chaos. Additionally, several significant relationships were found between parental acculturation, parental gender and parenting variables. Clinical implications of these findings are discussed.

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TABLE OF CONTENTS

ACKNOWLEDGMENTS	i
LIST OF TABLES	iii
CHAPTER	
I. INTRODUCTION	1
A. ADHD	2
B. Family Functioning Within Families of Children with ADHD	3
a. Parenting Stress.....	3
b. Parental Efficacy	4
c. Home Chaos.....	6
C. Latino Mental Health Disparities.....	7
D. Acculturation.....	10
E. Current Study and Hypotheses.....	12
II. METHOD	13
A. Participants.....	13
B. Procedure	15
C. Measures	15
III. RESULTS	19
A. Preliminary Analyses	20
B. Primary Analyses	21
IV. DISCUSSION	25
A. Descriptive Information for Parenting and Acculturation Variables Among Latino Parents of Children with ADHD (Aim 1).....	26
B. Parental Gender Differences in Parenting and Acculturation Variables (Aim 2).....	28
C. Relationships Between Parenting and Acculturation Variables (Aim 3).....	32
D. Limitations	33
E. Clinical Implications and Future Directions	35
V. BIBLIOGRAPHY	37

LIST OF TABLES

Table 1. Parent Demographic Variables	14
Table 2. Child Demographic Variables	15
Table 3. Parenting and Acculturation Variables: Descriptive Statistics	20
Table 4. Correlations of Demographic Variables with Maternal Parenting and Acculturation Variables	21
Table 5. Correlations of Demographic Variables with Paternal Parenting and Acculturation Variables	21
Table 6. Paired-Samples T-Tests for Maternal and Paternal Parenting Variables	22
Table 7. Paired-Samples T-Tests for Maternal and Paternal Acculturation Variables	23
Table 8. Correlations of Parental Acculturation with Parenting Variables	24
Table 9. Summary of Multiple Linear Regression Analysis Predicting Maternal Chaos.....	25

Introduction

It has been well-established that the type, frequency, and severity of a child's Attention-Deficit/Hyperactivity Disorder (ADHD) symptoms can be a significant source of stress for parents, particularly for parents of children who exhibit more disruptive, externalizing behaviors (Graziano, McNamara, Geffken & Reid, 2011; Theule, Wiener, Tannock, & Jenkins, 2013). To date, much of the literature on ADHD has focused on European American families, resulting in a paucity of research on ethnic minority families of children with ADHD, specifically among Latinos (Huey & Polo, 2008). This is concerning from a public health perspective, given the most current U.S. Census projections indicate that Latino children will comprise one-third of all U.S. children by the year 2035 and approximately 28% of the total U.S. population by 2050 (Colby & Ortman, 2015).

Research demonstrates that Latino children are diagnosed with ADHD at rates that are lower than those of European American children (Alegría et al., 2007; Bauermeister, 2016; Morgan, Hillemeier, Farkas, & Maczuga, 2013). Furthermore, recent findings have suggested that in comparison to their European American counterparts, Latino children's ADHD symptoms may have a greater impact on their families due to a variety of sociodemographic factors (Hinojosa et al., 2012; Hinojosa, Knapp, & Woodworth, 2015). In light of this, the present study seeks to provide descriptive data on key parenting variables within Latino families of children with ADHD, specifically parenting stress, parental efficacy, and chaos in the home. The role of parental gender and acculturation on these outcome variables also will be explored.

ADHD

As defined in the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychiatric Association, 2013), ADHD is a mental health disorder characterized by persistent, pervasive, impairing, and developmentally excessive levels of hyperactivity, impulsivity, and/or inattention. Epidemiological research demonstrates that ADHD is one of the most commonly diagnosed mental health disorders among children (Merikangas, Nakamura, & Kessler, 2009). While estimates vary, the 2007 National Survey of Children's Health (NSCH) indicated that 8.2% of U.S. children aged 4-17 in the U.S. have a diagnosis of ADHD (Larson, Russ, Kahn, & Halfon, 2011). When left untreated, children with ADHD continue to experience symptoms of the disorder, as well as significant academic, occupational, social, and familial difficulties throughout the course of their childhood and adolescence and into adulthood (Biederman et al., 2012).

Parent management training continues to be considered the preeminent evidence-based psychosocial treatment for ADHD (Evans, Sarno Owens, Wymbs, & Ray, 2017), a treatment in which parents are considered to be the agents of their children's behavioral change (Haack, Villodas, McBurnett, Hinshaw, & Pfiffner, 2017; Heath, Curtis, Fan, & McPherson, 2015). Within this framework, is notable that understanding different family contexts and their impact on developmental trajectories for children with ADHD is pivotal to the success of behavioral interventions (Deault, 2010). Therefore, it is critical to understand patterns of family functioning to ensure that parents are able to maximize benefits of treatment and to optimally tailor behavioral interventions to meet parents' needs.

Family Functioning Within Families of Children with ADHD

Parenting Stress

Abidin (1992) conceptualized parenting stress as the mismatch between perceived demands of parenting and available resources to meet those demands. In accordance with this model, a wealth of research over the past twenty-five years consistently finds that parents of children with ADHD report significantly higher levels of parenting stress than parents of children without ADHD (Anastopoulos et al., 1992, 1993; Heath et al., 2015; Johnston & Mash, 2001; Theule et al., 2013). According to Abidin's model (1992), parenting stress is theorized to originate from the interactions between parent, child, and environmental characteristics (Theule et al., 2013). Although all parents experience parenting stress to some degree, parents who experience parenting stress at consistently elevated levels may suffer psychologically and be less able to implement interventions to help their children (Kazdin 1995). With regard to parental gender differences in parenting stress, a meta-analysis by Theule et al., (2013) concluded that mothers and fathers of children with ADHD report the same amount of parenting stress overall. However, the meta-analysis demonstrated that in comparison to fathers, mothers tend to endorse experiencing greater stress related to factors within their child (e.g., "My child turned out to be more of a problem than I expected"), in addition to total life stress. Greater severity of ADHD symptomatology and ADHD subtypes involving hyperactive and/or impulsive behaviors also have been found to be associated with greater levels of parenting stress (Theule et al., 2013; Weinberger, Gardner, & Gerdes, 2015).

There is limited existing research on the sociodemographic correlates of parenting stress among parents of children with ADHD (i.e., parental age, geographic location,

ethnicity). It has been found that parents of children with ADHD from lower socioeconomic status (SES) groups consistently report greater levels of parenting stress than parents of children from higher SES backgrounds (Baldwin, Brown, & Milan, 1995); however, this is a relationship that remains unclear and merits further exploration (see Johnston & Mash, 2001). In comparison to European American parents of children with ADHD, ethnic minority parents of children with ADHD have been shown to experience greater parental strain, a construct similar to parenting stress (Hinojosa et al., 2012). Given the lack of research that has been conducted with Latino parents of children with ADHD, it is unknown if Latino parents report similar rates of parenting stress, particularly among those from lower SES backgrounds.

Parental Efficacy

Parental efficacy has been broadly defined as a parent's beliefs about their confidence and competence in carrying out parenting tasks (Cohen, Holloway, Domínguez-Pareto, & Kuppermann, 2015; Heath et al., 2015). Previous research has established that parents of children with ADHD have a lower sense of parental efficacy and consistently report feeling more frustrated, worried, upset, worn out, and helpless than parents of children without ADHD (Primack et al., 2012). Significant parental gender differences have been noted in this domain, with mothers of children with ADHD reporting lower parental efficacy than fathers of children with ADHD (Gerdes, Haack, & Schneider, 2012). Given that parents are considered to be the primary agents of change in behavioral parent training interventions for ADHD (Haack et al., 2017), it is critical to understand the role of parental efficacy in these interventions (Gerdes, Haack, & Schneider, 2010). Past research in this area has indicated that parental efficacy poses a

significant influence on parents' perceived ability to incorporate skills learned in an ADHD parent training intervention into their parenting practices, which in turn enables a parent to promote positive behavior changes for their children (Heath et al., 2015). Moreover, parental efficacy has been found to be an important moderator of treatment success for behavioral parent training for ADHD (Primack et al., 2012). Taken together, these findings underscore the need for collecting pre-treatment ratings of parental efficacy, in addition to positively improving and maintaining efficacy in parents of children with ADHD throughout treatment.

A small body of research has examined the sociodemographic correlates of parental efficacy. With regard to differences based on ethnicity, mothers of ethnic minority children with ADHD were found to report greater parental efficacy than mothers of European American children with ADHD within a treatment-seeking sample (Weinberger et al., 2015). A review by Jones and Prinz (2005) suggested that parental efficacy may act as a compensatory factor for mothers and as a protective factor for fathers of children with mental health disorders. More specifically, the authors theorized that among fathers who face parenting a child with challenging behaviors, fathers with higher perceived self-efficacy are protected against experiencing more anxiety than fathers who are less confident in their parenting abilities. However, it is possible that the gender differences noted in this domain also may be due to a potential third variable, such as the degree of parental involvement with the child. This confound may be particularly relevant to Latino families, given research findings that Latina mothers tend to be more involved in their school-aged children's daily lives than Latino fathers (Hossain, Lee, &

Martin-Cuellar, 2015). To date, no research has examined perceptions of parental efficacy in a sample of Latino parents of children with ADHD.

Home Chaos

Home chaos is a multidimensional construct that is typically characterized by features, such as high levels of noise and distractions in the home setting, human crowding and traffic, low levels of predictability in the environment, and lack of family routines (Matheny, Wachs, Ludwig, & Phillips, 1995). Chaos is a component of family functioning that is associated with a variety of negative developmental outcomes for children, particularly when there is a lack of routine and structure in the home setting (Deater-Deckard et al., 2009; Valiente, Lemery-Chalfant, & Reiser, 2007). With regard to its influence on parenting, past research indicates an association between more negative parenting practices and parenting stress among parents residing in environments high in home chaos (Dumas et al., 2005; Valiente et al., 2007). Furthermore, findings from a study by Deater-Deckard, Chen, Wang, and Bell (2012) suggest that the negative consequences of chronic home chaos on cognitive regulation of attention and memory may not be limited to children, and likely extend to mothers and fathers, particularly those from lower SES backgrounds. Recent studies have found that families of children with ADHD report greater levels of chaos in the home than families of children without ADHD and that chaos in the home is related to problem behavior in children, over and above inefficient parenting (Coldwell, Pike, & Dunn, 2006; Mokrova, O'Brien, Calkins, & Keane, 2010; Wirth et al., 2017).

Although ethnic minority and immigrant children are at a higher risk for experiencing chaos in the home, the conceptualization and influence of home chaos may vary substantially across ethnic groups (Weisner, 2010). Indeed, environments that are

deemed developmentally deleterious and chaotic based on Eurocentric criteria may not necessarily be understood as such for Latino families. The extant literature in this area suggests that Latino families may experience differing pathways to the development of home chaos than those of other ethnic minority groups. For instance, results from a study by Haack et al. (2011) demonstrated that Latino families who were more acculturated to Anglo culture experienced greater acculturation stress, which is theorized to lead to more conflict and chaos within the family. Furthermore, the same study found that Latino parents who reported higher levels of chaos in the home were more likely to report clinically elevated levels of externalizing behaviors in their children. However, there is no research to date that examines chaos in the home within a sample of Latino families of children with ADHD.

Latino Mental Health Disparities

In recent years, researchers have begun to examine the underlying causes for the vast disparities in utilization and access to quality health care for ethnic minority individuals in the United States. As defined by Braveman and Barclay (2009), “the term 'health disparities' is used to describe potentially avoidable differences in health among individuals who have different levels of social and economic advantage or disadvantage” (p. S166). Alternately stated, the term describes inequities in health, whereby socially disadvantaged groups (e.g., members of a racial/ethnic group that historically has experienced discrimination; individuals of lower incomes or educational attainment) systematically face poorer health outcomes and/or access to healthcare. Given that Latinos currently face some of the greatest disparities in mental health care access and utilization, the welfare of Latino youth and their families has recently become a growing

concern in research and clinical practice (Flores & TCOPR, 2010; Kouyoumdjian, Zamboanga, & Hansen, 2003). Findings from epidemiological research highlight that Latino youth are significantly less likely to utilize mental health services than their European American peers (Flores & TCOPR, 2010; Kataoka, Zhang, & Wells, 2002; Lopez, Dewey Bergren, & Painter, 2008). This is problematic for a number of reasons, given that mental health is considered to be a central determinant of an individual's well-being and functioning, family relationships, economic productivity, and engagement in society (Alegria, Greif-Green, McLaughlin, & Loder, 2015; Kieling et al., 2011). Moreover, individuals who do not receive needed mental health care services as children are at a greater risk for continuing to experience problems associated with their mental health as adults, which underscores the importance of early detection and intervention (Biederman et al., 2012; Braveman & Barclay, 2009; Kieling et al., 2011).

Significant disparities exist for Latino children regarding access to mental health care, diagnosis and involvement in clinical research, especially pertaining to ADHD. Recent research has shown that Latino children are significantly less likely to receive a diagnosis of ADHD than their European American peers (Bauermeister, 2016). According to data from the Centers for Disease Control and Prevention (2015), 6.3% of Latino children in the United States have a diagnosis of ADHD, in comparison to 11.5% of European American children. These disparities in diagnostic rates in the U.S. are particularly striking given emerging evidence of the disorder's cross-cultural universality and symptom prevalence across ethnicities (Faraone, Sergeant, Gillberg, & Biederman, 2003; Haack et al., 2018). Importantly, these disparities are not limited to diagnostic rates; among children diagnosed with ADHD, Latino children are among the least likely

to receive any formal treatment for ADHD and have decreased levels of adherence to pharmacological interventions (Alegría et al., 2015; Alvarado & Modesto-Lowe, 2017; Bauermeister et al., 2003; Morgan et al., 2013; Stevens, Harman, & Kelleher, 2005).

There are several possible explanations for the disparities between Latino children's mental health care needs and service utilization. Some of the most common barriers are systemic, including challenges with access to reliable transportation, limited parental proficiency in English, limited health insurance, and working long hours at labor-intensive jobs that limit availability to meet with mental health care providers (Alegría et al., 2007; Araujo, Pffiffer, & Haack, 2017; Flores et al., 2002; Gerdes, Lawton, Haack, & Schneider, 2014). Other factors that impact service utilization for Latino children and their families are more culturally-laden, such as the lack of Spanish-speaking and culturally sensitive mental health providers, culturally-based stigma related to psychopathology/mental health services, lack of parental knowledge related to mental illnesses, and immigration and acculturation status (Alegría et al., 2015; Gerdes et al., 2014). Additionally, a qualitative study of Latino parents of children with ADHD by Araujo and colleagues (2017) identified several socio-emotional factors that negatively influenced parents' willingness or ability to seek treatment, such as feelings of guilt and shame related to a perceived role in the development of psychopathology, and experiences of racism in institutional settings. In light of the aforementioned factors contributing to Latino mental health disparities, a growing body of research has attempted to improve access, quality, and adherence to mental health care treatment for Latino families through a process of culturally adapting existing evidence-based mental health treatments, including parent management training for ADHD (Gerdes, Kapke,

Lawton, Grace, & Dieguez Hurtado, 2015).

Acculturation

Recent research has led to mixed findings with regard to the impact of parental acculturation status on children's mental health treatment outcomes (Ho, Yeh, McCabe, & Hough, 2007; Kim, Lau, & Chorpita, 2015). For most immigrants, a process of acculturation occurs upon arrival in a new country or cultural context (Schwartz, Unger, Zamboanga, & Szapocznik, 2010). One of the most widely cited theories of acculturation is Berry's bi-dimensional model, which focuses on acculturation at the individual level (Berry, 1980; Berry, 1997; Berry, 2006). According to this model, an individual's level of acculturation can be measured according to two dimensions: their orientation toward their own group and maintenance of their heritage culture, and their orientation toward other groups and preference for engaging with the new culture (Berry, 2006). Importantly, these dimensions are not static, nor are they mutually exclusive from one another. As Berry (2003) contends, individuals who maintain their native cultural identity while simultaneously developing a positive relationship and involvement with the culture of the receiving society would be considered bicultural.

It is also important to note that processes of acculturation are theorized to transpire on several distinct, yet interdependent levels within an individual (Marín, 1992; Marín & Gamba, 2003; Schwartz et al., 2010). While behavioral acculturation has been studied more extensively throughout the extant literature (i.e., via proxy measures of language usage), contemporary acculturation theorists have underscored the importance of examining acculturation across domains to garner a more nuanced understanding of how these processes occur within an individual (Lawton & Gerdes, 2014; Schwartz et al.,

2010). Indeed, exclusively examining language usage as a proxy measure for acculturation may lead to inaccurate and misleading representations of an individual's level of acculturation given the fluid nature of language usage that may be overly context-dependent (Schwartz et al., 2010). Furthermore, the sole utilization of behavioral acculturation as a measure of an individual's overall level of acculturation fails to reflect other important aspects of acculturation processes, such as cultural values, practices, and beliefs (i.e., cognitive acculturation, Marín & Gamba, 2003; Schwartz et al., 2010), which has led to the recent development of measures that more accurately capture these processes (see Knight et al., 2010).

Acculturation is inherently a developmental process, where receiving-culture acquisition and heritage-culture retention increase, remain stable, or decrease over time (Berry, 1997). In accordance with this understanding of the developmental nature of acculturation, research has begun to progress from one-time, cross-sectional assessments to more dynamic, longitudinal investigations of acculturation over time (Gonzales, Fabrett, & Knight, 2009). Ultimately, it is important to recognize that acculturation is a multifaceted process that is affected by many variables, such as one's socio-economic status, geographic location, macro-level events (e.g., immigration-related legislation, political climate) that can compromise, alter, or accelerate the acculturation process (Lopez-Class, González Castro, & Ramirez, 2011).

A few studies have examined family functioning, incidence of psychopathology, and mental health problem recognition as a correlate of acculturation among youth from immigrant families. While findings are not consistent, most studies demonstrate that higher child U.S. acculturation and/or greater discrepancies in U.S. acculturation between

children and parents (generally reflecting greater child acculturation compared to parent acculturation) are associated with compromised parent-child relationships (Schwartz et al., 2010). Additionally, preliminary data from a study by Haack, Kapke, and Gerdes (2016) found that Latino parents' ratings of increased heritage culture retention and low mainstream U.S. acculturation were predictive of the occurrence of psychopathology among Latino youth.

Notably, children's heritage-culture retention has been associated with more favorable family functioning outcomes in past research (Lawton & Gerdes, 2014). With regard to mental health problem recognition, a study by Schmidt and Velez (2003) found that Latina mothers of children with ADHD at varying levels of acculturation differentially assess specific symptoms of ADHD. Their findings demonstrated that Latina mothers of children with ADHD who were more oriented to mainstream U.S. culture endorsed greater hyperactivity in their children, and that these differences varied based on Latino origin. Specifically, Mexican American and Puerto Rican mothers were more likely than Mexican mothers to report that their children demonstrated impulsive behaviors. However, no research to date has explored the role of parental acculturation on family functioning in a sample of Latino parents of children with ADHD.

Current Study and Hypotheses

The current study seeks to build upon recent research on ADHD among Latino children and their families by exploring contextual and cultural factors, such as parental gender and acculturation, which may account for variations in parenting experiences among Latino parents of children with ADHD. The study makes a new contribution to what is known about family functioning within families of children with ADHD, as little

research has examined these variables in an exclusively Latino sample. The current study first aims to contribute to the limited knowledge base by examining descriptive statistics for parenting and acculturation variables among a sample of treatment-seeking Latino families of school-aged children who have been clinically diagnosed with ADHD. The study also aims to examine parental gender differences in reports of parenting and acculturation variables. Similar to findings from research on European American and other ethnic minority parents of children with ADHD (Baker 1994; Jones & Prinz, 2005; Theule et al., 2013), it is hypothesized that Latina mothers will report higher levels of parenting stress and lower parental efficacy relative to Latino fathers; the role of parental gender on ratings of home chaos and acculturation will be explored as there is insufficient previous research to support a prediction at this time. Finally, the current study aims to explore the relationship between parental acculturation and maternal and paternal ratings of parenting stress, parental efficacy, and home chaos.

Method

Participants

The current study utilized a secondary data analysis of 46 families who participated in a larger research study comparing treatments for Latino families of school-aged children with ADHD in a moderate-sized, urban, Midwestern city. Forty-six mothers and fathers completed measures at the time of the initial assessment. All families self-identified as Latino; the majority of parents in the sample were born outside of the continental United States (91% of mothers and 96% of fathers). Among those parents who were foreign-born, a majority had resided in the United States for over ten years (67% of mothers, 89% of fathers). As measured on the Hollingshead Four Factor Index of

Social Status (1975), the majority of families fell in the lower end of SES ($M = 23.03$, $SD = 9.75$). See Table 1 for additional parent demographic information.

Table 1.

Parent Demographic Variables

Mother age, M (SD)	35.43 (5.37)
Father age, M (SD)	39.48 (7.69)
Mother country/territory of origin, n (%)	
Mexico	37 (80.4%)
Puerto Rico	1 (2.2%)
Other	8 (17.4%)
Father country/territory of origin, n (%)	
Mexico	38 (82.6%)
Puerto Rico	4 (8.7%)
Other	4 (8.7%)
Mother time in US, n (%)	
Born in U.S.	4 (8.7%)
6-10 years in U.S.	11 (23.9%)
More than 10 years in U.S.	31 (67.4%)
Father time in US, n (%)	
Born in U.S.	2 (4.3%)
6-10 years in U.S.	3 (6.5%)
More than 10 years in U.S.	41 (89.1%)
Marital status, n (%)	
Married or cohabitating	37 (80.4%)
Single, separated, divorced, or widowed	9 (19.6%)
Family SES, M (SD)	23.03 (9.8)

Note. $n = 46$

With regard to child demographic characteristics, all children self-identified as Latino and were diagnosed with ADHD by a research team of clinical psychology graduate students and a faculty expert on childhood ADHD as a part of a larger study. Thirty-four children were male and 12 were female; all ranged in age from 5-13 years ($M = 8.13$, $SD = 2.68$). See Table 2 for more child demographic information.

Table 2.
Child Demographic Variables

Child age, <i>M</i> (SD)	8.13 (2.68)
Gender, <i>n</i> (%)	
Male	34 (73.9%)
Female	12 (26.1%)
ADHD subtype, <i>n</i> (%)	
Inattentive	22 (47.8%)
Hyperactive-Impulsive/Combined	24 (52.2%)

Note. *n* = 46

Procedure

After gaining institutional review board approval to conduct the larger study and obtaining consent from parent(s) and assent from children, a graduate student clinician conducted several clinical interviews in Spanish with the children and their parents. Following the interviews, parent(s) completed measures in Spanish assessing their child's ADHD symptomatology, family functioning, and acculturation factors. The measures relevant to the current study are described in more detail below. Each family was compensated with a \$100 Target gift card following completion of the process described above.

Measures

The measures for the current study include a demographic form, Parenting Stress Index-4-Short Form (PSI-4-SF), Parenting Sense of Competence Scale (PSOC), Confusion, Hubbub, and Order Scale (CHAOS), Acculturation Rating Scale for Mexican Americans-II (ARSMa-II), and Mexican American Cultural Values Scale for Adolescents and Adults (MACVS).

Demographic Form. Parents completed a demographic form in Spanish that served to gather demographic information (e.g., marital status, nationality, length of time in U.S., education/employment) about participating children and parents.

Parenting Stress Index-4-Short Form (PSI-4-SF; Abidin, 2012). The Spanish version of the PSI-4-SF, a parent-report measure of parenting stress, was completed by mothers and fathers individually at pre-treatment. It consists of 36 items (e.g., “My child makes more demands on me than most children”) rated on a 5-point Likert scale, ranging from “strongly agree” to “strongly disagree.” The total parenting stress score was examined, with higher scores indicating greater levels of parenting stress (i.e., scores falling in the $\geq 85^{\text{th}}$ -89th percentile range indicate an elevated level of parenting stress; scores falling in the $\geq 90^{\text{th}}$ percentile range indicate a clinically significant level of parenting stress). Sound psychometrics have been reported for the Spanish translation (Díaz-Herrero, Brito de la Nuez, López Pina, Pérez-López, & Martínez-Fuentes, 2010; Kim, Lau, & Chorpita, 2016). The PSI demonstrated good reliability for mothers ($\alpha = .91$) and fathers ($\alpha = .93$) in the present study.

Parenting Sense of Competence Scale (PSOC; Johnston & Mash, 1989).

Mothers and fathers completed the Spanish version of the Parenting Efficacy subscale of the PSOC, a parent-report measure of parental efficacy, at pre-treatment. Parents rated the seven items (e.g., “I meet my own personal expectations for expertise in caring for my child”) that comprise this subscale on a 6-point Likert scale, ranging from “strongly agree” to “strongly disagree.” A mean score was computed, with higher scores suggesting higher perceived parental efficacy (i.e., total score of $\sim 1-2 =$ “not efficacious,” total score $\sim 3-4 =$ “efficacious,” total score $\sim 5-6 =$ “very efficacious”). Good internal consistency

and validity have been reported for the Spanish translation (Haack, Gerdes, Schneider, & Dieguez Hurtado, 2011); the PSOC demonstrated good reliability for mothers ($\alpha = .82$) and fathers ($\alpha = .77$) in the current study.

Confusion, Hubbub, and Order Scale (CHAOS; Matheny, Wachs, Ludwig, & Phillips, 1995). The Spanish version of the CHAOS, a parent-report measure of chaos in the home, was completed by mothers and fathers at pre-treatment. Parents rated 15 items (e.g., “The atmosphere in your home is calm”) on a 6-point scale, ranging from 1 (“strongly agree”) to 6 (“strongly disagree”). All items were summed, with higher scores indicating greater reported chaos in the home (i.e., total score $\sim 15-30$ = low level of chaos, total score $\sim 31-54$ = mild level of chaos, total score $\sim 55-74$ = moderate level of chaos, total score $\sim 75-90$ = high level of chaos). Haack and colleagues (2011) reported good reliability and validity for the Spanish translation of this measure. In the current study, the CHAOS demonstrated acceptable reliability for mothers ($\alpha = .79$) and fathers ($\alpha = .82$).

Acculturation Rating Scale for Mexican Americans-II (ARSMA-II; Cuéllar, Arnold, & Maldonado, 1995). The Spanish version of the ARSMA-II is a 30-item self-report measure completed individually by mothers and fathers at pre-treatment. The ARSMA-II measures an individual’s level of behavioral acculturation by measuring their Mexican orientation (Mexican Orientation Scale [MOS]) and Anglo orientation (Anglo Orientation Subscale [AOS]). The measure consists of items that assess for language preference and use (e.g., “I enjoy speaking English,” “I enjoy speaking Spanish”), as well as ethnic identification (“I like to identify myself as an American,” “I like to identify as Latino”); each item is rated on a 5-point Likert scale ranging from 1 (not at all) to 5

(extremely often /almost always), with higher scores indicating greater orientation to Anglo or Mexican/Latino culture. The MOS and AOS subscales have demonstrated good internal reliabilities ($\alpha = .88$ and $.83$, respectively) (Cuéllar et al., 1995). In an effort to make the measure more appropriate for use with a wider Latino population, researchers have modified the ARSMA-II by substituting “Latino” for “Mexican” or “Mexican American” and have demonstrated that the adapted measure maintains its original psychometric properties (Steidel & Contreras, 2003). In the current study, the measure displayed good reliability for the MOS subscales for mothers ($\alpha = .77$) and fathers ($\alpha = .75$). The measure also demonstrated good reliability for the AOS subscales for mothers ($\alpha = .86$) and fathers ($\alpha = .83$).

Mexican American Cultural Values Scale for Adolescents and Adults

(MACVS; Knight et al., 2010). The Spanish version of the MACVS, a 50 item self-report measure of cultural value orientation and cognitive acculturation, was completed individually by mothers and fathers at pre-treatment. It is comprised of two subscales: Mainstream Values (MV) and Latino Values (LV). Items are rated on a 5-point Likert scale, ranging from 1 “not at all” to 5 “completely believe,” with higher scores indicating greater orientation to Mainstream (Anglo) values or Latino values. Sample items include “Mothers are the main people responsible for raising children” (LV) and “As children get older, their parents should allow for them to make their own decisions” (MV). Strong psychometrics for the Spanish translation have been demonstrated (Knight et al., 2010). In the current study, the MV subscale demonstrated adequate reliability for mothers ($\alpha = .66$) and good reliability for fathers ($\alpha = .88$). Additionally, the LV subscale demonstrated good reliability for mothers ($\alpha = .85$) and fathers ($\alpha = .89$).

Results

Primary Analyses – Descriptives (Aim 1)

In accordance with the first aim of the present study, descriptive analyses were conducted to examine mothers' and fathers' reports of parenting and acculturation experiences. With regard to parenting experiences, both mothers and fathers in the current sample reported moderate levels of parenting stress ($M = 87.11$; $M = 80.02$, respectively), indicated feeling efficacious as parents, ($M = 4.12$; $M = 4.31$, respectively), and reported mild levels of chaos in the home ($M = 42.48$; $M = 41.91$, respectively). With respect to ratings of acculturation, both mothers and fathers in the current sample were more oriented to traditional Latino culture ($M = 4.38$; $M = 4.16$, respectively) than Anglo culture ($M = 2.45$; $M = 2.61$, respectively). Similarly, both mothers and fathers rated their cultural values as being more aligned with Latino values ($M = 3.93$; $M = 4.05$, respectively) than mainstream U.S. values ($M = 2.85$; $M = 3.15$, respectively). See Table 3.

Table 3.
Parenting and Acculturation Variables: Descriptive Statistics

Parenting	<i>M</i> (SD)	Range
Parenting Stress		
Mother	87.11 (18.12)	50.00-130.00
Father	80.02 (20.26)	37.00-124.00
Parental Efficacy		
Mother	4.12 (0.79)	1.86-5.43
Father	4.31 (0.78)	2.43-5.57
Home Chaos		
Mother	42.48 (10.37)	20.00-65.00
Father	41.91 (11.41)	19.00-66.00
Acculturation	<i>M</i> (SD)	Range
Latino Orientation		
Mother	4.38 (0.52)	2.75-5.00
Father	4.16 (0.55)	2.47-5.00
Anglo Orientation		
Mother	2.45 (0.85)	1.31-4.77
Father	2.61 (0.83)	1.62-5.00
Latino Values		
Mother	3.93 (0.40)	3.14-4.78
Father	4.05 (0.44)	3.08-5.00
Mainstream U.S. Values		
Mother	2.85 (0.50)	2.00-3.93
Father	3.15 (0.74)	1.43-4.71

Note. $n = 46$.

Preliminary Analyses – Parental Gender Differences (Aim 2)

Prior to conducting the primary analyses regarding parental gender differences, a series of correlations were conducted between key demographic variables (i.e., child age and gender, family SES) and all outcome variables (parenting and acculturation) to determine if any covariates needed to be included in the primary analyses. Several significant correlations emerged between demographic variables and maternal outcome variables. Specifically, family SES was negatively correlated with maternal ratings of Latino orientation, ($r = -0.35$, $p = .02$) and positively correlated with maternal ratings of

Anglo orientation, ($r = 0.48, p = .001$). No significant relationships emerged for child age or gender. See Table 4.

Table 4.

Correlations of Demographic Variables with Maternal Parenting and Acculturation Variables

	PSI	PSOC	CHAOS	LOS	AOS	LV	MV
Child age (r)	-.08	.15	-.12	-.11	.06	.06	.05
Child gender (ρ)	-.23	.04	.03	-.06	.11	-.20	.17
Family SES (r)	-.08	.16	.21	-.35*	.48**	-.15	-.21

Note. $n = 46$.

PSI = Parenting Stress Index-4 Short Form (PSI-4-SF) sum; PSOC = Parenting Sense of Competence Scale (PSOC) mean; Confusion, Hubbub, and Order Scale (CHAOS) = CHAOS sum; LOS = Latino Orientation Scale sum (ARSMA); AOS = Anglo Orientation Scale sum (ARSMA); LOS = Latino Orientation Scale sum (ARSMA); LV = Latino Values sum (MACVS); MV = Mainstream Values sum (MACVS).

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

A significant relationship emerged between demographic variables and paternal outcome variables; specifically, family SES was positively correlated with paternal ratings of parental efficacy, ($r = 0.30, p = .04$). No significant relationships emerged for child age or gender. See Table 5.

Table 5.

Correlations of Demographic Variables with Paternal Parenting and Acculturation Variables

	PSI	PSOC	CHAOS	LOS	AOS	LV	MV
Child age (r)	.16	-.11	.03	-.20	.05	.23	.19
Child gender (ρ)	-.14	.01	-.19	-.02	-.12	-.05	.03
Family SES (r)	-.27	.30*	-.23	.08	.20	.07	.01

Note. $n = 46$.

PSI = Parenting Stress Index-4 Short Form (PSI-4-SF) sum; PSOC = Parenting Sense of Competence Scale (PSOC) mean; Confusion, Hubbub, and Order Scale (CHAOS) = CHAOS sum; LOS = Latino Orientation Scale sum (ARSMA); AOS = Anglo Orientation Scale sum (ARSMA); LOS = Latino Orientation Scale sum (ARSMA); LV = Latino Values sum (MACVS); MV = Mainstream Values sum (MACVS).

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

Primary Analyses – Parental Gender Differences (Aim 2)

Hypothesis 1.

A series of paired-samples t-tests were conducted in order to examine the first hypothesis regarding differences in ratings of parenting stress and parental efficacy according to parental gender. A significant difference was found between maternal ($M = 87.11$, $SD = 18.12$) and paternal ($M = 80.02$, $SD = 20.26$) ratings of parenting stress, $t(45) = 3.15$, $p = .003$. In accordance with guidelines set by Cohen (1998), the effect size of this difference was medium. No significant parental gender differences emerged in ratings of parental efficacy, $t(45) = -1.51$, $p = .14$. This pattern of findings remained the same after controlling for family SES as a potential covariate. A paired-samples t-test also was conducted to examine the exploratory question regarding the relationship between parental gender and ratings of home chaos, which was not found to be significant, $t(45) = .38$, $p = .70$. See Table 6.

Table 6.
Paired-Samples T-Tests for Maternal and Paternal Parenting Variables

	Maternal		Paternal		t	95% CI for Mean Difference		d
	M	SD	M	SD		LL	UL	
Parenting Stress	87.11	18.12	80.02	20.26	3.15**	2.56	11.61	0.37
Parental Efficacy	4.12	0.79	4.31	0.78	-1.51	-0.45	0.06	0.24
Home Chaos	42.48	10.37	41.91	11.41	0.38	-2.41	3.54	0.05

Note. $n = 46$.

* $p \leq 0.05$. ** $p \leq 0.01$.

Exploratory Question 1.

A series of paired-samples t-tests were conducted in order to examine the exploratory question regarding differences in ratings of acculturation based on parental

gender. A moderate-sized significant difference was found between maternal ($M = 4.38$, $SD = 0.52$) and paternal ($M = 4.16$, $SD = 0.55$) ratings of Latino orientation, $t(45) = 2.82$, $p = .007$. There were no significant parental gender differences in ratings of Anglo orientation, $t(45) = -1.05$, $p = .30$. This pattern of findings remained the same after controlling for family SES as a potential covariate. Finally, significant differences emerged between maternal ($M = 3.93$, $SD = 0.40$; $M = 2.85$, $SD = 0.50$) and paternal ($M = 4.05$, $SD = 0.44$; $M = 3.15$, $SD = 0.74$) ratings of Latino and mainstream U.S. values ($t(45) = -2.03$, $p = .05$; $t(45) = -2.56$, $p = .01$), with medium and large effect sizes, respectively. See Table 7.

Table 7.
Paired-Samples T-Tests for Maternal and Paternal Acculturation Variables

	Maternal		Paternal		t	95% CI for Mean Difference		d
	M	SD	M	SD		LL	UL	
Latino Orientation	4.38	0.52	4.16	0.55	2.82**	0.06	0.39	0.42
Anglo Orientation	2.45	0.85	2.61	0.83	-1.05	-0.44	0.14	0.19
Latino Values	3.93	0.40	4.05	0.44	-2.03*	-0.26	-0.00	0.31
Mainstream U.S. Values	2.85	0.50	3.15	0.74	-2.56*	-0.54	-0.06	0.47

Note. $n = 46$.

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

Primary Analyses – Relationship between Parental Acculturation and Parenting Variables (Aim 3)

In order to examine the final exploratory question regarding the relationship between parental acculturation and parenting variables, a series of correlational analyses were conducted. Several significant correlations emerged; specifically, maternal ratings of Latino values were significantly correlated with paternal ratings of home chaos ($r =$

0.36, $p = .01$). Additionally, paternal ratings of Latino orientation, Latino values, and mainstream U.S. values were significantly correlated with maternal ratings of home chaos ($r = 0.37, p = .01$; $r = 0.38, p = .008$; $r = 0.34, p = .02$, respectively). See Table 8.

Table 8.

Correlations of Parental Acculturation with Parenting Variables

	Maternal Parenting Stress	Maternal Parental Efficacy	Maternal Home Chaos	Paternal Parenting Stress	Paternal Parental Efficacy	Paternal Home Chaos
Maternal						
Latino Orientation	-.03	-.10	.00	-.07	-.06	.02
Anglo Orientation	-.04	.01	.17	.00	.01	-.11
Latino Values	.06	.13	.18	.21	-.27	.36*
Mainstream U.S. Values	.02	-.02	.14	-.04	-.14	.14
Paternal						
Latino Orientation	.11	-.19	.37**	-.07	-.05	.08
Anglo Orientation	-.02	.15	-.26	-.06	.27	-.15
Latino Values	.20	.05	.38**	.17	.02	.16
Mainstream U.S. Values	.17	.14	.34*	.20	.15	.20

Note. $n = 46$.

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

Based on these significant correlations, a multiple linear regression analysis was conducted to predict maternal chaos ratings based the aforementioned significant paternal acculturation variables. The overall regression was significant, $F(3,42 = 4.27, p = 0.01)$, $R^2 = .234$. To assess the contributions of individual predictors, the t-statistics for the partial regression slopes were examined. The proportions of variance uniquely explained by each of these predictors were as follows: $sr^2 = .26$ for paternal Latino orientation, $sr^2 =$

.16 for paternal Latino values, and $sr^2 = .11$ for paternal mainstream U.S. values. None of the predictors were significantly predictive of maternal ratings of home chaos; however, paternal Latino orientation was found to be approaching significance, $t(45) = 1.96$, $p = .06$. See Table 9.

Table 9.
Summary of Multiple Linear Regression Analysis Predicting Maternal Chaos

Source	B	SE (B)	β	t	p	sr^2
Paternal Latino Orientation	5.20	2.66	.28	1.96 [†]	.06	.26
Paternal Latino Values	4.93	4.16	.21	1.19	.24	.16
Paternal Mainstream U.S. Values	2.01	2.45	.14	0.82	.42	.11

Note. $n = 46$.

[†] $p \leq .10$.

Discussion

The goals of the current study were to explore cultural and contextual factors (i.e., gender and acculturation) that may affect family functioning among Latino parents of children diagnosed with ADHD. With regard to parenting variables, parents generally reported moderate parenting stress, feeling efficacious as parents, and mild home chaos. Descriptive statistics of the current sample indicated that the majority of participating families were from low-SES backgrounds, primarily of Mexican descent, and more acculturated to traditional Latino culture than mainstream U.S. culture. Although significant gender differences emerged for ratings of parenting stress, there were no significant differences between maternal and paternal ratings of parental efficacy or chaos in the home. Fathers in the current sample indicated significantly different levels of

acculturation than mothers. Several significant correlations emerged between acculturation and parenting variables. Taken together, these findings highlight some of the unique experiences of Latino families of children with ADHD that may affect experiences in mental health treatment and strategies for future interventions.

Descriptive Information for Parenting and Acculturation Variables Among Latino Parents of Children with ADHD (Aim 1)

Descriptive analyses revealed that Latino parents (mothers and fathers) in the current study reported moderate parenting stress, feeling efficacious as parents, and mild levels of home chaos. These results are significant in that they extend what is known about Latino families of children with ADHD, as the extant research in this area has primarily examined European American families. It appears that Latino parents in the current study endorsed experiencing parenting stress at rates that were lower or similar to those of European American parents of children with ADHD (Theule et al., 2013). This is interesting given that most parents in the current sample were from low-SES backgrounds, and past research has suggested that parents of children with ADHD from low-SES backgrounds are more likely to endorse experiencing greater parenting stress than those from families from middle or high-SES backgrounds (Baldwin et al., 1995).

Past research examining European American parents of children with ADHD has demonstrated that these parents tend to feel frustrated, worn out, and helpless as the result of their children's ADHD symptoms (Primack et al., 2012). Notably, as a group, the Latino parents in the current study actually endorsed feeling efficacious in their role as parents. This is consistent with Weinberger et al.'s (2015) study that found that mothers of ethnic minority children with ADHD reported greater parental efficacy than mothers of European American children with ADHD. Lastly, as evidenced by the correlation

between paternal reports of parental efficacy and family SES, there are likely additional contextual factors that played a role in the current sample of Latino parents' ratings of parental efficacy, especially among fathers. Indeed, Jones and Prinz (2005) theorized that among lower-SES families, a parent's sense of efficacy may trigger those who feel more efficacious in their role as parents to act in more proactive ways to decrease potential negative effects of environmental risk on their children's development and well-being (e.g., seeking out mental health care services, community resources). Recent research has indicated that cultural values, such as familism and machismo remain important for Latino fathers, because they are linked to behaviors that encourage the fulfillment of family roles (Cabrera & Bradley, 2012). Thus, it is plausible that among Latino fathers, being gainfully employed and able to provide for their families would lead to a sense of satisfaction in fulfilling a culturally sanctioned gender role (i.e., *machismo*, *familismo*), which in turn may lead to greater parental efficacy.

Finally, Latino parents in the current sample endorsed experiencing mild levels of chaos in the home, which is partially supported by past research. While past research has demonstrated that parents of children with ADHD tend to endorse experiencing higher levels of chaos in the home (Wirth et al., 2017), it is important to note that much of this research has focused on European American and other non-Latino families. In fact, the only study to date that aimed to explore home chaos among "ethnically diverse" parents of children with ADHD utilized a sample that was comprised of fewer than 5% Latino families (Deater-Deckard, 2012). This is important to note as existing literature has suggested there may be differing pathways to the development of home chaos for Latino families than families of other ethnic minority groups (Haack et al., 2011). It also is

critical to reiterate that the negative impact and perceived influence of chaos in the home may not hold true for Latino families, given the Eurocentric criteria that has been utilized to measure chaos in the home (Weisner, 2010). Therefore, the fact that Latino parents in the current study merely endorsed experiencing mild levels of home chaos largely fits with previous theory in this area. Nonetheless, the applicability and measurement of chaos in the home among culturally diverse individuals is an area of the literature that merits future explanation.

Descriptive data also demonstrated that Latino parents in the current sample reported being more acculturated to Latino culture than mainstream U.S. culture. More specifically, both mothers and fathers in the current sample reported greater traditional Latino cultural orientation and greater identification with Latino values relative to Anglo orientation and mainstream U.S. values on measures of behavioral and cognitive acculturation, respectively. These findings are interesting given results from a recent study which found that Latino parents' heritage retention paired with low mainstream U.S. acculturation was predictive of the occurrence of child psychopathology (Haack, Kapke, & Gerdes, 2016). Therefore, the current study is an important extension of past findings, because it demonstrates the applicability of these findings specifically to Latino parents of children with ADHD.

Parental Gender Differences in Parenting and Acculturation Variables (Aim 2)

The primary hypothesis that Latina mothers would report significantly higher levels of parenting stress relative to Latino fathers was supported. This is an important extension of findings from the meta-analysis by Theule et al. (2013), which concluded that mothers and fathers of children with ADHD report similar levels of total parenting

stress; however, in comparison to fathers, mothers of children with ADHD tend to endorse experiencing greater life stress in addition to more stress related to parenting a difficult child. In the current sample, Latina mothers reported greater levels of parenting stress when collapsed across domains (i.e., parental distress, parent-child dysfunction, difficult child) in comparison to Latino fathers. This suggests that there may be differing pathways to the experience of parenting stress for Latina mothers, especially for those who have limited financial and psychological resources to meet the needs of their child (Nomaguchi & House, 2013).

Furthermore, in light of traditional Latino cultural values that place a greater burden on Latina mothers' caregiving responsibilities (Barker, Cook & Borrego, 2010), it is unsurprising that Latina mothers of children with ADHD would be more likely to report higher levels of parenting stress relative to Latino fathers. Despite these important findings, many questions remain unanswered regarding the contextual underpinnings of parenting stress for Latino parents of children with ADHD. Future research should not only continue to explore these relationships, but also should examine ways to mitigate the negative impacts of parenting stress for Latino parents, particularly mothers, in a culturally-sensitive manner within a clinical context.

Surprisingly, the primary hypothesis that Latina mothers would report significantly lower levels of parental efficacy than Latino fathers was unsupported. This prediction was made based on a review by Jones and Prinz (2005), which presented findings suggesting gender differences on ratings of parental efficacy among ethnic minority parents. There are several possible explanations for this non-significant finding. For instance, past research has argued that ethnic minority parents' sense of efficacy may

be influenced by additional variables, such as parental involvement (Jones & Prinz, 2005) and perceived marital support (Cohen et al., 2015). This is important to note given that the current sample was comprised of Latino mothers and fathers who were jointly involved in their child's mental health treatment; therefore, it is logical that these parents would feel equally efficacious in their parenting roles and supported by one another. Additionally, it is important to note that no research to date has explored the potential influences of traditional cultural values (i.e., *machismo* and *marianismo*) on parental efficacy among Latino parents, which also could have influenced the results of the current study (i.e., fathers who endorse high *machismo* may be more likely to endorse high parental efficacy); this is a relationship that merits future exploration.

Examination of parental gender differences in ratings of home chaos was exploratory given a lack of previous research in this area. No significant parental gender differences emerged in ratings of home chaos. This is significant given the lack of past research on parental gender differences in ratings of home chaos, and indicates that, at least in the current study, Latino mothers and fathers are generally equally attuned to levels of chaos in the home setting. While this finding is inherently significant, future research should continue to explore the role of home chaos among Latino families of children with ADHD. Furthermore, future investigators should consider evaluating the cultural relevance of measuring chaos in the home for Latino families, ideally with a larger sample size than the present study.

Finally, given the lack of consistent research findings pertaining to gender differences in Latino adults' acculturation, no specific predictions were made regarding parental gender differences in acculturation; however, several significant findings

emerged. With regard to parental gender differences pertaining to cognitive acculturation, Latina mothers reported higher orientation to Latino culture relative to Latino fathers. Interestingly, on a measure of cultural value orientation, Latino fathers reported higher levels of Latino and mainstream U.S. values than Latina mothers, implying a greater degree of biculturalism. It is essential to note that these findings should not be interpreted as contradictory of one another. Rather, they highlight the inherent complexities of acculturation processes.

These findings are interesting in light of an absence of research that consistently describes gender differences in acculturation. Much of the extant acculturation research has utilized time in the receiving culture as a proxy measure for determining an individual's level of acculturation, whereby individuals who have lived in the U.S. longer would theoretically be more acculturated to mainstream U.S. culture (Gonzales, Fabrett, & Knight, 2009). In accordance with this theoretical framework, it is logical that Latino fathers in the current sample would demonstrate greater biculturalism, given that, as a group, they reported residing in the contiguous U.S. for a longer period of time than Latina mothers on a demographic form. Further, a majority of Latino fathers in the current sample were employed outside of the home, which may have led to greater exposure to mainstream U.S. culture, thus explaining the greater degree of biculturalism relative to Latina mothers in the current sample. Taken together with past research findings (Gerdes et al., 2014; Haack et al., 2016; Lawton & Gerdes, 2014; Schmidt & Velez, 2003), it is evident that parental acculturation is an important variable to be studied and should be included in future research with Latino families. Moreover, these findings indicate a need for more research in this area, with a specific emphasis on the

influence of parental acculturation, and possibly acculturative stress on Latino children's mental health treatment and outcomes.

Relationships Between Parenting and Acculturation Variables (Aim 3)

A few significant correlations emerged between acculturation and parenting variables. Specifically, paternal ratings of Latino orientation, Latino values, and mainstream U.S. values were significantly positively correlated with maternal ratings of home chaos, suggesting that as fathers demonstrated greater biculturalism, mothers reported more chaos in the home. It is possible that the relationship between Latino fathers' acculturation levels and Latina mothers' ratings of chaos in the home could potentially be accounted for by considering the factors of paternal employment outside of the home, maternal childcare responsibilities, and the availability of additional family member caregiving support. As previously mentioned, the majority of Latino fathers in the current sample were employed outside of the home, while significantly fewer Latina mothers were employed outside of the home. When considering the influence of employment on Latina mothers' parenting and acculturation, it is important to recognize that many of the Latina mothers in the current sample may or may not have had additional caregiving support from other family members. Past research suggests that the number of individuals who are available to assist with childcare in the home influences perceived home chaos, a finding that is maintained cross-culturally (Wachs & Çorapçi, 2003). Additionally, Haack et al., (2011) posited that greater U.S. acculturation is related to higher home chaos in Latino families, likely resulting from higher levels of other stressors in the home setting, such as acculturative stress. Thus, it is possible that greater levels of paternal biculturalism in the current sample is indirectly related to greater levels

of maternal perceived chaos in the home via higher levels of acculturative stress. In sum, this is a relationship that remains somewhat unclear, and it is evident that more research is needed in this area.

Limitations

Several limitations of the current study should be noted. As illustrated in Table 1, the current study was comprised of a relatively homogenous sample of Latino families from a mid-sized Midwestern city. The homogeneity of the current sample may in turn limit the generalizability of the findings to Latino parents from other geographic areas, of differing SES backgrounds, and/or differing levels of acculturation. Therefore, future studies should aim to recruit samples that are more representative of the composition of the U.S. Latino population overall. Another limitation of the current study relates to children's demographic characteristics; the low number of girls with ADHD who participated in the study limited the ability to analyze the role of child gender as a predictor of family functioning outcomes. Given the limited information on the effects of child gender on parental efficacy or home chaos, this is an area that merits further exploration in future research, especially as past research indicates child gender is a significant moderator of parenting stress and help-seeking behaviors among parents of children with ADHD (Eiraldi et al., 2006; Theule et al., 2010).

An additional limitation of the present study was that it exclusively utilized self-report measures of family functioning and acculturation. This may be problematic for certain constructs that are socially stigmatized (e.g., low parental efficacy, high home chaos). Therefore, future studies should consider incorporating multimodal forms of assessing family functioning to determine if the current pattern of findings remains

consistent. Future investigators could consider implementing cross-sectional reports of family functioning within each dyad of Latino parents of children with ADHD.

Alternatively, future studies could utilize direct clinical observations of parenting behaviors and parent/child interactions to obtain more objective measures of family functioning.

A final factor that should be noted is the present study's utilization of a sample of Latino parents who actively pursued mental health treatment for their child's ADHD, which can simultaneously be understood as a strength and limitation. As previously noted, the present study is the first of its kind to examine family functioning and acculturation variables in a treatment-seeking sample of Latino parents, which is of utmost importance given past findings that contextual factors can moderate the success of behavioral interventions for ADHD (Deault, 2010). However, many unknowns remain regarding Latino parents of children with ADHD who do not actively seek out mental health treatment for their child.

It is plausible that family functioning and acculturation may differ among these families who are not self-referred, given the degree of self-efficacy and understanding of formal mental health systems that is necessary to pursue and participate in parent training interventions for ADHD. This is important in light of past findings that Latino parents are typically motivated to seek help for their child's ADHD, but few possess adequate knowledge about effective treatments for the disorder and its etiology (Gerdes et al., 2014). Thus, more research is needed on Latino parents who engage in mental health interventions based on different referral sources (i.e., self-referred, school-referred, court-mandated) to determine potential differences in acculturation and family functioning (see

Cauce et al., 2002; Yeh et al., 2002). From a mental health disparity framework, a nuanced understanding of these relationships will likely improve recruitment strategies and treatment retention rates for Latino families of children with ADHD; in turn, this will help mitigate existing cultural and contextual barriers that limit many Latino families' ability to access and engage in treatment interventions.

Clinical Implications and Future Directions

Despite these limitations, the current study has several important implications for future research and clinical practice. The current study is the first of its kind to provide descriptive statistics for parenting and acculturation variables among a treatment-seeking sample of Latino parents of children with ADHD; this serves as an important extension of Eiraldi and colleagues' (2006) model of help-seeking behaviors for ethnic minority families of children with ADHD. Additionally, the relatively large sample of Latino fathers is an important strength of the current study, given that Latino fathers are often underrepresented in mental health research (Cabrera & Bradley, 2012; Cabrera & Garcia Coll, 2004) and that fathers of children with ADHD are less likely than mothers to participate in behavioral parent training interventions (Fabiano, 2007).

In light of the present study's findings, there are several ways that clinicians may consider adapting their treatment strategies to best meet the mental health care needs of Latino families. For instance, Barker and colleagues (2010) recommend for clinicians who work with Latino families in parent training programs to be mindful of the various added stressors that many Latino parents may experience related to their cultural experiences with raising their child in the United States, and to address these stressors throughout the course of treatment. More specifically, the current study's findings

suggest that clinicians should consider addressing factors, such as Latina mothers' elevated parenting stress, the potential discrepancies in acculturation between mothers and fathers, the relationship between economic stress, cultural values, and paternal parental efficacy, among others (i.e., immigration status, language barriers, gender norms) (Barker et al., 2010). It is also recommended that clinicians utilize culturally adapted treatments whenever possible, such as a culturally adapted treatment for Latino families of children with ADHD (see Gerdes et al., 2015).

Finally, the current study poses significant clinical implications for reducing Latino mental health disparities. It is evident from years of research findings that the success of parent training interventions for ADHD is often highly dependent upon a variety of familial, cultural, and contextual factors. Indeed, an improved conceptualization of family functioning among Latino families of children with ADHD will likely lend itself to clinicians who have a more holistic understanding of families' treatment needs and specific barriers to care. With a greater understanding of these family functioning variables, it is likely that researchers and clinicians will be more able to adapt existing interventions to better meet Latino families' mental health needs.

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