

Examination of the Parent-Child Acculturation Gap and Child Psychopathology in a
Mexican American Population

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Mexican American children and adolescents represent the largest and fastest growing segments of the population and, as such, represent an important population for the examination of culture and clinical phenomena (U.S. Census Bureau, 2007b). Evidence indicates that Mexican American children and adolescents present with higher rates of psychopathology than children and adolescents from other cultures (Minsky, Vega, Miskimen, Gara, & Escobar, 2003; Varela, Vernberg, Sanchez-Sosa, Riveros, Mitchell, & Mashunkashey, 2004; & Vazsonyi & Flannery, 1997); however, the positive or negative role that cultural factors (e.g., interactions due to exposure between Western culture and Mexican American culture) play in the maintenance or alleviation of psychopathology rates has not been adequately examined due to the fact that contextual factors are routinely overlooked (Bernal & Scharron-del-Rio, 2001; Fouad & Arredondo, 2007). Using the Behavior Assessment System for Children, 2nd edition (BASC-2) and the Acculturation Rating Scale for Mexican Americans, 2nd edition (ARSMA-2), the current study examined the relation between maladaptive behavior and cultural status in a sample of 76 Mexican American parent-child dyads. The present study examined how identification with a cultural group impacted how parents and children reported psychological symptoms. The results indicated that differences in parent and child acculturation levels were not predictive of differences in parent and child rated child psychopathology. Implications of the findings are discussed.

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Examination of the Parent-Child Acculturation Gap and Child Psychopathology in a Mexican American Population

By 2050, Hispanics and Latinos will comprise almost a quarter of the United States (U.S.) population, with Mexican Americans accounting for two-thirds of the population of Hispanics (U.S. Census Bureau, 2007a). Also, by 2050, a third of the population of individuals under 19-years-old in the U.S. will be Hispanic, a majority of whom will be Mexican American (U.S. Census Bureau, 2007b). Given their growing prominence in American society, the problems that affect Mexican American children and adolescents are likely to be in the forefront of national attention and represent an important population for the examination of culture and clinical phenomena.

The field of clinical child psychology has a need, both ethical and practical, to understand how culture affects child behavioral and emotional outcomes. Whaley and Davis (2007) have argued that the lack of cultural competence has a detrimental effect on the practical effectiveness of services for culturally diverse populations. The field of clinical child psychology is still in its infancy with regard to its understanding of how culture may influence child outcomes. Research has provided a framework for the field by showing that the demonstration of psychological functioning is culturally dependent and that the perception of behavior lies in the culture of the viewer (Bernal & Scharron-del-Rio, 2001; Vera, Vila, & Alegria, 2003). The purpose of the present study is to examine how differences in acculturation between Mexican American parents and children affect differences in reporting of child behavioral and emotional outcomes.

Empirical literature demonstrates that Hispanics have important mental health concerns that differ from people from other cultures in terms of higher reported rates of

anxiety symptoms (Varela, Vernberg, Sanchez-Sosa, Riveros, Mitchell, & Mashunkashey, 2004), higher rates of depressive symptoms (Minsky, Vega, Miskimen, Gara, & Escobar, 2003), and higher rates of antisocial behaviors (Vazsonyi & Flannery, 1997). It is important to understand why these differences, if accurate, occur.

Several possibilities may explain why Hispanic Americans demonstrate higher rates of psychopathology when compared to people from other cultures. One possibility is the effect socioeconomic status (SES) has on psychopathology. Children living in lower SES environments are at greater risk for psychopathology than children in higher SES environments (Samaan, 2000). Furthermore, Hispanics are more likely to live in lower SES environments than Anglo Americans. While 13.2% of Anglo American children live in poverty, 39.9% of Hispanic children live in poverty (U.S. Census Bureau, 2007b). Poverty is associated with risk factors such as higher community violence, less access to mental health services, and higher parental stress (Luthar & Goldstein, 2004, Newacheck, Hung, Park, Brandis, & Irwin, 2003, Rutter, 2003) and exposure to the experience of poverty and its associated negative features may put Hispanic children at greater risk for nonnormative development.

A second possibility that might explain the higher rates of anxiety, major depressive symptoms, and antisocial behavior in Hispanic Americans is that Hispanic children may simply be more prone to mental illness than other ethnic groups. For example, biological research suggests that there is a clear genetic link for the development of depression (Thapar & McGuffin, 1994) and aggression (Vitaro & Brendgen, 2005). It may be that the higher prevalence rates of psychopathology in the Hispanic community are due to Hispanic Americans being more biologically predisposed

to mental illness compared to other ethnic groups. Researchers (Solberg, Valdez, & Villarreal, 1994; Suarez, Fowers, Garwood, & Szapocnik, 1997) have examined this diathesis stress model to determine if Hispanic individuals were more predisposed to mental illness. In contrast, some researchers provide a third possible explanation and suggest that it is the Hispanic culture itself (e.g., the lack of use of English) that makes Hispanics more prone to certain types of psychopathology (e.g., Westermeyer & Janca, 1997).

Although each of the above possibilities may have some merit, all of these notions fail to appreciate that Hispanic culture is represented by enormous within group differences such as immigration experiences (or lack thereof), use of language, and generational differences. Examining between-group differences without simultaneously taking into account within-group differences ignores crucial information that could result in errors in interpretation of data. For instance, if one were to accept SES as an explanation for the higher rates of psychopathology in Hispanic Americans, one would discover that levels of SES can vary according to environmental and social factors specific to one cultural group that are not applicable to another cultural group (McLeod & Nonnemaker, 2000). For example, factors such as undocumented citizenship that contribute to low SES in Mexican Americans may be completely absent or irrelevant as factors that contribute to low SES in another group of Hispanic Americans such as Puerto Ricans who are U.S. citizens. Furthermore, first wave Cuban Americans (native Cubans who came to the United States when Castro came to power) did not encounter similar difficulties related to low SES (as these individuals were skilled professionals such as medical doctors) yet still present with high rates of psychopathology (Strug & Lemaku,

2008). Failure to accurately understand these causes can limit psychologist's ability to intervene and remedy these problems. The explanatory power, therefore, of a single factor, such as SES, as an answer to the question of what is responsible for higher rates of psychopathology in Hispanics is limited and this limitation is a direct result of failing to appreciate within group differences in Hispanics.

If one were to accept the second explanation, that Hispanics are more prone to mental illness, one would fail to take into account the differences in the experience of being Hispanic. In fact, when Solberg, Valdez, and Villarreal (1994) and Suarez et al. (1997) examined the diathesis stress model for Hispanics, they found no support for that model in Hispanic populations. Specifically, when these researchers examined rates of psychopathology in Hispanic and Anglo American college students they expected to find that equivalent levels of self-reported stress would result in higher levels of self-reported psychopathology for Hispanics. What they found was that equivalent levels of self-reported stress resulted in no significant differences in self-reported psychopathology.

It appears that neither of these explanations (poverty or genetic predisposition) are sufficient to explain the higher rates of psychopathology reported for Hispanics. The last possibility that Hispanic culture is somehow teratogenic is also insufficient. This is because Hispanic culture is not monolithic. People who are Hispanic represent a multitude of countries and experiences and are not a discrete or easily defined object and therefore, one cannot say that being Hispanic is a single, monolithic variable that puts one at risk for psychopathology.

One other possible explanation for psychopathology among Mexican Americans bears consideration. No matter where an individual might be within the range of the

moniker of “Hispanic” another problem Hispanic people face is adjustment to cultural differences with other groups. It may not be possession of Hispanic cultural norms that is responsible for higher rates of psychopathology, but managing the experience of being in the minority and surrounded by another culture with different cultural norms.

For example, when Miranda and Umhoefer (1998) examined culture and ethnicity they found that rates of depression were related not to ethnicity, but to acculturative status. That is, biculturalized Mexican Americans (i.e., individuals who accept *both* Anglo American and Mexican American cultural norms) had lower rates of depression than high acculturated (i.e., individuals who accept only Anglo American cultural norms) or low acculturated (i.e., individuals who do not accept Anglo American cultural norms) Mexican Americans. Had Miranda and Umhoefer looked only at between-group differences (Anglo American and Mexican American) they would have not been able to detect these important and clinically significant differences. It was only when within group differences were examined did these differences emerge. This points to the importance of examining within group differences particularly as pertains to acculturation because to not examine these differences may result in erroneous interpretations of the data (e.g., poverty is the cause of psychopathology in Hispanic populations or being Hispanic is teratogenic).

Unfortunately, the historical trend of multicultural research has been to only examine between group differences (Sue, 2006). It is not clear why within group differences are rarely examined in relation to psychological functioning, however, two possibilities may explain this pattern: a) the tendency for research to treat culture as a nuisance variable and b) the manner in which culture is operationalized.

Culture as a nuisance variable

Researchers in multicultural psychology agree that culture is a highly contextual construct that cannot be simplified to a single variable (Berry, 2003; Sue & Sue, 2003) meaning that although the definition of culture is consistent (i.e., pattern of beliefs, values and practices), the manner in which those values and beliefs that make up one's culture can be manifested occurs in a variety of ways. The context under which someone values family (e.g., at a birthday party or at work) or shows affection (e.g., alone or in the workplace) may greatly change how a person shows their cultural values. Researchers, however, often treat culture as a variable that must be "controlled," a type of confounding phenomenon that leads to unwanted variance and needs to be explained away instead of explored for its rich contextual features (Vargas, 2007). This attitude of controlling for culture is best exemplified in Huey and Polo's (2008) meta-analysis of evidence-based treatments for ethnic minority youth. In their study, they defined the construct of culture as a single variable composed only of one's ethnic group (African American, Latino, Asian American, or Caucasian). They showed that researchers addressed cultural factors in treatment studies with ethnic minorities by using one of three methods: a) including at least 75% of participants who were ethnic minorities, b) separate analyses of the ethnic minority population in the study demonstrating superiority over control condition, and c) analyses showing ethnicity did not statistically moderate treatment outcomes.

Although the research is promising, simple inclusion of an ethnic minority group in the analyses or controlling for ethnic group membership does not necessarily mean a treatment is culturally-adapted or sensitive to the needs of ethnic minority clients. Indeed, ethnicity is only one part of the larger construct of culture (Canino & Spurlock,

2000). Culture is defined as “the belief systems and value orientations that influence customs, norms, practices, and social institutions” (APA, 2003, p. 380), whereas ethnicity is “the acceptance of the group mores and practices of one’s culture of origin and the concomitant sense of belonging” (APA, 2003, p. 380). To simply include an ethnic minority group in a treatment group does not make that treatment culturally sensitive or the results applicable to members of ethnic groups because not every individual included is an identical representative of the belief systems and values from that group. Simple inclusion makes the error of assuming a culture is uniform and rather monolithic (i.e., the ways culture is demonstrated is the same for all members of the ethnic group and there are no significant within group differences in a particular culture that require examination).

More importantly, Huey and Polo’s (2008) methods for examining culturally diverse populations in treatment does not really test for the influence of culture. Out of 35 studies examined, over half relied on condition one (i.e., including at least 75% of participants who were ethnic minorities), which fails to account for the tremendous within-group differences in ethnic minority groups. Furthermore, those that relied on conditions two and three tell the clinician nothing about the contextual and ecological factors operating for a particular ethnic group (e.g., individuals relationships with members of their own ethnic group and other ethnic groups). To conceptualize a fluid and highly contextual construct (culture) as static and isolated (the single variable of ethnicity) is to lose enormous amounts of potentially critical information (Alegria, Takeuchi, Canino, Duan, Shrout, Meng, et al., 2004). Two individuals may be categorized as Hispanic, but could have been born in different countries, speak different

languages, parented in different ways, and socialized by different peer groups. Although these are all factors affecting clinical outcomes, both individuals would both be categorized as Hispanic and analyses would, in effect, treat them as the same person. To categorize such individuals under the same label sacrifices potentially crucial information (e.g., how a person's beliefs and values affect their behavior) at the expense of having an easily operationalized label. By going beyond such easily operationalized labels, clinicians could gain a deeper understanding of how specific aspects of culture relate to specific aspects of psychopathology.

Guarnaccia, Pincay, Alegria, Shrout, Lewis-Fernandez, and Canino (2007), citing data from the National Latino and Asian American Study, stated that important factors such as language usage, immigration experiences, and family experience (e.g., how parents and children interact) are ignored when one operationalizes Latinos into a single group and does not examine how these within group differences play a role in mental health needs. They stated that to ignore these within group differences can have negative outcomes such as failure to deliver appropriate mental health services and failure to measure appropriate mental health outcomes (Guarnaccia et al., 2007). The reasons researchers give for using such definitions, despite their shortcomings, is that to operationalize in this way is easier for field research and data analysis (Fouad & Arredondo, 2007).

To begin to address these shortcomings in the literature, research needs to be conducted that examine how specific within group differences affect child outcomes rather than how between group categorizations affect outcome. The crucial question of what are the active ingredients within a culture that contribute to child behavioral and

emotional outcomes remains. This is important because to have such knowledge would allow psychologists to legitimately say that treatment and assessment methods are culturally sensitive. As the field currently stands, this is not a claim psychologists can make. To make this claim, context needs to be examined, such as relational aspects between parents and children, one of the most important contexts in a child's lifespan.

Operationalizing culture and acculturation

A second reason that the field struggles to adequately incorporate cultural factors into research on clinical outcomes for children of color is the manner in which culture is operationalized. That is, much of the previous literature in multicultural psychology has examined culture divorced of context using single domain proxy variables such as language usage or self-identification of ethnicity (Dana, 1996, Trimble, 2003). Albeit a simple approach, it has the advantage of speed and reliability of reporting. That is, it does not take several dozen items on a scale or hours of coding and interviews to assess what language a person speaks or does not speak or what ethnicity they endorse on a checklist. The disadvantage, however, is that taking a highly contextual phenomenon out of the context reduces its meaning because it tries to isolate something that only has meaning within the context of a larger whole. It is similar to taking a single note out of a Mozart symphony and attempting to judge the entire piece based only on that single note.

It is not likely that it is the construct of culture in isolation that is important, but more specifically, the changes that occur as cultures interact. That is, acculturation, or the changes in values, behaviors, lifestyles, and beliefs that occur as individuals come into contact with another culture is what has meaning for understanding the relation between culture and clinical phenomena (Balls-Organista, Organista, & Kurasaki, 2003,

Gee, Ryan, Laflamme, & Holt, 2006). If one wishes to understand the relation between culture and any clinical construct in children and adolescents, one must incorporate acculturation. Several studies give support to the notion that, due to cultural differences, Hispanics are uniquely affected by the experience of living in the U.S. Santisteban and Mitrani (2003) stated that, “White American culture places a relatively higher value on individuality and independence, whereas Hispanic culture values collectivism and gives precedence to the needs of the family rather than to the needs of the individual” (p.132).

Santisteban and Mitrani and other researchers (e.g., Chun & Akutsu, 2003) suggest that the general trend, for both Hispanics who have immigrated to the U.S. and for U.S. born Hispanics, is to move from a collectivistic perspective to a more individualistic perspective. Empirical research has demonstrated that Hispanic individuals have measurable differences in their level of individualism and collectivism based on their contact with Anglo American culture. For example, Duarte, Bird, Shrout, Wu, Lewis-Fernandez, Shen, et al. (2008) examined 1,271 Puerto Rican youths and their parents across four years to assess psychiatric symptoms and culture. The results indicated significant generational differences in levels of acculturation between parents and children, as well as differences over time for individual levels of cultural stress. This research, while looking more closely at cultural phenomena (e.g., generational differences and collectivism vs. individualism), still fails to specifically examine relational components among children’s social context.

This research, however, gives an indication of where to begin to look when examining contextual aspects of culture, specifically the relational changes between parents and children that occur as a result of acculturation. Researchers state that a

change from collectivistic to individualistic requires an alteration of the culture of origin to fit in with a new culture and that this shift can cause distress or psychopathology (Chun & Akutsu, 2003; Santisteban & Mitrani 2003; Swanson et al., 1992). Applied to Hispanic youth, this argument suggests that it is not necessarily being Mexican American, for example, that produces a negative effect on mental health and an increase in the prevalence of behavioral and emotional problems, but rather one's experience of shifting from the values of one culture (i.e., Mexican) to another (i.e., Anglo American) that may produce psychopathology. This shifting of values is an experience that cannot be easily captured by placing an individual into a static category (such as ethnicity) where contextual factors are not taken into account (such as the relationships a person has with others). It would seem logical that exploration of this shifting of values over time (i.e., exploration of intergenerational shifts in values between parent and child) would also give insight into the nature of psychopathology in Hispanic Americans. Past research has pointed to the possibility that shifts in cultural attitudes between parents and children are important. What must be demonstrated now is how these shifts in values affect psychopathology.

For clinical child research, parent-child relationships are a particularly important context when trying to understand child psychopathology. Research shows evidence that the parent-child relationship plays an important role in the transmission of psychopathology. For example, Barmish and Kendall (2005) argued that parents play a direct part in exacerbation or alleviation of their children's anxiety symptoms in treatment of anxiety disorders, with many children's anxiety symptoms mirroring their parents own anxiety symptoms (e.g., parents symptoms heightened physiological arousal

may be similar to their children's presentation of physiological arousal). Even if symptoms are not directly mirrored by parents and children, parents may still play an active role in the transmission of psychopathology. For example, Eyberg, Nelson, and Boggs (2008) demonstrated that parenting deficits (such as inconsistent use of parental attention) could contribute to whether a child develops clinically significant disruptive behaviors. Eyberg et al. also emphasize that since parents can actively influence the development of psychopathology they can also influence the alleviation of clinically significant disruptive behaviors.

Research also shows that the parent-child relationship plays an important role in the transmission of culture. Esparza and Sanchez (2008) demonstrated how parental beliefs in their ethnic culture are transmitted to their children and influence the child's development of family norms and attitudes toward education. Santisteban and Mitrani (2003) demonstrated how parent-child conflict in Latino families is culturally based through acculturation differences (e.g., a parents traditional beliefs conflict with the child's Western beliefs) and how this conflict can result in acceptance or rejection of cultural norms (e.g., acceptance of an individualistic outlook over a collectivistic worldview).

Since previous studies have cited a link between being an ethnic minority and being at risk for psychopathology (e.g., Minsky, et al., 2003; Varela, et al., 2004; Vazsonyi & Flannery, 1997) it would seem logical to examine the role the parent child relationship has in this link as it appears to play a significant a role in both the transmission of culture and psychopathology. Therefore, a further question of interest would be to examine what role the culture of parents and children plays in how

psychopathology is perceived. That is, it is important to understand how acculturation differences between parents and children may contribute to how parents and children view mental health. Although members of the same family, parents and children do not always agree on what behaviors are cause for concern or which cultural values are important.

The acculturation gap

One of the most important components regarding acculturation and children is the existence of an acculturation gap between parents and children. There is evidence that an acculturation gap between parent and child (usually occurring when a parent has greater attachment to the culture of origin and the child to a different culture) can affect the behavioral and emotional functioning of both parent and child within the same culture (Canino & Spurlock, 2000). For example, Mexican culture dictates clearly defined gender roles for males and females. A Mexican American female teenager may engage in behavior that is seen as inappropriate in traditional Mexican culture, but not in mainstream Anglo American culture (e.g., spending time alone with close male friends).

Although experts cite this acculturation gap as important, empirical research is inconclusive. Some studies have demonstrated behavioral and emotional problems when parent and child have differing levels of acculturation such as when the parent identifies strongly with the culture of origin while the child identifies strongly with the new host culture (Romero & Roberts, 2003). For example, when a traditionally-oriented Mexican American parent has a highly acculturated son or daughter, the parent tends to report higher levels of rule-breaking behavior than when the child is more traditionally-oriented (Martinez, 2006). In addition, Schofield, Parke, Kim, and Coltrane (2008) examined 5th

and 7th grade Mexican American children and their parents and found a relationship between acculturation gaps and behavioral outcomes (internalizing and externalizing behaviors as measured by the Child Behavior Checklist) that was moderated by the relationship quality between the child and the father. Yet, other studies have stated that the relation is inconclusive and that other factors such as different communication styles (e.g., a parent with a passive communication style vs. an adolescent with a direct communication style) account for higher reporting of behavioral problems (Santisteban & Mitrani, 2003). Furthermore, Lau, McCabe, Yeh, Garland, Wood, and Hough (2005) found no evidence of a parent-child acculturation gap affecting behavioral report by parents. To begin to resolve these inconsistent results, psychologists need to better understand how culture relates to how individuals report child outcomes.

Previous studies (e.g., Lau et al., 2005; Schofield et al., 2008) give different and opposing explanations to explain their respective results, but failed to adequately address why these differences occur. For example, neither Schofield et al. (2008) nor Lau et al. (2005) examined what factors specifically within the acculturative process contributed to which specific types of psychopathology when parent-child differences in acculturative status were present. Furthermore, they did not address whether the differences in reports of psychopathology were due acculturation or to the naturally occurring differences in reporting that occur whenever a child and parent rate the same outcome. Andrew, Garrison, Jackson, Addy, and McKeown (1993) stated that there are expected differences in rates of reporting psychopathology that occur whenever a parent and child report on the same behavioral or emotional outcome (e.g., parents tend to report more externalizing

symptoms and children tend to report internalizing symptoms). These differences were unaddressed in the previous studies.

In addition, none of the previously mentioned studies that examined the acculturation gap obtained child self-reports of psychopathology. In fact, research that examines the acculturation gap with respect to psychopathology routinely uses only the parental perspective (i.e., parent ratings) when assessing psychopathology in children. Failures to address the issue of rater differences and to obtain both parent and child perspective are common in research that examines the acculturation gap with respect to behavioral and emotional outcomes and represent areas that need to be addressed in future research.

Limits of past research

Previous research appears to follow two patterns when examining culture and clinical outcomes. The first is to treat culture as a nuisance variable that must be controlled. Second is the tendency to operationalize culture in the simplest way possible, which results in loss of valuable information (such as within group differences and interactions between cultures). Because of these patterns, current research does not adequately address the effect an acculturation gap between a parent and child can have on reporting of behavioral and emotional problems.

Traditional methods of assessing culture (e.g., language spoken or self-identification of ethnicity) may not have allowed adequate exploration of the contextual factors related to the acculturation gap. One of the most important points for understanding child psychopathology is the parent-child relationship. This is also a critical point for understanding culture. It makes sense to examine the processes of

acculturation because parents and children often differ on levels of acculturation. This in turn can affect reporting of psychopathology. Although researchers have attempted to answer if acculturation affects the parent-child relationship, none have examined why this is so. To date, this discrepancy between parent and child has not been adequately explored with attention to differing perspectives between parent and child concerning both acculturation and psychopathology. In addition, previous studies have also failed to address how differences in raters affects behavioral outcomes (i.e., whether differences are due to acculturation or to naturally occurring error given multiple reporters). As the relation between the acculturation gap and psychopathology has been shown to be potentially important in the interpretation of behavioral and emotional phenomena, this study represents a logical point of departure to begin to correct the previously mentioned errors in the field of clinical child psychology.

Hypotheses

Given that acculturation differences between parents and children have not been adequately explored, the present study examined clinical constructs (scores on subscales of a measure of psychopathology) within the context of the parent-child dyad while taking into account the levels of acculturation in parents and children in a sample of Mexican American families. It was hypothesized that discrepancies (i.e., difference scores) between acculturation levels of parent and child would predict discrepancies (i.e., difference scores) between parent and child reports of behavioral and emotional problems.

Method

Participants

Sixty-three Mexican American parents ($M = 39.37$, $SD = 5.67$) and 76 children and adolescents, ages 12-18, ($M = 14.89$, $SD = 2.13$) were sampled from churches and community centers in the Midwest and Southwest U.S. Mexican American background was assessed via self-report. Approximately 60 families were solicited from the Midwest, while approximately 150 were solicited from the Southwest. Of those who participated, 21 children were from the Midwest (29%), while 52 were from the Southwest (71%). Children were excluded if their parents responded positively that his or her child had a developmental disability (e.g., a pervasive developmental disorder or mental retardation). Because the focus of the project was on adolescents, children under the age of 12 were also excluded.

Measures

Demographic measure

As an indicator of socioeconomic status (SES), parents were asked to indicate their overall family income and years of education. Information on SES was gathered through the Duncan Socioeconomic Index (Duncan, 1961) while other general demographic information was collected from the ARSMA-II (Cuellar, Arnold, & Maldonado, 1995) demographic section. Average income for the families was \$42,108 ($SD = 30,058$), with a range from \$7,200 to \$198,000. The majority (63.5%) of parents reported that they had at least a high school education or 1-2 years of college. According to Duncan (1961), and adjusting for 2010 census data, this average income and education level places the majority of the families (63.5%) in the “average” (i.e., middle class) level of SES. This SES level, however, must be interpreted with caution given the standard deviation and range of incomes, which, together with educational level, would place the

current sample within the “somewhat below average” range (i.e., lower middle class) to the “good” range (i.e., upper middle class) of SES.

Acculturation measure (self report)

The culture specific measure of acculturation, the Acculturation Rating Scale for Mexican Americans, Second Edition (ARSMA-II, Cuellars, Arnold, & Maldonado, 1995), was administered to parents and children. The ARSMA-II consists of 48 questions and is designed to be administered in either English or Spanish. Each response is measured on a five-point Likert scale. The ARSMA-II is composed of two subscales: the Mexican Orientation Scale (MOS) consisting of 13 questions and the Anglo Orientation Scale (AOS), consisting of 17 questions. The MOS is designed to be an indicator of how close an individual feels to the Mexican culture (i.e., enculturation) while the AOS is designed to be an indicator of how close an individual feels to the Anglo-American culture (i.e., acculturation). An example of an AOS question is “I speak English” or “My friends, while I was growing up, were of Anglo origin.” An example of an MOS question is “I write in Spanish,” or “I like to identify myself as a Mexican American.” For purposes of this study, a Spanish translation was obtained, and question 24 (“I speak my native language with my spouse or partner”) and question 31 (“I speak English with my spouse or partner”) were changed to “I speak my native language with my boyfriend/girlfriend” and “I speak English with my boyfriend/girlfriend” for use with an adolescent population.

The AOS and MOS showed good internal reliability in the Cuellar et al. (1995) study, with an alpha coefficient of .86 and .88 respectively. Furthermore, the AOS and MOS demonstrated good test-retest reliability (time = 1 week) with $r = .94$ and $r = .96$,

respectively. In the current sample, the alpha coefficients for the parent report AOS and MOS were .91 and .89, respectively, while the alpha coefficients for the child report AOS and MOS were .85 and .87, respectively. The ARSMA-II showed a significant correlation between acculturation and generational status ($r = .61, p < .001$), indicating good concurrent validity in measuring the overall construct of acculturation. In addition, the ARSMA-II showed significant mean differences between generations in the direction hypothesized by the literature (i.e., later generations were more acculturated and earlier generations were less acculturated) with $F(4,346) = 54.195, p < .001$.

Psychopathology and adaptive measure (parent report)

Levels of child psychopathology and adaptive behavior were assessed by parent and self-report on the Behavior Assessment System for Children, Second Edition (BASC-2, Reynolds & Kamphaus, 2004). The parent report BASC-2 for adolescents (BASC-2 PRS-A) is a 150 item, Likert scale measure used to assess three domains: externalizing, internalizing, and adaptive behavior for youths 12 to 21 years old. The externalizing domain consists of three scales: hyperactivity, aggression, and conduct problems. The internalizing domain consists of three scales: anxiety, depression, and somatization. The adaptive domain consists of five subscales: adaptability, social skills, leadership, activities of daily living, and functional communication. According to the manual (Reynolds & Kamphaus, 2004), the BASC-2 PRS has good content validity, yielding high internal consistency ($\alpha = .90$ to $.94$) and test-retest reliability ($r = .78$ to $.92$). The Spanish version, BASC-2 PRS, demonstrates moderate to high internal consistency with alpha coefficients ranging from $.78$ to $.93$.

Psychopathology and adaptive measure (adolescent self report)

The self report BASC-2 for adolescents (BASC-2 SRP-A) is a 176 item, Likert scale measure used to assess four domains: school problems, internalizing problems, inattention/hyperactivity, and personal adjustment for youths 12 to 21 years old. The school problems domain consists of three subscales: attitude to school, attitude to teachers, and sensation seeking. The internalizing domain consists of seven subscales: atypicality, locus of control, social stress, anxiety, depression, sense of inadequacy, and somatization. The inattention/hyperactivity domain consists of two subscales: attention problems and hyperactivity. The personal adjustment domain (a measure of adaptive behavior) consists of four scales: relations with parents, interpersonal relations, self-esteem, and self-reliance. According to the manual (Reynolds & Kamphaus, 2004), the BASC-2 SRP has good content validity, yielding good internal consistency ($\alpha = .79$ to $.82$) and test-retest reliability ($r = .73$ to $.75$). For the Spanish version, BASC-2 SRP, reliability is moderate to high with alpha coefficients ranging from $.77$ to $.95$. Because this study assessed psychopathology across informants, only scores that are present in both parent and child report were used. Specifically the following subscales from both parent and self report were used to measure psychopathology: anxiety, depression, hyperactivity, and attention problems.

Procedure

Recruitment for the study took place in several phases. First, several locations in the Midwest and Southwest with a majority Mexican American population (i.e., more than 50% of the population) were selected as target study sites. Of these locations, two agencies agreed to allow the research team to recruit participants and conduct data collection from members of their organization: the Catholic Church Diocese and a

community mental health and outreach center that serves the Kansas City area. Second, times for data collection were arranged between the primary investigator and the program coordinators for the two organizations. Third, the program coordinator agreed to notify families about the study in the context of regularly scheduled agency events. The Catholic Church locations posted bulletins of the scheduled time and location in their newsletter and then over the span of eight months made an announcement at the end of church Mass as to the time and location of the research study. The community center would announce the time and location of the research study in the context of parent education classes. All participation was voluntary, with participating agencies offering no incentives for participation. Based on program director reports, of the total number recruited from the sites (60 families from the Midwest and 150 from the Southwest), approximately one-third (21 from Midwest and 52 from Southwest) indicated interest and completed the study measures.

Once participants arrived at the designated location and time, consent forms were given before surveys were administered, with a Spanish translator present. Prior to data collection, all interested parents were asked if their child had a developmental disability. Approximately six parents responded positively. These parents were thanked for their time and did not complete the study measures.

All forms were available in Spanish and English versions. Forms that did not already have a pre-existing Spanish translation were translated by native Spanish speakers and were back translated by different native Spanish speaking research assistants (one in Kansas and one in Texas) with any inconsistencies resolved after back translation. The consent form was translated by a native Spanish speaking clinical child

psychologist and was back-translated by a native Spanish-speaking counselor at a Midwest community mental health center, as well as by four other native Spanish-speaking professionals who routinely perform translations (written and oral) for an engineering firm.

Parents and children were given consent forms in both Spanish and English. Each consent form allowed parents to check a box if they preferred forms written in Spanish rather than in English. Based on this information, the parents and children were administered forms in their language of choice. Of the families surveyed, 47 parents (74.6%) filled out the forms in English, while 16 parents (25.4%) filled out the forms in Spanish. Of the children who participated, 69 (90.8%) filled out the forms in English, while 7 (9.2%) filled out the forms in Spanish. The parents were instructed, via the consent form, that the parent who spends the most time with the child should complete the demographic measures, ARSMA-II, and the BASC-2. Children were required to fill out the same forms. Data collection generally took 45 minutes to an hour for each parent and child. Parents and children were debriefed by both the principal investigator and Spanish speaking research assistant after the family finished the surveys, and contact information for the principal investigator was given to both the permission-granting agency and to the families in case the families should have any questions about the study at a later time. Finally, each parent received a \$5.00 gift card for each child they allowed to participate in the study. Furthermore, free lectures on child development and psychopathology were given by the principal investigator as an additional reward after the families completed participation.

Results

A power analysis was conducted using G-Power software to determine a sample size necessary for a moderate effect size. This power analysis indicated that for a t-test, at least 84 subjects (42 in each group) would be necessary while for a regression analysis with one predictor a total of 89 subjects would be needed. A preliminary analysis using an independent samples t-test was conducted to determine if there was a systematic difference in responses between those who completed the study forms in Spanish compared to those who completed the forms in English. Specifically, the t-test examined the parent-rated Externalizing Composite ($ns\ t(58) = -.867, p = .390$), the parent-rated Adaptive Composite ($ns\ t(59) = .680, p = .499$) and the child-rated Adaptive Composite ($ns\ t(73) = 1.696, p = .094$). The results indicate that language of choice likely did not significantly affect ratings.

In addition, preliminary analyses using an independent samples t-test were conducted to determine differences between parent and child ratings on the variables of interest, specifically the AOS and BASC-2 outcome variables (Anxiety, Depression, Hyperactivity, and Inattention). Difference scores were created by subtracting parent scores on the AOS from child scores on the AOS. From this score, the absolute value was used for data analysis. In addition, difference scores for the BASC-2 were created by subtracting parent scores on each study subscale from child scores on the same subscale. For example, $BASC-2\ Depression_{child} - BASC-2\ Depression_{parent} = BASC-2\ Depression_{difference\ score}$. The absolute value was used for data analysis. The result of these analyses indicated that the parent and child AOS scores were significantly different, $t(142) = -.360, p = .016$, indicating that children were more acculturated to the Anglo

American culture than their parents, The result of these analyses also indicated that only the test of the difference between parent and child-ratings on the Depression subscale was significant, $t(141) = 2.474, p = .015$, indicating that the parents endorsed more items regarding their child's depressive behavior than their children did.

To test the hypotheses that discrepancies between acculturation levels of parent and child would predict discrepancies between parent and child reports of behavioral and emotional problems, a series of regression analyses were completed. Prior to conducting the regression tests, correlation analyses for the difference scores were computed (see Table 1 and Table 2).

The results of the analysis from Table 1 indicated that the BASC-2 difference scores (PCAnx, PCDep, PCHyp, and PCInattn) were all positively and significantly correlated with one another, but none of the BASC-2 difference scores were significantly correlated with the acculturation difference scores (PCAOS and PCMOS). This indicates that differences in reporting of clinical phenomena (e.g., inattention) among parents and children co-occur in the same direction (e.g., as differences in parent and child reporting of depression increase, differences in parent and child reporting of anxiety also increase). The results of the analysis from Table 2 indicated agreement between raters on clinical phenomena (e.g., significant correlations between parent and child ratings of depression, anxiety, and inattention). However, when acculturation was examined (i.e., difference scores in acculturation), only child-reported anxiety and depression were correlated with difference scores in MOS.

To test the study hypotheses, a series of regressions were conducted using the difference scores between parent-child AOS and parent-child BASC-2 subscales. As the

Table 1: Correlation Analyses of Difference Scores

	PCAOS	PCMOS	PCAnx	PCDep	PCHyp	PCInattn
PCAOS	1.000					
PCMOS	.128	1.000				
PCAnx	-.098	.174	1.000			
PCDep	-.102	.102	.614**	1.000		
PCHyp	-.009	.122	.389**	.480**	1.000	
PCInattn	-.203	.121	.834**	.777**	.515**	1.000
Mean	-.018	.480	2.547	3.960	-.480	1.920
S.D.	.768	.858	12.526	12.994	14.438	11.784

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

Note: PCAOS=Parent-child Anglo Orientation Scale Difference Score, PCMOS=Parent-child Mexican Orientation Scale Difference Score, PCAnx=Parent-child BASC-2 Anxiety Subscale Difference Score, PCDep=Parent-child BASC-2 Depression Subscale Difference Score, PCHyp=Parent-child BASC-2 Hyperactivity Subscale Difference Score, PCInattn=Parent-child BASC-2 Inattention Subscale Difference Score, CAnx=Child Report BASC-2 Anxiety Score, CDep=Child Report BASC-2 Depression Score, CInattn=Child Report BASC-2 Inattention Score, CHyper=Child Report BASC-2 Hyperactivity Score, PAnx=Parent Report BASC-2 Anxiety Score, PDep=Parent Report BASC-2 Depression Score, PInattn=Parent Report BASC-2 Inattention Score, PHyper=Parent Report BASC-2 Hyperactivity Score.

Table 2: Correlation Analyses of Difference Scores and BASC-2 Scores

	PCAOS	PCMOS	CAnx	CDep	CInattn	CHyper	PAnx	PDep	PIinattn	PHyper
PCAOS	1.000									
PCMOS	.128	1.000								
CAnx	.049	-.284*	1.000							
CDep	.038	-.242*	.685**	1.000						
CInattn	.210	-.044	.327**	.515**	1.000					
CHyper	.016	-.221	.404**	.351**	.509**	1.000				
PAnx	-.074	-.051	.241*	.108	.068	.080	1.000			
PDep	-.089	-.073	.211	.243*	.135	.076	.591**	1.000		
PIinattn	.036	-.058	.193	.253*	.254*	.151	.415**	.643**	1.000	
PHyper	.007	-.091	.163	.232*	.219	.138	.466**	.712**	.728**	1.000
Mean	-.018	.480	48.25	47.83	50.92	50.75	50.84	51.85	50.65	50.25
S.D.	.768	.858	9.71	9.24	10.38	11.72	10.53	11.63	9.96	10.11

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

t-tests between difference scores only showed a clinically significant difference between parent-child depression difference scores and parent-child AOS difference scores, only this regression analysis was completed. The predictor of parent-child difference on the AOS did not account for a significant amount of variance in the parent-child difference on the BASC-2 Depression subscale, ($R^2 = .01$), $F(1,68) = .720$, $p = .399$.

Because part of acculturation is the attitudes, values, and beliefs one has about one's culture of origin, the analyses also included an investigation of discrepancies between parent-child feelings toward their culture of origin (i.e., enculturation), as measured by the Mexican Orientation Scale (MOS) and behavioral outcome. To test this aspect of acculturation, it was predicted that differences between parent and child enculturation levels would predict differences between parent and child reports of behavioral and emotional problems. A series of regressions were conducted using the difference scores between parent-child MOS and parent-child BASC-2 subscales. Difference scores were created by subtracting parent scores on the MOS from child scores on the MOS. The predictor of parent-child difference on the MOS did not account for a significant amount of variance in the parent-child difference on the BASC-2 Anxiety subscale, ($R^2 = .03$), $F(1,68) = 2.116$, $p = .150$, Depression subscale, ($R^2 = .01$), $F(1,68) = .708$, $p = .403$, Hyperactivity subscale, ($R^2 = .015$), $F(1,68) = 1.024$, $p = .315$, or Inattention subscale, ($R^2 = .015$), $F(1,68) = 1.007$, $p = .319$.

Discussion

The purpose of the present study was to examine how identification with a cultural group might impact how parents and children report psychological symptoms. Because previous literature demonstrated that psychological functioning is culturally

dependent and that the perception of behavior lies in the culture of the viewer (Bernal & Scharron-del-Rio, 2001), exploring parent-child differences in perception of psychopathology among a Mexican American sample could help identify what cultural factors these differences are due to. It was hypothesized that discrepancies between acculturation levels of parent and child would predict discrepancies between parent and child reports of behavioral and emotional problems. Although the results did not support this prediction, the results did provide several interesting findings for the field. When parent and child acculturation scores were compared, significant differences between the two groups were found, with children reporting stronger acculturation than their parents. These findings are consistent with previous research indicating that younger generations are likely to be more acculturated to the majority culture than later generations (Chun & Akutsu, 2003; Guaranaccia et al., 2007; Santisteban & Mitrani, 2003).

Tests for differences between parent and children's report on a range of behavioral functioning variables indicated significant findings for depressive symptoms. Specifically, parents reported more depressive symptoms in their children than child self-report. This is an interesting finding as the field of acculturation psychology has often found inconsistent and contradictory findings regarding rates of depression among Mexican American youth. Minsky et al. (2003), for example, found that Mexican American adolescents experienced more depressive symptoms than Caucasian or African American adolescent populations (e.g., Minsky et al., 2003), while Sam (2006) found that Mexican American adolescents and adults experienced similar rates of depression as other ethnicities.

Discrepancies in the literature may be due to the nature of the symptoms under investigation. In general, previous literature usually finds that children report more depressive (or internalizing) symptoms than their parents' report of the child's mental health (Rudolph & Lambert, 2007). One possible explanation for these findings is that more traditionally-oriented parents are better reporters of their children's depressive symptoms. Although this possibility has not been tested in the literature, Carlston and Ogles (2009) suggested that more traditional Hispanics parents may have more contact with their children (e.g., a more traditional Hispanic mother may be more likely to be a stay-at-home mom and have more day-to-day contact with her child as a result) and therefore, more opportunities to observe their child's functioning, thus increasing accuracy of ratings. This explanation, however, may not support the data for the current study since Carlston and Ogles found that more traditional Hispanic parents tend to report similar levels of psychopathology as their children (as compared with Caucasian and African American parents and children), not higher levels of psychopathology.

Another explanation for the pattern in the current study (i.e., parents reporting more depressive symptoms for their children than the children themselves) could be the emphasis on suppression of emotions in traditionally-oriented Mexican families (Canino & Spurlock, 2001). Specifically, for more traditionally-oriented, enculturated Mexican Americans, it is not uncommon to see a pattern whereby suppression of emotions is valued (Canino & Spurlock, 2001). As a group, parents were more enculturated than their children as evidenced by the statistically significant acculturation gap. Expressions of emotion (even nonclinical levels of emotion such as sadness) by children may be interpreted by traditionally-oriented parents as a problem and, in the present sample,

symptoms of depression. Although research has yet to address how expression of emotions in Hispanic families relates to perceptions of pathology, the findings of the present study add to the literature by providing preliminary evidence that more enculturated Mexican American parents may be prone to see behavior as more pathological than their children.

Although parent-child differences in acculturation were found, the initial hypothesis was not supported because parent-child acculturation differences were not predictive of differences in parent-child rating of depressive symptoms. This indicates that despite differences in reporting depression, these differences were not likely due to the pre-existing acculturation gap. Because there are cultural differences in how emotion and behavior are perceived and labeled, it was thought these differences might have a cultural basis. Present results add to the literature by demonstrating that the relation between parent-child acculturation and parent-child behavioral reporting is not a simple linear one. It is unclear why this prediction was not supported. One possibility is that the relation between parent-child acculturation differences and parent-child reporting of child behavioral functioning is more complex and nonlinear. A second possibility is that a third variable such as unique ways that emotions are expressed in Mexican culture could account for this relation. This is notable because Cortes (2003) stressed the importance of directly assessing “idioms of distress” (i.e., unique, qualitative expression of distress that occur within a particular culture) when examining depression in Puerto Rican populations, which indicates that looking at a within-culture perspective might allow one a richer picture of distress for Hispanic populations.

Furthermore, correlational analyses indicated that the acculturation scores were not significantly related to the outcome variables. One explanation for these findings could be that there is no relation between culture and clinical phenomena in Hispanic families. This explanation is unlikely, however, given the amount of research demonstrating links between Hispanic culture and clinical phenomena (e.g., Minsky et al., 2003; Varela et al., 2004; Vazsonyi & Flannery, 1997) and specifically acculturation gaps and clinical phenomena (e.g., Schofield et al, 2008). Although the results of the current study did not support the research hypotheses, the findings have precedent. For example, when Lau et al (2005) examined the potential parent-child acculturation gap in Mexican American families, they did not find that differences between parents and children on the Pan-Acculturation Scale were predictive of disruptive behaviors in children. Santisteban and Mitrani (2003) also failed to find that an acculturation gap explained family dysfunction. Like previous studies, the current results provide support for an acculturation gap between parents and youth, but failed to find that this gap explained differences in reports of behavioral functioning in children. What is evident from the current research, therefore, is that the field of acculturation psychology presents an inconsistent picture. The current findings appear to support the position that acculturation differences can exist without large differences in reporting of psychopathology.

Another explanation for the current findings is that the inclusion of a non-clinical sample of Hispanic parents and children may explain why there was little difference between parent and child ratings on behavioral functioning. As the current sample was recruited from a non-clinical population, base-rate of psychopathology was low.

Previous studies examining parent-child acculturation gaps (e.g., Schofield et al., 2008) included clinical populations (e.g., outpatient community mental health centers) and found an acculturation gap was predictive of behavioral problems. It is likely that the present non-clinical sample had a restricted range of psychopathology that made detection of differences between parent-child reports of psychopathology and acculturation difficult (e.g., the mean T-scores for parent and child depression scales were 51 and 47, respectively).

Another explanation for the current results could be the lack of acculturative stress in the sample assessed. Previous researchers cite acculturative stress as one possible active ingredient in how acculturation is linked to behavioral and emotional problems (Berry, 2006; Cortes, 2003). Berry (2006) indicated in his model of acculturative stress that acculturative stress is linked to behavioral outcomes through two primary pathways. First, is the “shock” (e.g., distress resulting from geographic change, financial loss resulting from migration, and attempts to find homeostasis within a new environment) of repeated interactions, on a group level, with a culture different from one’s own. The greater the difference between the cultures, the greater the shock. This first pathway has been applied in previous literature primarily to the experience of new immigrants and therefore, may not be as relevant to the majority of the current sample.

The second pathway consists of more individual experiences such as contact discrepancy (e.g., differences between how Anglo American families function and Mexican American families function), cognitive control (i.e., individual coping skills such as problem appraisal and how well those skills help the individual adapt), and social support. The theory suggests that the path between acculturation and adaptation is

mediated by the above experiences (i.e., contact discrepancy, cognitive control, and social support). Berry theorized that a proxy for determining if acculturative stress exists in a particular population is psychopathology (i.e., problems in adaptation), such as anxiety or psychosomatic complaints. Because previous studies have included clinical samples, they may have examined populations with high levels of acculturative stress without specifically examining acculturative stress. Applying this model to the present study then would suggest that since low levels of psychopathology were reported it is possible that the present sample experienced little acculturative stress, making unlikely the proposed relation between psychopathology and acculturation differences. Indeed, the mean scores on the measure of psychopathology were below clinical or at-risk levels indicating that the Mexican American sample, both parents and children, were nonclinical.

Under this model, it is possible that the relatively minor, albeit statistically significant acculturative differences evidenced in the present study between parents and children were not sufficient to indicate acculturative stress. This is not to say that populations with acculturative stress always present with psychopathology, only that the current data are not clear on the role acculturative stress plays in reporting of psychopathology or how acculturative differences and acculturative stress are related.

Limits of the current study

The present study adds to the literature by demonstrating that differences in acculturation between parents and children are not necessarily indicative of differences in behavioral reports. Although this result is an important addition to the literature, the study is not without limitations. First, the use of a nonclinical sample could have affected

the findings. It is possible that the inclusion of a community sample may have made it difficult to detect differences in youth behavioral functioning between parents and children due to a low base rate of psychopathology present in the sample. It could also be that even nonclinical populations, if followed over time, would present with behavioral problems resulting from a parent child acculturation gap. The Schofield et al. (2008) study initially found no behavioral problems resulting from an acculturation gap, but discovered that if followed longitudinally for up to five years, one could see behavioral problems emerging as a result of parent-child acculturation differences. Specifically, they found nonclinical internalizing and externalizing scores on the CBCL for children at initial assessment, but at a two year follow-up found clinically significant externalizing scores related to a parent child acculturation gap. This indicates that a sample with parent-child acculturation differences is an important sample to study even if reports of behavioral differences are not immediately present since it is unknown how time will affect these children and their families.

Schofield et al. (2008) hypothesized that the acculturation gap may be more prominent (particularly as an explanation for behavior problems) in families with first generation parents and second generation children as opposed to later generations (e.g., 3rd generation parents and 4th generation children). This is relevant to the current study because the sample of this study had a wide representation of generational statuses for both parents and children with fewer 1st generation families in this study than previous studies on acculturation. As the current population of Mexican Americans in the United States also has a wide representation of generational statuses, the present sample is fairly representative of the Mexican American community in the U.S.; however, the lack of

emphasis on 1st generation parents and 2nd generation youth may have inadvertently affected the results and their consistency with past findings.

Second, it is possible that the intention to capture the interaction one has with culture was not adequately captured by the measurement tools. The purpose of the current study was to examine how the interaction between parent and child acculturation affected behavioral reporting. Although questions about interactions were included in both acculturation (e.g., asking who they associate with) and behavioral (e.g., asking about parent-child relationships) measures, reporting after the fact (as opposed to direct observation) may have limited the ability of the study to capture interactional variables. For example, to capture parent-child interactions in younger children, Eyberg et al. (2004) used direct observation and coding in addition to parent reporting of child functioning. What was not captured in this study, and in similar studies that have relied on self and parent report, are actual interactions between parents and children.

At its core, the acculturation gap is about an interaction of values, beliefs, and behaviors between two different generations. Even if a portion of these values, beliefs, and behaviors can be assessed through rating forms, it is highly unlikely (given the empirical literature concerning parent-child interactions) that it can capture all aspects. The relationship between parents and children is likely very sensitive to mutual influence from each party (Robin & Foster, 2002). Psychologists have developed ways to capture more subtle and nuanced ways in which parent and child influence each other (e.g., Eyberg, Nelson, & Boggs, 2008; Robbins, Horigian, Szapocznik, & Ucha, 2010). In addition, cultural differences may be just as nuanced, especially when applied to the parent child relationship. Limiting our data on cultural differences between parents and

children to rating scales forces researchers to integrate the two (i.e., integrate cultural nuances and parent child nuances) versus an observer, who can capture these nuances in real time. Future research should address ways in which researchers can develop an observational system that can be applied to parent-child relationships in culturally diverse families.

Third, the measure used in the present study was not able to assess all facets of Mexican American acculturation, relying primarily on reporting of behaviors. This is not only a limitation with the current study, but with the field of acculturation in general (Cabassa, 2003; Zane & Mak, 2003). Throughout the past decades, the field has seen a progression from proxy variables such as language and generational status being used to approximate acculturation (or lack thereof) to more sophisticated measures such as rating forms (Dana, 1996). Currently, tools for capturing acculturation are simply a better proxy, not empirically validated assessment tools. The current measures are primarily behavioral in nature (e.g., asking what foods a person eats, what language they speak, and what friends they associate with). Cognitive, emotional, and spiritual components are missing. In other words, beliefs, attitudes, and values, the very definition of what makes up acculturative status, are missing in current measures. What may also be missing is specific examination of acculturative stress and especially how this affects parent-child interactions.

Areas of future research

Although the results did not fit with the study predictions, the findings do provide fertile ground for future research. First, previous studies examining acculturation have used primarily first generational groups and rarely used a range of participants from

different generational statuses (Ward & Kagitcibasi, 2010). The need for studies with samples of Mexican Americans from later generations is important and may be a starting point for future research. For example, the majority of research on Mexican American acculturation is actually research on first generation Mexican Americans (Cabassa, 2003). Generational status matters because the story of an individual's experience in this country is important for subsequent mental health (e.g., an individual fleeing oppression who was given political asylum vs. an individual whose home has been in his/her family for centuries) (Chun & Akutsu, 2003). This can greatly affect the experience of acculturation for that individual or group and therefore, researchers need to broaden their samples to reflect such a diverse range of experiences. As acculturation measurement research currently stands, Hispanic acculturation measures are normed solely on a first generation population (Cabassa, 2003). Because of such norming practices what constitutes "traditional Mexican" in these measures is based on a first generation, immigrant population. This is typically captured in terms of behavioral phenomena, such as what language a person speaks. As a result, the notion of "traditional Mexican" excludes a great number of Mexican Americans since what constitutes "traditional Mexican" may be very different in a later generation (e.g., 5th generation Mexican Americans may not place as high a value on what language a person speaks). Future research on acculturation measurement would, therefore, have a broadened sample, including multiple generations, that reflects the diversity of experiences among Mexican Americans of different generational statuses (e.g., how do first and fifth generation Mexican Americans differ among the importance placed on language, family, or spirituality).

Second, different approaches to measurement of acculturation may be needed to capture different aspects of acculturation that are not easily assessed by self-report measures. For example, brief observation and coding systems similar to those used in child therapy (e.g., Eyberg et al., 2004) or marital therapy (e.g., Gottman, 2001) may be a direction acculturation psychology needs to move toward to assess interactions between parents and children in regards to acculturation. Such a system could be based in current acculturation theory (e.g., Berry's theory of acculturative stress) and code for acculturative processes (e.g., collectivism vs. individualism) based on observing parents and children problem-solving situations (e.g., discussing who is responsible for which chores in the household). This would be similar to how Brief Strategic Family Therapy (BSFT) therapists assess family processes with their clients (Robbins et al., 2010) but instead of clinical symptoms being the focus, cultural processes would be the focus.

Such a system would not be meant to completely replace self-report measures. This suggestion is also not meant to imply that self-report measures have no merit, only that they could be supplemented by these alternative approaches to assessing interactional variables. It seems appropriate for future research that the method used match the phenomena under examination. A method that directly observes interactions between parent and child would greatly add to the literature by demonstrating the specific acculturation differences (e.g., use of language among family members) rather than only what individuals think, in hindsight, such differences are. Specifically, a coding method that assesses specific cultural processes within the parent-child relationship in real time (such as acceptance or rejection of gender roles between parents and children when discussing family chores) would be useful in determining what are the central issues

surrounding parent-child acculturation gaps. This would be similar to how Gottman (1999) observed married couples and determined the central issues surrounding troubled marriages (i.e., the “four horsemen” of criticism, contempt, stonewalling, and defensiveness). Such information gained from observation of parent-child acculturation differences might be able to help in determining how these issues (e.g., gender role conflict) contribute to overall family functioning and mental health.

Third, the finding of significant differences between parents and children regarding depressive symptoms highlights the need to examine expression of emotions in Mexican American families. Specifically, future research needs to determine if reporting traditional Mexican American values results in more psychopathologizing of children and adolescents. For example, do traditionally oriented parents sometimes see expressions of sadness or fear as “depression” or “panic?” Although not empirically clear, qualitative research suggests that in a clinical setting more enculturated parents report higher levels of psychopathology in children (Falicov, 2005). Although Falicov included a clinical sample, the results suggest that an examination of expression of emotions similar to how Cortes (2003) examined “idioms of distress” would be one method to study expression of emotions. Cortes used three different stages in her examination of depressive symptoms in Puerto Ricans: 1) a qualitative phase to develop measures of idioms of distress, 2) a quantitative phase to assess the measures psychometric properties, and 3) a model-testing phase to assess the relationship between idioms of distress and acculturation. This same method could be duplicated in an adolescent population to examine expressions of sadness, or other emotions, in Mexican Americans.

Fourth, the lack of behavioral differences even in the presence of an acculturation gap is significant and requires more examination. Such examination requires focusing on the specific factors surrounding the process of acculturation (such as acculturative stress). Regarding the specific processes surrounding acculturation, acculturation status was not predictive of behavioral differences when regression analyses were conducted. One possibility raised is that acculturative stress was not present and, therefore, no behavioral differences were present. As a result, seeing if acculturative stress is the “active ingredient” in how an acculturation gap affects perception of behavior (particularly in the context of the parent child interaction) is one starting point for future research. Since acculturative stress has been theorized to play a role in how the presence of an acculturation gap can affect clinical phenomena, this represents an appropriate starting point for understanding how acculturation and behavior are related. Berry’s model (2006) on the mechanisms of acculturative stress at both a group and individual level could be a starting point to examine how acculturation and adaptation are related.

Finally, current research on the acculturation gap is inconsistent as a whole, with some studies finding significant differences in behavioral reporting and some finding none. Complete consistency of findings across studies may not be possible. A more specific and attainable goal for future research is examination of how an acculturation gap can exist without expectation of dysfunction. The majority of studies examining the acculturation gap, similar to the current study, have examined how an acculturation gap affects clinical symptoms. Although an emphasis on clinical populations is important, it is equally important that research address typical families and youth where acculturation differences exist but no clinical symptoms are reported. These results could help establish

a type of baseline of acculturative status to compare to families who present with both an acculturation gap and clinical symptoms.

It is understandable why the direction in the field of acculturation psychology has often looked at why an acculturation gap predicts (or contributes to) psychopathology instead of examining normative acculturation differences. The original anecdotal evidence from outpatient clinical settings suggested that culturally diverse families presenting with high levels of problems (e.g., psychopathology or family conflict) also presented with significant differences in the acculturation styles of parents and children (Birman, 2006, Falicov, 1998). However, this pattern may have presented a logical fallacy which acculturation research in psychology unintentionally integrated into later studies. Specifically, the fallacy is that since families with dysfunction had acculturation gaps, then it followed that families with acculturation gaps would have family dysfunction or psychopathology. Awareness of this fallacy is an important first step in future research. This first step could be important in assisting the clinician in both cultural competency and effective service delivery of treatment by empirically demonstrating that, like other psychological phenomena (e.g., anxiety, anger, happiness, or social skills) the clinician must understand typical cultural processes before they can understand atypical cultural processes.

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