EMPIRICAL RESEARCH

Acculturation, Enculturation, and Symptoms of Depression in Hispanic Youth: The Roles of Gender, Hispanic Cultural Values, and Family Functioning

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Abstract The risk for depression increases as Hispanic youth acculturate to U.S. society. This association is stronger for Hispanic girls than boys. To better understand the influence of culture and family on depressive symptoms, we tested a process-oriented model of acculturation, cultural values, and family functioning. The data came from Project RED, which included 1,922 Hispanic students (53 % girls; 86 % were 14 years old; and 84 % were U.S. born) from Southern California. We used data from 9th to 11th grade to test the influence of acculturation-related experiences on depressive symptoms over time. Multi-group structural equation analysis suggested that both family conflict and cohesion were linked with depressive symptoms. Hispanic cultural values were associated with family cohesion and conflict but the strength and direction of these relationships varied across cultural values and gender. For girls and boys, *familismo* and *respeto* were associated with higher family cohesion and lower family conflict. Moreover, gender roles were linked with higher family cohesion in girls but not in boys. These results indicate that improving family functioning will be beneficial for boys' and girls' psychological well-being. This may be achieved by promoting *familismo* and *respeto* for boys and girls and by promoting traditional gender roles for girls.

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Introduction

Adolescence is a critical developmental period associated with increased vulnerability for depressive symptoms (e.g., Weersing and Brent 2006), and gender differences in depression generally emergence during adolescence (e.g., Nolen-Hoeksema and Girgus 1994). Research indicates that, by the end of adolescence, girls are two to three times more likely than boys to experience depressive symptoms (e.g., Hankin 1998). Moreover, theory and research suggests that girls' higher vulnerability to interpersonal difficulties, compared to boys' vulnerability, heightens girls' risk for depression (e.g., Nolen-Hoeksema and Girgus 1994). Girls' higher sensitivity to interpersonal difficulties may explain gender differences in symptoms of depression.

Hispanic youth in the United States (U.S.) are at risk for symptoms of depression (e.g., Crockett et al. 2005; Potochnick and Perreira 2010). Compared to non-Hispanic White youth, Hispanic youth face the challenges associated with immigration and adaptation to a new and different society (e.g., Potochnick and Perreira 2010; Zayas et al. 2005). Hispanic youth also experience higher levels of depressive symptoms than youth from other races and ethnicities (e.g., Saluja et al. 2004), and Hispanic girls experience higher levels of depressive symptoms compared to Hispanic boys (Lorenzo-Blanco et al. 2011). Hispanic girls are also more likely to attempt suicide than are girls from other races or ethnicities (Zayas et al. 2005). These findings indicate that Hispanic youth are at risk for experiencing symptoms of depression and this risk is particularly high for Hispanic girls.

Theories of youth depression suggest that symptoms of depression in Hispanic youth may be influenced by problematic family relationships (Rudolph et al. 2000). This might be especially true for Hispanic girls who may experience or perceive more problematic family lives than boys, due to girls' higher sensitivity to difficulties in family life (Zayas et al. 2005; Rudolph et al. 2000). As a result, Hispanic girls my experience higher levels of depressive symptoms than their male counterparts. Moreover, research indicates that symptoms of depression in Mexican-origin youth (62 % U.S. born) increase with acculturation to the dominant U.S. culture (Gonzales et al. 2006) and, in one study with a diverse sample of Hispanic youth (86 % of Mexican–American origin and 86 % were U.S. born), acculturation was associated positively with depressive symptoms in girls but not boys (Lorenzo-Blanco et al. 2011). These findings suggest that Hispanic girls' (particularly Mexican–American girls') mental health is influenced more negatively by the acculturation process than boys' mental health.

Researchers propose that acculturation is often accompanied by a deterioration in family functioning through a loss of Hispanic cultural values which are thought to promote family cohesion and discourage family conflict (Gonzales et al. 2006; Zayas et al. 2005). Moreover, acculturation has been associated with increased family conflict and reduced family cohesion in Hispanic families (Miranda et al. 2000; Sullivan et al. 2007), and family functioning has been linked with depressive symptoms in Mexican-origin youth (62 % U.S. born) (Gonzales et al. 2006) and a diverse sample of Hispanic adults (Cook et al. 2009). It is, therefore, possible that acculturation leads to increased depressive symptoms in Hispanic youth through loss of Hispanic cultural values that, in turn, may lead to lower family cohesion and higher family conflict. This process may explain why Hispanic youth's mental health is affected negatively by acculturation and why girls' mental health is affected more negatively by acculturation than is the mental health of boys. The current study integrated extant research on Hispanic acculturation, cultural values, family functioning, and depression to better understand why acculturation influences Hispanic youth's symptoms of depression and why girls appear to be particularly influenced by this process.

It is important to understand factors associated with elevated risk for depressive symptoms among Hispanic youth. Youth depression can lead to serious and chronic mental and physical health problems later in life (Weersing and Brent 2006). U.S. Hispanic youth belong to the largest and fastest growing group of young people in the U.S., constituting about 22 % of all U.S. children (Pew Hispanic Center 2009; U.S. Census Bureau 2010). Knowledge about factors associated with depression in Hispanic youth can inform prevention and intervention strategies aimed at reducing risk for these youth.

Acculturation, Enculturation, and Depressive Symptoms in Hispanic Youth

Acculturation among Hispanic youth has been viewed as the acquisition of cultural elements of the dominant U.S. culture (Cabassa 2003), and as such acculturating Hispanic youth can experience changes in their attitudes, behaviors, practices, interpersonal relationships, language, values, and ethnic identifications (Cabassa 2003; Schwartz et al. 2010). Traditionally, acculturation was viewed as a one-dimensional process in which Hispanic youth completely disengaged from or never learned about their Hispanic culture because they adopted aspects of the dominant U.S. culture (Cabassa 2003). More recent multidimensional acculturation theory suggests that Hispanic youth can acculturate and enculturate simultaneously (Cabassa 2003), and enculturation is the process by which Hispanic youth learn and engage in the practices, values, and identifications of their Hispanic culture (Schwartz et al. 2010). Acculturation and enculturation constitute separate and independent processes (Schwartz et al. 2010) and the extent to which Hispanic youth acculturate and/or enculturate can vary among these youth. Enculturation and acculturation also differentially may influence Hispanic youth's mental health (Schwartz et al. 2010).

Scholars propose that enculturation protects Hispanic youth from depressive symptoms while acculturation increases their risk (Vega and Sribney 2008). Consistent with this notion, acculturation has been associated with the risk for depressive symptom among Hispanic youth (Gonzales et al. 2006) but less is known about the associations of enculturation with depressive symptoms. Researchers propose that enculturation is protective because it comes with protective cultural values that promote positive, close-knit interpersonal family relationships (e.g., Gonzales et al. 2006). These Hispanic cultural values can erode with acculturation (e.g., Gonzales et al. 2006), thereby putting family harmony at risk.

Cultural Values and Acculturation

According to Ogbu (1994), child socialization is a culturally organized formula that promotes youth well-being, and parents employ formulas that help their children grow into competent adults. Hispanic parents have been described as socializing their children according to cultural values and styles of interaction that differ from those of the dominant U.S. culture (Cauce and Domenech-Rodriguez 2002; Zayas

et al. 2005). For example, parents of Hispanic youth place a high emphasis on family closeness, close interpersonal family relations, respect from adults, and traditional gender roles (Villanueva et al. 2008). Consistent with these parenting practices, which according to Ogbu (1994) promote youth well-being, Hispanic youth endorse stronger positive attitudes towards family support and respect than non-Hispanic White youth (Fuligni et al. 1999). However, endorsement of these attitudes and Hispanic cultural values in youth can erode with acculturation to the dominant U.S. culture and loss in Hispanic cultural values are thought to increase Hispanic youth's risk for symptoms of depression (e.g., Gonzales et al. 2006; Zayas et al. 2005).

The cultural values of *familismo* and *respeto* promote family closeness and interdependence. *Familismo* emphasizes trust between family members, loyalty to the family, and a general orientation to the family (Rivera et al. 2008). The cultural value of *respeto* is closely related with *familismo*. It governs positive reciprocal interpersonal relations (Azmitia and Brown 2002) and dictates deferential behavior towards family, thereby maintaining family harmony (Torres 1998). Evidence indicates that *respeto* is salient in the parenting of Mexican and Dominican mothers (Calzada et al. 2010). Moreover, acculturation has been associated with reduced *familismo* and *respeto* (e.g., Gil et al. 2000; Miranda et al. 2000) and lower *familismo* and *respeto* were associated with increased problem behavior in a diverse sample of Hispanic immigrant youth (Gil et al. 2000).

Hispanic families also have been described as socializing their children according to *traditional gender role values* (Zayas et al. 2005) and, as a result, girls may enjoy less freedom than their male counterparts (Raffaelli 2004). Scholars postulate that Hispanic girls acculturate faster than boys, because they embrace the freedom that comes with less traditional gender roles (Gil and Vazquez 1996). Mexican–American seventh- and eighth-grade girls, indeed, endorsed more liberal gender role attitudes than boys (Valenzuela 1993), but it remains unclear whether these differences are due to acculturation to the dominant U.S. culture.

Fatalismo as a cultural value encompasses the belief that one is powerless in altering negative life circumstances (Unger et al. 2002). Although *fatalismo* has been linked with increased depressive symptoms in an ethnically diverse sample (Roberts et al. 1997), it is thought to be a culturally-rooted *adaptive* response to unfavorable life situations (Cuéllar et al. 1995a). *Fatalismo* has been described as promoting social support and belonging in collectivistic cultures, such as Hispanics, but to increase risk for depression in individualistic cultures (Neff and Hoppe 1993). Although *fatalismo* may be directly linked

with mental health, it also may promote family closeness and support among Hispanics, thereby influencing youth well-being.

Family Functioning, Cultural Values, and Depressive Symptoms

The Hispanic family has been described as a vital source of support that is made up of close-knit, cohesive, and interdependent relationships (Rivera et al. 2008). Close-knit family relationships and strong family cohesion are thought to be a function of Hispanic cultural values that promote family cohesion. For example, the strong emotional bonds measured by *familismo* promote family support and cohesion (Rivera et al. 2008); but less is known how *respeto*, traditional gender roles, and *fatalismo* influence family functioning. Erosion of Hispanic cultural values as a result of acculturation can result in reduced family cohesion (Miranda et al. 2000). Family cohesion entails perceptions of family unity and communication (Olson et al. 1982). Family closeness and cohesion have been shown to protect against external stress such as family conflict (e.g., Rivera et al. 2008; Unger et al. 2009), and low family cohesion relates to increased psychological distress (Rivera et al. 2008). Evidence indicates that acculturation is linked with reduced family cohesion (Miranda et al. 2000), and this decrease in family cohesion may explain why youth's risk for symptoms of depression increases with acculturation (Loukas and Prelow 2004).

Just as Hispanic cultural values promote family cohesion and closeness, they also can discourage family conflict (Gonzales et al. 2006). Thus, changes in cultural values in Hispanic youth additionally may lead to more family conflict and disharmony (Gonzales et al. 2006; Zayas et al. 2005). Family conflict has been linked with increased depression in Mexican-origin youth and a diverse sample of Hispanic adults (Gonzales et al. 2006; Cook et al. 2009). Researchers also have revealed a positive association between acculturation and family conflict in Hispanic families (Sullivan et al. 2007) and adults (e.g., Cook et al. 2009), possibly mediating the path between acculturation and depression. Thus, loss of cultural values as a result of acculturation may lead to increased family conflict, possibly explaining why acculturation puts Hispanic youth at risk for depression. If, indeed, Hispanic girls acculturate faster than Hispanic boys (Gil and Vazquez 1996), they also may endorse lower adherences to cultural values and subsequently experience more difficult family lives (reduced family cohesion and increased family conflict) than boys. These processes may explain why girls are affected more negatively by acculturation than are boys (Zayas et al. 2005).

Interpersonal Experiences, Gender, and Depressive
Symptoms

Interpersonal theories of youth depression posit that problematic interpersonal experiences with families can lead to increased depressive symptoms in youth (Rudolph et al. 2000). Additionally, these theories and related research indicate that girls are more vulnerable to interpersonal problems than boys (Rudolph 2002). This is because girls rely more on interpersonal relationships as a source of social support, their sense of worth, and their emotional well-being (e.g., depressive symptoms). This reliance on interpersonal relationships places them at higher risk for depressive symptoms compared to boys (Nolen-Hoeksema and Girgus 1994). As a result, girls tend to experience or perceive more interpersonal difficulties and symptoms of depression than boys when faced with interpersonal family problems (Rudolph 2002). U.S. Hispanic youth can experience higher levels of interpersonal family difficulties (i.e., more family conflict and lower family cohesion) as they acculturate to the dominant U.S. culture (e.g., Gonzales et al. 2006; Miranda et al. 2000). If girls are more sensitive to problematic family relationships, such as frequent family conflict and low family cohesion, they also may be more affected by acculturation than their male counterparts. This may explain why the association of acculturation with depressive symptoms is stronger for Hispanic girls than boys (Lorenzo-Blanco et al. 2011).

Research with Hispanic adults has revealed that Hispanic women's psychological well-being is influenced more negatively by family conflict than is the well-being of Hispanic men, even when men and women reported similar levels of family conflict (Sarmiento and Cardemil 2009; Aranda et al. 2001). However, questions remain regarding

whether these findings generalize to Hispanic youth. This knowledge is important because acculturation to the U.S. culture is accompanied frequently by increased family conflict and loss of family cohesion for Hispanic families (e.g., Céspedes and Huey 2008; Miranda et al. 2000), which may be the result of loss in Hispanic cultural values.

The Current Study

In the current study, we integrated empirical research and scholarship on acculturation, enculturation, cultural values, family functioning and well being to better understand the process by which acculturation may lead to increased depressive symptoms in Hispanic youth. We also investigated how gender moderated this process because prior research has shown that girls are differentially affected by acculturation than are boys. The integration of prior research into process-oriented models is an important next step on furthering our understanding of why acculturation is associated with increased risk for symptoms of depression. Although prior studies have made enormous contributions to our understanding of the roles of acculturation, cultural values, and family functioning on the mental health of Hispanic youth, it has been limited in that it has not examined how these experiences and processes can influence and relate to each other, thereby, leading to lower or higher levels of depressive symptoms.

Guided by the research and theory discussed above, we developed the model illustrated in Fig. 1. Consistent with multidimensional acculturation theory, we examined the associations of acculturation and enculturation with Hispanic cultural values, family functioning (family cohesion and conflict), and depressive symptoms. As shown in our model

Fig. 1 Hypothesized model, showing all expected relationships and their predicted valence
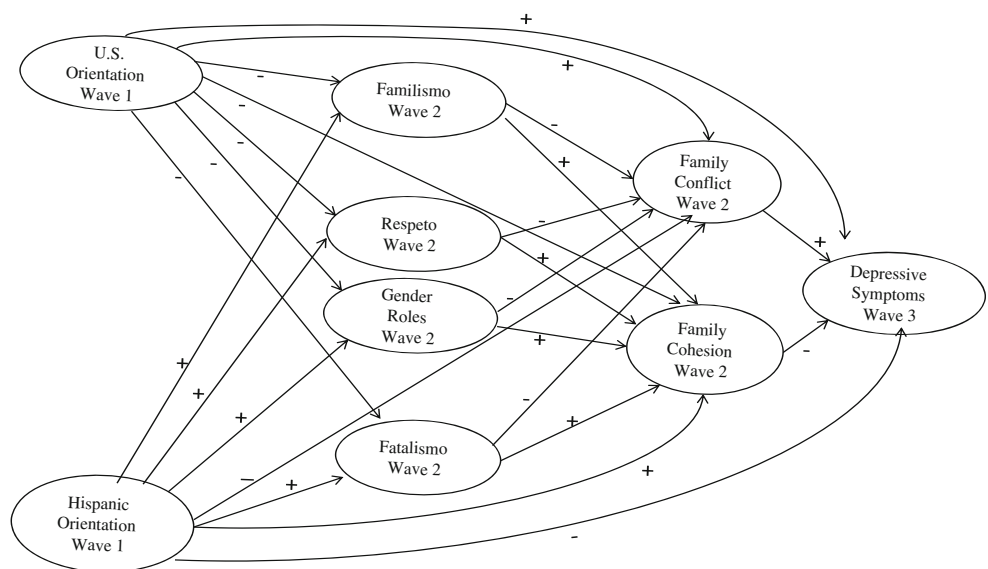
(Fig. 1), we hypothesized that acculturation (wave 1) will be associated negatively with Hispanic cultural values (wave 2), and enculturation (wave 1) will be associated positively with cultural values (wave 2). Further, we expected Hispanic cultural values (wave 2) to be associated negatively with family conflict (wave 2) and to be associated positively with family cohesion (wave 2). Finally, we expected family conflict (wave 2) to predict increased depressive symptoms (wave 3) and family cohesion (wave 2) to predict lower depressive symptoms (wave 3). We also expected acculturation and enculturation to be linked indirectly with depressive symptoms by way of family conflict and cohesion. We also anticipated gender effects, and we hypothesized the associations of cultural values with family functioning to be stronger for girls than boys, and family conflict and cohesion to predict more strongly depressive symptoms in girls.

Method

Participants

Participants included 1,922 Hispanic students who participated in Project RED (Reteniendo y Entendiendo Diversidad para Salud), a 3-wave study of acculturation and substance use among Hispanic youth from Southern California (Unger et al. 2009). Students were 53 % female, and 86 % of the students were 14 years old. Students self-identified as Latino/a or Hispanic, and 84 % of the students were born in the U.S. The majority of the students (84 %) had a Mexico born parent, grandparent or great-grandparent, followed by the U.S. (29 %), El Salvador (9 %), Guatemala (6 %), Honduras (1 %), and Spain (1 %). Among the sample that had either a U.S. born parent, grandparent or great-grandparent ($n = 551$), 6.4 % had a U.S. born father with a foreign-born mother, 17.8 % had a U.S. born mother with a foreign-born father, and 30 % had both a U.S. born father and an U.S. born mother.

Over half of the students (54 %) reported speaking "English and another language equally" at home, 16 % of the students reported "speaking mostly English" at home, 13 % reported "speaking mostly another language" at home, 12 % reported "speaking only English at home," and 5 % reported "speaking only another language" at home. Similarly, about 35 % of the students reported speaking "mostly English" with friends, 33 % reported speaking "only English" with friends, and 29 % reported speaking "English and another language equally" with friends. Among students who reported "speaking mostly or only another language at home" ($n = 328$), 35 % reported "speaking English and another language equally with their friends," 34 % reported "speaking mostly English with their friends," 17 % reported "speaking only English with

their friends," 9 % reported "speaking mostly another language with their friends," and 5 % reported "speaking only another language with their friends."

Data Source and Procedure

Adolescents were enrolled in the study when they were in 9th-grade, attending seven high schools in the Los Angeles area. Schools were invited to participate if they contained at least 70 % of Hispanic students, as indicated by data from the California Board of Education. Sampling included an emphasis on schools with a wide range of socioeconomic characteristics. Census data was used to obtain an estimate of the median annual household incomes of the ZIP codes served by the schools. These estimates ranged from $ 29,000 (poorest zip code median income) to $ 73,000 (richest zip code median income), according to 2000 census data. Because students were sampled from seven schools, we tested for intraclass correlations in our independent and dependent variables. These intra-correlations were low and did not affect the results. In other words, the low intraclass correlations indicated that there was more variation among students in any of the seven schools than between the seven schools in regards to our dependent and independent variables. This suggests that the schools were similar to each other and had within-school variation on our independent and dependent variables.

The 9th grade survey (Year 1) was administered in the Fall of 2005, the 10th grade survey (Year 2) in the Fall of 2006, and the and 11th grade survey (Year 3) in the Fall of 2007. In 2005, all 9th—graders attending selected schools ($n = 3218$) were invited to participate in the survey. Of those, 75 % ($n = 2,420$) provided parental consent and student assent. Of the 2,420 students who provided consent and assent, 2,226 (92 %) completed the survey in 9th grade. Of the 2,226 students who completed the 9th grade survey, 1,773 (80 %) also completed surveys in 10th and 11th grade with 182 (8 %) students completing a survey in 10th grade but not in 11th grade, 50 students (2 %) completing a survey in 11th grade but not in 10th grade, and 217 (10 %) students were lost to attrition before the 10th grade survey. Because the current study investigated Hispanic acculturation, we only retained data from students who self-identified as either Hispanic, Latino/a, Mexican, Mexican–American, Chicano/a, Central American, South American, Mestizo, La Raza, or Spanish in Year 1 ($n = 1,922$). We used data from Years 1, 2, and 3.

Measures

Acculturation and Enculturation

Adolescents responded to 10 items taken from a short form of the Revised Acculturation Rating Scale for Mexican–

Americans (ARSMA-II; Cuéllar et al. 1995b). Five items came from the Anglo orientation and five from the Hispanic orientation subscales (see Unger et al. 2009 for a detailed description). Adolescents indicated on a Likert Scale, ranging from 1 (not at all) to 5 (almost always/ extremely often), how much they did or enjoyed certain activities (e.g., speaking Spanish/English, reading books in English, and watching TV in Spanish). The Cronbach's alphas were .74 for U.S. Orientation and .87 for Hispanic Orientation.

Family Cohesion

Family cohesion was assessed with six questions selected from the FACES-II scale (Olson et al. 1982). The six questions were selected because they had the highest factor loadings in a pilot study with a comparable sample (Wagner et al. 2010). The FACES scale is one of the most widely used family assessment tools. It has been used in the U.S. and cross-culturally. Sample items included: "Family members feel very close to each other," "Our family tries new ways of dealing with problems," and "Family members like to spend their free time with each other." Response choices ranged from 1 (almost never) to 6 (almost always). Higher scores represent more family cohesion (Cronbach's α = .77).

Family Conflict

Family conflict was measured with six items from the FACES-II scale (Olson et al. 1982). The six items were selected because they had the highest factor loadings in a pilot study with a comparable sample (Unger, unpublished data). Sample items included, "We have difficulty thinking of things to do as a family," Family members avoid each other at home," and Family members are afraid to say what is on their minds." Response choices ranged from 1 (almost never) to 6 (almost always). Higher scores represent more family conflict (Cronbach's α = .69).

Familismo

Four items assessed the cultural value of *familismo*. Items that were relevant to adolescents were selected from existing adult familism scales to form an adolescent familism scale. Three of the items came from the familism scale described by Sabogal et al. (1987), and one item came from the familism scale described by Cuéllar et al. (1995a, b). The four items had the highest factor loadings in a subsequent study (Unger et al. 2002). Youth indicated on a scale ranging from 1 (definitely no) to 4 (definitely yes) the likelihood with which they or their families would engage in specific family oriented behaviors. Sample items were

"If one of my relatives need a place to stay for a few months, my family would let them stay with us" and "I expect my relatives to help me when I need them." Higher scores represent greater *familismo* (Cronbach's α = .79).

Respeto

Four items assessed the cultural value of *respeto*. The four items came from a study with youth in Southern California (Unger 2006). Sample items included "It is important to honor my parents" and "It is important to respect my parents." Youth indicated the degree to which they agreed with a series of statements. Response options ranged from 1(definitely no) to 4 (definitely yes). Higher scores reflect more *respeto* (Cronbach's α = .89).

Traditional Gender Roles

We used seven items to assess traditional gender roles. The items were adapted from the Multiphasic Assessment of Cultural Construct (MACCSF) (Cuéllar et al. 1995a, b), and they were selected because they had the highest factor loadings on their respective scales and did not load highly on other scales. Adolescents indicated on a scale ranging from 1 (strongly disagree) to 4 (strongly agree) the degree to which they agreed with certain statements like "Boys should not be allowed to play with dolls and other girls' toys" and "Some equality in marriage is a good thing, but the father ought to have the main say in family matters." Higher scores reflect a greater endorsement of traditional gender roles (Cronbach's α = .80).

Fatalismo

Fatalismo was assessed with four items adapted from the MACCSF (Cuéllar et al. (1995a, b). The four items were selected because they had the highest factor loadings on their respective scales and did not load highly on other scales. Youth indicated on a scale ranging from 1 (definitely no) to 4 (definitely yes) the degree to which they endorsed a series of fatalistic beliefs. Sample items included "It's more important to enjoy life now than to plan for the future" and "I live for today because I don't know what will happen in the future." Higher scores represent more *fatalismo* (Cronbach's α = .78).

Depressive Symptoms

The Center for Epidemiological Studies Depression Scale (CES-D) was used to assess adolescents' depressive symptoms (Radloff 1977). The CES-D consists of 20 items and it has been validated for use with Hispanic youth (Crockett et al. 2005). The CES-D is widely used to assess

depressive symptoms in survey studies and it has been used as a screening tool for depression, with a clinical cut-off score of 16 indicating risk of clinical depression (Crockett et al. 2005; Radloff 1991). In the current study, adolescents indicated, on a scale ranging from 1 to 4, how often they had experienced any given symptom in the past week. Response choices were: 1 = less than 1 day or never; 2 = 1–2 days; 3 = 3–4 days; and 4 = 5–7 days. Sample items included: (1) "I felt sad," (2) "I could not get going," and (3) "I felt lonely." Higher mean scores indicated higher levels of depressive symptoms (Cronbach's α = .89). Clinical cut-off scores were calculated by first recoding all twenty items so that items would range from 0 (less than 1 day or never) to 3 (5–7 days). Next, we summed up all the 20 items and created a dichotomous variable (1 = a sum of 16 or higher; 0 = a sum of 15 or lower).

Demographic Characteristics

Age, gender, socio-economic status (SES), and youth nativity were self-reported. We used father's and mother's education as indicators of SES. Students responded to the following question once for father's education and once for mother's education; "What is the highest grade completed by your father/mother?" Response options were: 1 = 8th grade or less, 2 = Some high school, 3 = High school graduate, 4 = Some college, 5 = College graduate, 6 = Advanced degree. Students who did not know their father's or mother's educational level were treated as missing values. Of the 1,922 students who filled out the wave 1 survey, 620 did not know their father's education, 501 students did not know their mother's education, 30 students had a missing value for their father's education, and 23 students had a missing value for mother's education.

Analyses

We utilized SPSS 19.0 (SPSS Inc. 2011) to conduct descriptive analyses and bivariate correlations for all study variables. We tested for gender differences in all study variables. T tests were used for continuous variables and Chi-square tests for categorical variables.

We used MPLUS Version 6.1 (Muthén and Muthén 2010) to perform structural equation modeling. Missing data were handled in MPLUS 6.1 using full-information maximum likelihood (FIML) (Muthén and Muthén 2010), which uses all the data available simultaneously to calculate parameter estimates (Kline 2005). FIML has been demonstrated to be superior to other missing data techniques (e.g., list-wise and pair-wise deletion) in terms of aspects of model estimation, bias, and efficiency, and relatively equivalent to multiple imputation techniques (Enders and Bandalos 2001).

Results

Descriptive Analyses

Table 1 shows demographic characteristics for the overall sample at wave 1 ($N = 1,922$), for girls and boys separately. The mean age was 13.97 years (SD = 0.4), and boys were slightly older ($M = 14.0$, SD = 0.4) than girls ($M = 13.97$, SD = 0.4), $t(1,817) = -2.20$, $p < .05$. Girls had higher mean scores on U.S. and Hispanic orientations compared to boys, $t(1,750) = -8.80$, $p < .001$ and $t(1,840) = -5.13$, $p < .001$, respectively. Girls also scored higher on *familismo*, $t(1,608) = -4.18$, $p < .001$; *respeto*, $t(1,620) = -2.27$, $p < .05$; *fatalismo*, $t(1,700) = -2.60$, $p < .05$; and depressive symptoms, $t(1,789) = -10.58$, $p < .001$. Boys, on the other hand, had higher mean scores on traditional gender roles, $t(1,691) = 18.01$, $p < .001$. Moreover, about 32 % of youth met the standard clinical cut-off for depressive symptoms, and girls (43 %) were twice as likely to meet the clinical cut-off score than boys (21 %), $\chi^2(1, n = ,783) = .572$, $p < .001$.

Table 2 shows correlations among all variables used in the analyses. As indicated, U.S. orientation but not Hispanic orientation was associated with higher levels of depressive symptoms. Both U.S. and Hispanic orientations were associated positively *familismo* and *respeto*, but only U.S. orientation was associated with traditional gender roles and this association was in the negative direction. Moreover, Hispanic orientation but not U.S. orientation was associated with family cohesion (in the positive direction) and family conflict (negative direction). While family cohesion was associated with lower levels of depressive symptoms, family conflict was associated with higher levels of depressive symptoms. Lastly, *familismo*, *respeto*, and gender roles were associated positively with family cohesion. *Familismo* and *respeto* (but not gender roles) were associated with lower levels of family conflict and *fatalismo* was associated with higher levels of family conflict.

Although many of these correlations were statistically significant, their magnitude was small to moderate, suggesting low multicollinearity. We also conducted a multicollinearity diagnostic test in version 19.00 of SPSS, which further indicated that multicollinearity was not a problem. The variance inflation factors (VIF) were low, ranging from 1.01 to 1.63. This indicates that the variances of the estimated predictors were not inflated and therefore, multicollinearity was not a problem in subsequent analyses.

Structural Equation Modeling

We first randomly assigned and averaged items for the twenty CES-D items into a latent construct of three

Table 1 Descriptive characteristics for overall sample, girls, and boys

Variables	Overall sample (N = 1,922) N (%) or M (SD)		Girls (n = 986) N (%) or M (SD)		Boys (n = 890) N (%) or M (SD)	
Age (in years)						
12 years or younger	1	0.1	1	0.1	–	–
13 years	144	7.5	77	7.8	62	7.0
14 years	1,608	83.7	840	85.2	737	82.8
15 years	152	7.9	65	6.6	84	9.4
16 years or older	5	0.3	2	0.2	3	0.3
Missing	12	0.6	1	0.1	4	0.4
Nativity						
U.S. born	1,616	84.1	853	86.5	726	81.6
Foreign born	232	12.1	105	10.6	122	13.7
Missing	74	3.9	28	2.8	42	4.7
U.S. orientation	0.64	0.15	0.67	0.13	0.61	0.15
Hispanic orientation	0.43	0.21	0.45	0.20	0.40	0.21
Family cohesion	3.30	0.85	3.30	0.88	3.30	0.81
Family conflict	2.22	0.75	2.24	0.77	2.20	0.72
Familismo	3.33	0.59	3.39	0.55	3.27	0.63
Respeto	3.72	0.52	3.75	0.49	3.69	0.55
Gender roles	2.19	0.63	1.96	0.54	2.46	0.60
Fatalismo	2.97	0.67	3.01	0.68	2.92	0.67
CES-D	1.77	0.53	1.88	0.58	1.63	0.43
Father's education						
8th grade or less	337	17.5	173	17.5	154	17.3
Some high school	362	18.8	205	20.8	148	16.6
High school graduate	307	16.0	148	15.0	149	16.7
Some college	155	8.1	82	8.3	71	8.0
College degree	85	4.4	44	4.5	40	4.5
Advanced degree	26	1.4	13	1.3	12	1.3
Missing	650	33.8	321	32.6	316	35.5
Mother's education						
8th grade or less	380	19.8	207	21.0	161	18.1
Some high school	359	18.7	221	22.4	135	15.2
High school graduate	332	17.3	159	16.1	164	18.4
Some college	180	9.4	95	9.6	81	9.1
College degree	116	6.0	60	6.1	50	5.6
Advanced degree	31	1.6	17	1.7	14	1.6
Missing	524	27.3	227	23.0	285	32.0

Note: We lost 46 participants in the descriptive data by gender due to missing data on youth's gender

manifest indicators in order to achieve more parsimonious models (Little et al. 2002). Next, we conducted structural equation modeling with latent variables to test hypotheses embedded in Fig. 1. We undertook a two-stage approach to modeling (Anderson and Gerbing 1988). First, we estimated the measurement model for the latent variables to ensure that the psychometric properties of the measures were adequate and loaded on the hypothesized factors. Hereby, we estimated a measurement model for each construct separately, then for each pair of constructs, combining them two by two before estimating the measurement model for all the constructs in one model (Jöreskog 1993). We evaluated overall fit with empirical fit indices. These included the comparative fit index (CFI), the Chi-square test of model fit (X^2), and the root mean square error of approximation (RMSEA) (Hu and Bentler 1998). We did not consider the p-value of the Chi-square test because a large sample size tends to inflate the Chi-square

Table 2 Intercorrelations between all study variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
01 Age	_													
02 Gender	−.05*	_												
03 U.S. orientation	−.06**	.20**	_											
04 Hispanic orientation	−.04	.12**	−.10**	_										
05 Family cohesion	.01	−.03	−.00	.16**	_									
06 Family conflict	.06*	.05	.04	−.08**	−.29**	_								
07 Familismo	−.01	.09**	.14**	.07*	.31**	−.20**	_							
08 Respeto	−.06*	.10**	.07**	.11**	.35**	−.27**	.46**	_						
09 Gender Roles	.01	−.42**	−.19**	−.06*	.09**	−.02	.01	.05	_					
10 Fatalismo	−.04	.06	−.03	.04	−.01	.11**	.16**	.17**	.12**	_				
11 CES-D	−.01	.19**	.07**	.02	−.17**	.24**	−.07*	−.13**	−.09**	.07*	_			
12 Father's education	.04	−.04	−.02	−.04	.01	−.01	−.02	−.02	.02	.03	−.01	_		
13 Mothers education	.02	−.11**	−.02	−.06**	.02	−.04	.02	−.04	.06*	.07*	−.04	.62**	_	
14 Nativity	.05*	−.05*	−.18**	.15**	.05	−.03	.01	.04	.02	−.01	−.00	.04	.04	_

Continuous measures: U.S. Orientation, Hispanic Orientation, Family Cohesion, Family Conflict, Familismo, Respeto, Gender Roles, Fatalismo, and CES-D

Categorical measures: Gender, Father's and Mother's Education, Nativity

* $p < 0.05$, ** $p < 0.01$

value, making it difficult to achieve a non-significant Chi-square statistic (Little et al. 2002).

The measurement model with all nine latent variables produced excellent model fit indices (CFI = .937; RMSEA = .033, 90 % CI [.032, .035]; χ^2 = 2,185.53, df = 704, $p < .001$), indicating that the observed variables were good indicators of the latent variables and that all latent variables represented separate constructs. Next, we estimated the structural model (Fig. 1). The structural model provided a good fit of the data (CFI = .928; RMSEA = .031, 90 % CI [.030, .033]; χ^2 = 2,788.437, df = 969, $p < .001$). As shown in Fig. 2, standardized path coefficients suggested that U.S. orientation was associated with higher levels of *familismo* ($\beta = .19$), *respeto* ($\beta = .09$), family conflict ($\beta = .11$), and depressive symptoms ($\beta = .10$), and it was related with lower levels of traditional gender roles ($\beta = -.27$). Hispanic orientation was linked with higher levels of *familismo* ($\beta = .10$), *respeto* ($\beta = .12$), family cohesion ($\beta = .14$), and depressive symptoms ($\beta = .08$). It also was associated with lower levels of traditional gender roles ($\beta = -.09$). *Familismo* and *respeto* were, in turn, related with lower levels of family conflict ($\beta = -.19$ and $\beta = -.28$, respectively) and higher levels of family cohesion ($\beta = .27$ and $\beta = .25$, respectively) while *fatalismo* was linked with higher levels

of family conflict ($\beta = .24$) and lower levels of family cohesion ($\beta = -.12$). Traditional gender roles were further linked with higher levels of family cohesion ($\beta = .10$) but not family conflict. Family conflict was linked with higher levels of depressive symptoms ($\beta = .27$) and family cohesion with lower levels of depressive symptoms ($\beta = -.09$).

As a last step, we examined gender as a moderator using multi-group structural equation modeling. As a result of missing values in our grouping variable (gender), we dropped 46 cases from the analysis which resulted in a sample of 1,846 students. First, we re-estimated the fit of our model on the overall sample ($n = 1,846$) while constraining all the paths in both the measurement and structural models to equality between boys and girls. As shown in Table 3, the fully constrained model provided a satisfactory fit to the data (see Test 1 of Table 3). Next, we released all equality constraints on the structural model (Test 2 of Table 3), which resulted in a significant Chi-square change ($p < .001$). Lastly, we determined whether the strength of relationships depicted in Fig. 1 significantly differed between girls and boys. Hereby, we systematically removed the gender equality constraint on each individual path, and examined whether allowing paths to differ resulted in significant improvements in model fit. Table 3

Fig. 2 Results of the hypothesized structural model with the overall sample (n = 1,922). *Dashed lines* indicate nonsignificant paths (unless indicated)
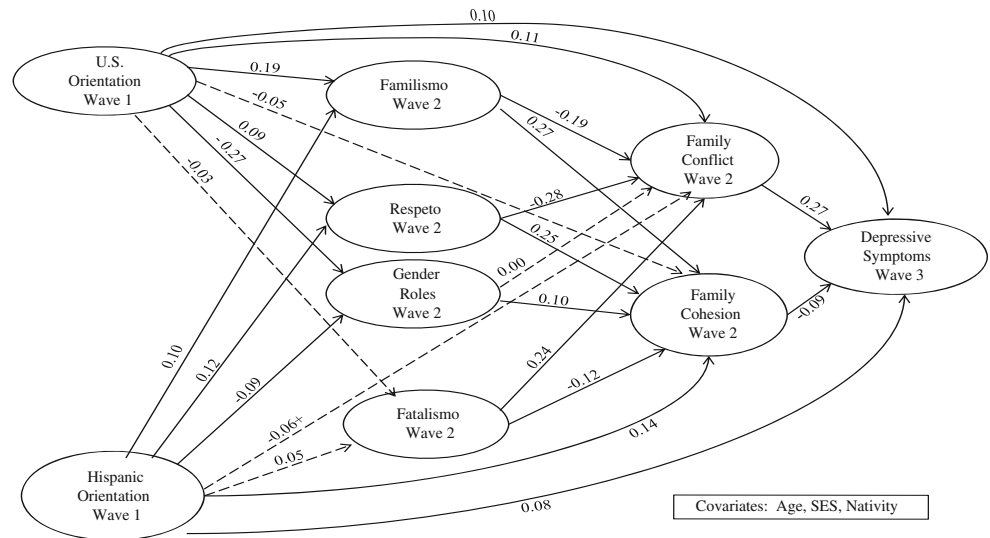
shows the results of this process. Test 1 examined the fully gender-invariant model and Test 3 allowed the path between acculturation and depressive symptoms to vary between girls and boys. This change did not result in a significant improvement of model fit when compared with Test 1 (Test 3 of Table 3). In Test 4, we removed the gender-equality constraint on the path between enculturation and depressive symptoms, and in Test 5 we allowed the path from acculturation to family conflict to vary by gender. None of these changes resulted in a significant improvement of model fit, compared to Test 1. We continued this process until we had allowed each path to differ between boys and girls. In all, we tested 27 different models, and Test 27 had the best model fit (except for Test 2).

As shown in Table 3, compared to Test 1, Tests 8 (*p* = 07), 17 (*p* < .05), 18 (*p* < .05), 21 (*p* < .001), 22 (*p* < .001), 23 (*p* < .05), 25 (*p* < .05) and 27 (*p* < .001) resulted in significant or marginally significant model fit improvements. In test 8, we released the equality constraint on the path from enculturation to family cohesion. Enculturation was associated with higher levels of family cohesion in boys (*β* = .22; *p* < .001) but not in girls. Test 17 allowed the path from *familismo* to family conflict to vary by gender. *Familismo* was negatively associated with family conflict for boys (*β* = −.17; *p* < .05) and girls (*β* = −.22; *p* < .001), but this relationship was stronger for girls. In Test 18, we released the equality constraint on the path from *respeto* to family conflict. *Respeto* was associated with lower family conflict for boys (*β* = −.27; *p* < .001) and girls (*β* = −.33; *p* < .001), but this association was stronger for girls than boys. Test 21 allowed the path from *familismo* to family cohesion to vary by gender. *Familismo* was positively associated with family cohesion for boys (*β* = .23; *p* < .001) and girls (*β* = .31; *p* < .001),

but this association was stronger for girls. In Test 22, we removed the equality constraint on the path from *respeto* to family cohesion. *Respeto* was associated with increased family cohesion for boys (*β* = .24; *p* < .001) and girls (*β* = .31; *p* < .001), but this association was stronger for girls than boys. In test 23, we allowed the path from gender roles to family cohesion to vary across genders. For boys, this association was not significant and, for girls, traditional gender roles were associated with higher levels of family cohesion (*β* = .11; *p* < .05). In Test 25, we allowed the path from family conflict to depressive symptoms to vary across gender. Family conflict was associated with higher levels of depressive symptoms in boys (*β* = .37; *p* < .001) and girls (*β* = .20; *p* < .001), but this relationship was stronger for boys. In the last model (Test 27), we allowed all the paths to differ between boys and girls that had resulted in significant or marginally significant model fit improvement (i.e., Tests 8, 17, 18, 21, 22, 23, and 25). Test 27 was the best fitting model (not including Test 2). The results of the structural form of Test 27 are depicted in Fig. 3, separately for girls and boys. In all, the multi-group analysis revealed that gender moderated some but not all associations depicted in Fig. 1.

Figure 2 shows results of Test 27. After controlling for age, SES, and youth nativity, U.S. orientation was associated positively with *familismo* in boys and girls (*p* < .001), and it was associated negatively with traditional gender roles (*p* < .001) in both groups. Hispanic orientation was associated positively with *familismo* in girls (*p* < .05) but not in boys, and it was associated positively with *respeto* in both groups (*p* < .001). Hispanic orientation was further associated with higher levels of family cohesion in boys (*p* < .001) but not in girls. While *familismo* and *respeto* were associated with less family conflict for boys and girls (*p* < .001), U.S. orientation and *fatalismo* were associated

Table 3 Goodness-of-fit indices for the multigroup model by gender ($n = 1,846$)

Model	X^2	df	RMSEA	CFI	$\Delta\chi^2$	Δdf	Significant ΔX^2
Test 1: fully invariant by gender	4,284.943	2,058	0.034	0.907			
Test 2: gender-invariant constraint released on construct	4,183.417	2,006	0.034	0.909	101.526	52	Yes
Test 3: gender constraint released on acculturation → depressive symptoms	4,284.796	2,057	0.034	0.907	0.147	1	No
Test 4: gender constraint released on enculturation → depressive symptoms	4,283.509	2,057	0.034	0.907	1.434	1	No
Test 5: gender constraint released on acculturation → family conflict	4,284.255	2,057	0.034	0.907	0.688	1	No
Test 6: gender constraint released on enculturation → family conflict	4,284.274	2,057	0.034	0.907	0.669	1	No
Test 7: gender constraint released on acculturation → family cohesion	4,284.579	2,057	0.034	0.907	0.364	1	No
Test 8: gender constraint released on enculturation → family cohesion	4,281.733	2,057	0.034	0.907	3.21	1	$p = 0.073$
Test 9: gender constraint released on acculturation → familismo	4,283.007	2,057	0.034	0.907	1.936	1	No
Test 10: gender constraint released on enculturation → familismo	4,283.564	2,057	0.034	0.907	1.379	1	No
Test 11: gender constraint released on acculturation → respeto	4,284.098	2,057	0.034	0.907	0.845	1	No
Test 12: gender constraint released on enculturation → respeto	4,284.927	2,057	0.034	0.907	0.016	1	No
Test 13: gender constraint released on acculturation → gender roles	4,283.828	2,057	0.034	0.907	1.115	1	No
Test 14: gender constraint released on enculturation → gender roles	4,284.806	2,057	0.034	0.907	0.137	1	No
Test 15: gender constraint released on acculturation → fatalismo	4,282.899	2,057	0.034	0.907	2.044	1	No
Test 16: gender constraint released on enculturation → fatalismo	4,284.856	2,057	0.034	0.907	0.087	1	No
Test 17: gender constraint released on familismo → family conflict	4,279.689	2,057	0.034	0.907	5.254	1	Yes
Test 18: gender constraint released on respeto → family conflict	4,276.840	2,057	0.034	0.907	8.103	1	Yes
Test 19: gender constraint released on gender roles → family conflict	4,282.217	2,057	0.034	0.907	2.726	1	No
Test 20: gender constraint released on fatalismo → family conflict	4,284.183	2,057	0.034	0.907	0.760	1	No
Test 21: gender constraint released on familismo → family cohesion	4,272.508	2,057	0.034	0.907	12.435	1	Yes
Test 22: gender constraint released on respeto → family cohesion	4,270.975	2,057	0.034	0.907	13.968	1	Yes
Test 23: gender constraint released on gender roles → family cohesion	4,279.779	2,057	0.034	0.907	5.164	1	Yes
Test 24: gender constraint released on fatalismo → family cohesion	4,283.437	2,057	0.034	0.907	1.506	1	No
Test 25: gender constraint released on family conflict → depressive symptoms	4,280.861	2,057	0.034	0.907	4.082	1	Yes
Test 26: gender constraint released on family cohesion → depressive symptoms	4,284.534	2,057	0.034	0.907	0.409	1	No
Test 27: gender constraint released on enculturation → family cohesion; familismo → family cohesion; respeto → family cohesion; gender roles → family cohesion; familismo → family conflict; respeto → family conflict.; family conflict → depressive symptoms	4,235.181	2,050	0.034	0.908	49.76	8	Yes

We lost 46 participants in the multi-group analysis due to missing data on youth's gender
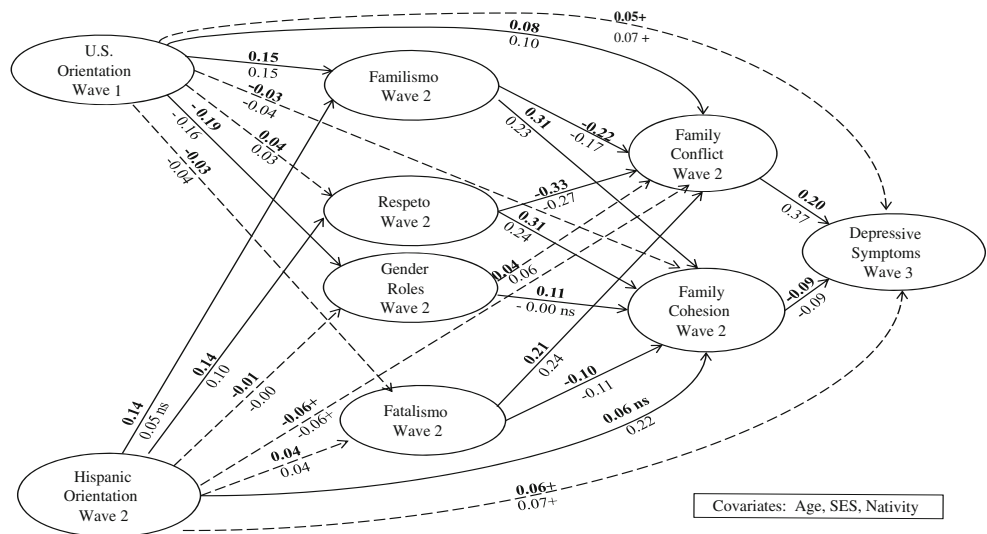
with more family conflict ($p < .05$ and $p < .001$, respectively). Conversely, *familismo* and *respeto* were linked with higher levels of family cohesion in boys and girls ($p < .001$) and traditional gender roles were linked with more family cohesion in girls only ($p < .05$). *Fatalismo* was further linked with lower family cohesion in both groups ($p < .05$). For boys and girls, family conflict was associated with higher levels of depressive symptoms ($p < .001$), while family cohesion was associated with lower levels of depressive symptoms ($p < .05$).

In regards to significant gender effects, Hispanic orientation was associated with higher levels of family cohesion in boys ($p < .001$) but not in girls. Moreover, the

associations of *familismo* and *respeto* with lower levels of family conflict were stronger for girls ($\beta = -.22$ and $\beta = -.31$, respectively) than boys ($\beta = -.17$ and $\beta = -.27$, respectively), and the relationships of *familismo* and *respeto* with higher family cohesion were also stronger for girls ($\beta = .31$ and $\beta = .31$, respectively) than boys ($\beta = .23$ and $\beta = .24$, respectively). Moreover, traditional gender roles were associated with higher levels of family cohesion in girls ($p < .05$) but not in boys. Lastly, the associations of family conflict with depressive symptoms was stronger for boys ($\beta = .37$) than girls ($\beta = .20$).

Taken together, our findings indicate that acculturation and enculturation come with increases in *familismo* and

Fig. 3 Results of the multi-group model ($n = 1,876$). Standardized path coefficients for girls appear in **bold**. Standardized path coefficients for boys appear in regular type. *Dashed lines* indicate nonsignificant paths (unless indicated), and significant coefficients are shown in *boldface*. *Note*: We lost 46 participants in the multi-group analysis due to missing data on youth's gender

respeto and with decreases in traditional gender roles. This seems to be true for girls and boys. *Familismo* and *respeto* were linked with lower family conflict and higher family cohesion in boys and girls. Family conflict was linked with higher levels of depressive symptoms while family cohesion was linked with lower levels of depressive symptoms. Traditional gender roles were linked with more family cohesion but only in girls. These results suggest that loss in gender roles as a result of acculturation and enculturation may increase girls' vulnerability for depressive symptoms by way of reduced family cohesion.

Discussion

The risk for depression in Hispanic youth increases with acculturation to the dominant U.S. culture (Gonzales et al. 2006), and girls' risk appears to be influenced more strongly by acculturation than boys' risk (Lorenzo-Blanco et al. 2011). The process by which acculturation may lead to higher levels of depressive symptoms in Hispanic youth is not well understood but research indicates that acculturation is accompanied with a loss in cultural values (Miranda et al. 2000; Gil et al. 2000). This loss in cultural values may lead to more frequent family conflict and lower family cohesion (Gil and Vazquez 1996; Zayas et al. 2005), thereby increasing youth's risk for depression (Gonzales et al. 2006). In the current study, we integrated theory and research on acculturation, enculturation, Hispanic cultural values, family functioning, and depressive symptoms into a process-oriented model. Based on extant research and theory, we hypothesized acculturation to be associated with lower and enculturation with higher levels of cultural values. We further expected cultural values to be associated with lower family conflict and higher family cohesion, and

we hypothesized family conflict to be linked with higher levels of depressive symptoms and family cohesion with lower levels of depressive symptoms. Understanding the process by which acculturation may lead to symptoms of depression can provide knowledge on where to best intervene to prevent depression in acculturating Hispanic youth. We also assessed how this process differed for boys and girls to help us understand why Hispanic girls' mental health is more affected by acculturation than boys' mental health (e.g., Lorenzo-Blanco et al. 2011). This knowledge can further guide us on where to best intervene to treat or prevent depression in Hispanic girls.

Acculturation and enculturation predicted youth's endorsement of Hispanic cultural values. However, the direction and strength of these associations varied for the different cultural values, indicating the need not to generalize findings from one cultural value (e.g., *familismo*) to other cultural values (e.g., *fatalismo*). As expected, acculturation was associated with lower endorsement of traditional gender roles (Gil and Vazquez 1996). Traditional gender roles were, in turn, linked with higher levels of family cohesion for girls (but not boys). These findings indicate that with acculturation and enculturation, girls experience a loss of family cohesion as youth discard traditional gender roles. This loss of family cohesion may elevate girls' risk for depression.

Surprisingly, acculturation was associated with *higher* not *lower familismo* and *respeto* in the overall sample. This was surprising because studies have shown negative associations between acculturation and *familismo* (Miranda et al. 2000). It is possible that the association of acculturation with *familismo* and *respeto* depend on demographic and socio-cultural characteristics of the study population. The majority of youth in the current study had been born in the U.S., and it is possible that parenting strategies of

parents with U.S. born children differ from the parenting of parents with foreign born children. Hispanic parents with U.S. born children may increasingly emphasize *familismo* and *respeto* as their children become acculturated. Parents may fear that their U.S. born children never learn about or completely disengage from familistic values. Familistic values, however, may be valued by parents because they promote family support and cohesion. Parents may view family support as vital in the U.S., where Hispanic youth and adults experience discrimination outside the home (Lorenzo-Blanco et al. 2011; Pérez et al. 2008). Experiences of everyday discrimination may hinder Hispanic families to find social support outside their families. Parents may actively instill familistic values to their children to ensure that their children have access to social support. Parents' fear of raising children that lack family support may lead them to teach children about familistic values to greater degrees than they would normally do. Thus, youth may have had more opportunities to learn about *familismo* and *respeto* as they became acculturated.

Ogbu (1994) suggested that cultural differences between ethnic minorities and the dominant U.S. culture arise for two reasons. Primary cultural differences exist because members of two populations had their own ways of behaving, thinking, and feeling before the two groups came in contact with each other. Secondary cultural differences arise due to ethnic minorities' response to experiences in the U.S. The cultural values of *familismo* and *respeto* may indeed be *primary cultural differences* between U.S. Hispanics and the dominant U.S. group, but *increased emphasis on familismo* and *respeto* by parents may constitute a *secondary cultural difference*. Parents may respond to discrimination and lack of non-family support by emphasizing *familismo* and *respeto to higher* degrees than they would normally do. These secondary cultural differences may explain why acculturation was associated with more rather than less *familismo* and *respeto*. Moreover, it is possible that youths' reports of their own familistic values are influenced by having non-Hispanic peers at school with less familistic values. Hispanic youth may not think of themselves as high on familism or *respeto* when surrounded by other Hispanic youth or families who are high on *familismo* and *respeto*. But these perceptions may change when comparing themselves with youth and families who are low on *familismo* and *respeto*. As a result of this comparison process, Hispanic youth's reports of *familismo* and *respeto* may have become higher with acculturation because youth may have had more contact with non-Hispanic youth as they become acculturated.

As expected, enculturation was associated with increased reports of *familismo* and *respeto* which, in turn, were linked with more positive family lives. While family cohesion was linked with lower levels of depressive

symptoms, family conflict was linked with higher levels of depressive symptoms. Our findings show that participation in Hispanic culture can protect against depression by way of positive family lives. Participation in Hispanic culture may allow children to learn about shared family values that promote family closeness.

Surprisingly, *fatalismo* was associated with higher levels of family conflict and lower levels of family cohesion. It is possible that youth with fatalistic beliefs experience adolescent angst, disillusionment, hopelessness, and lack of future aspirations. Youth who lack motivation and goals for the future may experience more conflict and less cohesion when parents try to encourage them to make responsible decisions for the future. Moreover, parents of youth who participated in Project Red may have come to the US to provide their children with more opportunities, and it might be especially distressing for them to see their children not striving for those opportunities. Parents may cope with their distress by trying to enforce available opportunities on youth. These dynamics may result in more problematic family lives.

Acculturation and enculturation were indirectly linked with depressive symptoms by way of family functioning. Surprisingly, family conflict more strongly predicted depressive symptoms in boys. These findings open interesting questions about whether and why boys are more influenced by family conflict than girls. It is possible that Hispanic boys feel responsible for family conflict because Hispanic male gender norms emphasize responsibility for protecting the family (Torres 1998). As a result, they may feel guilty when family harmony is at risk.

Limitations and Conclusion

Several study limitations should be noted. All data were obtained via youth self-report, which prevented us from examining parents' and teachers' evaluations of youths' psychological well-being, adherence to Hispanic cultural values, and family functioning. Thus, future studies should collect data from various informants to avoid self-report bias. Moreover, adolescents were recruited from schools located in predominantly Hispanic neighborhoods. Acculturation-related experiences such as adherence to cultural values, family functioning, and depressive symptoms depend on the larger socio-cultural context of acculturating Hispanic youth. Our results may not generalize to Hispanic youth who reside in more heterogeneous neighborhoods. Moreover, youth in the present study were predominantly of Mexican–American background, and our research findings may not generalize to youth from other Hispanic subgroups (e.g., Puerto Rican youth, Cuban youth, Guatemalan youth, etc.). Researchers caution towards lumping

Hispanic subgroups into one large group as Hispanic youth, adults, and families can differ in cultural domains (Umana-Taylor and Fine 2001), such as endorsement of family cohesion and *familismo* (Rivera et al. 2008), exposure to ethnic discrimination (Pérez et al. 2008), and depression risk (e.g., Crockett et al. 2005). Therefore, it is important to extend this study to adolescents of various Hispanic subgroups as this will allow for the examination of differences and similarities among the various U.S. Hispanic groups.

Other factors in addition to acculturation, culture, and family predict depression in youth. For example, stressful peer relationships (Rudolph et al. 2000) and maladaptive thought patterns (Beck 1983) have been linked with youth depression. Risk for depression also has been linked with genetic and biological factors that can be activated by stressful life events (Engel 1980). Moreover, among Hispanic youth and adults, ethnic discrimination has been linked with higher levels of depressive symptoms (Cook et al. 2009; Lorenzo-Blanco et al. 2011). Thus, future research on depression in Hispanic youth should extend our research on acculturation, culture, and family to also include peer-related, cognitive, genetic, biological factors, and other stressful experiences such as discrimination. This research would provide greater insights into the etiology of depressive symptoms in Hispanic youth. Lastly, the present study did not assess for clinical depression and it is not clear whether our research findings generalize to clinical depression. Thus, future studies should use clinical assessments of depression.

Despite these limitations, this study contributes to research on Hispanic youths' acculturation, enculturation, and depression. We examined the process by which acculturation may lead to symptoms of depression by way of culture and family. We also have investigated how this process differs for boys and girls. Thereby, we have identified possible areas for future prevention and intervention research. The Hispanic cultural values of *familismo* and *respeto* seem to indeed promote family cohesion and discourage family conflict in boys and girls. Family cohesion was linked with lower symptoms of depression and family conflict with higher levels of family conflict. These findings suggest that interventions and prevention strategies at the family level may aid at reducing the risk for depression in Hispanic boys and girls.

The current study further illustrates that girls may especially benefit from interventions that foster positive family lives by way of promoting Hispanic cultural values. The associations of *familismo*, *respeto*, and traditional gender roles with family functioning were stronger for girls than boys. This suggests that girls' mental health especially may benefit from family-focused interventions and prevention strategies.

Hispanic youth are at risk for depression, and they belong to the largest and fastest growing immigrant group in the U.S. Depression often develops before age 18, and early onset of depression can lead to serious consequences later in life (Weersing and Brent 2006). Thus, to the extent that acculturation leads to depression in Hispanic youth, it is important that we understand why. This information can help in the development of targeted prevention, intervention, assessment, and policy-making strategies aimed at reducing depression in Hispanic boys and girls.

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