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GLOBAL SELF-WORTH AND PERCEPTIONS OF COMPETENCE IN LATINO YOUTH:  
THE ROLE OF ACCULTURATION AND ACCULTURATION RISK FACTORS

by

Theresa L. Kapke, B.A.

A Thesis submitted to the Faculty of the Graduate School, Marquette University, in Partial Fulfillment of  
the Requirements for the Degree of the Master of Science

Milwaukee, Wisconsin

May 2015

ABSTRACT  
GLOBAL SELF-WORTH AND PERCEPTIONS OF COMPETENCE IN LATINO YOUTH:  
THE ROLE OF ACCULTURATION AND ACCULTURATION RISK FACTORS

Theresa L. Kapke, B.A.

Marquette University, 2015

To develop a better understanding of mental health disparities for Latino adolescents, the goal of the current study was to examine the sociocultural influences on Latino adolescents' self-esteem. Specifically, the current study investigated the effects of acculturation and acculturation risk factors on adolescents' global self-worth and self-perceptions of competence. Eighty-three Latino adolescents completed a series of questionnaires regarding behavioral and cognitive aspects of acculturation, acculturation risk factors (i.e., acculturation stress, acculturation conflict, and perceived ethnic discrimination), and perceptions of global self-worth and competence across various domains (i.e., behavioral conduct, physical appearance, and social acceptance). Results indicated that Latino orientation and bicultural orientation on the behavioral measure of acculturation were positively associated with perceived competence regarding behavioral conduct. Additionally, acculturation stress was negatively associated with global self-worth and perceived competence regarding physical appearance and social acceptance. Similarly, acculturation conflict and perceived ethnic discrimination were negatively associated with global self-worth and perceived competence regarding behavioral conduct, physical appearance, and social acceptance. Exploratory analyses also revealed that specific cultural orientations (i.e., Latino orientation, orientation to mainstream U.S. culture, and bicultural orientation) on the behavioral and cognitive measures of acculturation were significant predictors of global self-worth and perceived competence regarding behavioral conduct. Additionally, the acculturation risk factors (i.e., acculturation stress, acculturation conflict, and perceived ethnic discrimination) were significant predictors of global self-worth and perceptions of competence across various domains (i.e., behavioral conduct, physical appearance, and social acceptance). However, moderation analyses indicated that the effects of acculturation conflict and perceived ethnic discrimination on Latino adolescents' global self-worth largely depended on their cultural orientation on the behavioral and cognitive measures of acculturation. For interventions aimed at improving global self-worth and perceptions of competence in Latino adolescents, these results highlight the importance of assessing acculturation and acculturation risk factors. Also, additional outreach is needed for Latino adolescents who may be particularly high risk for experiencing the detrimental effects of acculturation conflict and perceived ethnic discrimination on global self-worth.

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## Introduction

The Latino population in the U.S. represents the largest and fastest growing ethnic minority group, comprising nearly 16% of the total population (U.S. Census Bureau, 2011). Recent population projections estimate that approximately 40% of the children in our country will be Latino by 2060 (U.S. Census Bureau, 2012a). Given the fact that many members of the Latino population in the U.S. are immigrants and that over a third of this immigrant population entered the country between 2000 and 2009, a large percentage of Latinos are relatively new to the U.S. (U.S. Census Bureau, 2012b). Additionally, compared to other ethnic groups, the Latino population is young; approximately 40% of the Hispanic population is under the age of 21 compared to approximately 26% of the non-Hispanic population (U.S. Census Bureau, 2012b). Thus, a growing number of youth and their families will experience the difficulties associated with adapting to life as part of an ethnic minority group and operating within a host culture that may be vastly different than their culture of origin (Gonzales, Knight, Morgan-Lopez, Saenz, & Sirolli, 2002). Although adolescents, in general, are at greater risk of developing psychopathology that results in significant impairment across multiple domains of functioning (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003), recent studies suggest that Latino adolescents may be at particularly high risk for developing mental health problems and risky behavior (U.S. Department of Health and Human Services, 2001; Kann et al., 2014; Merikangas et al., 2010).

Research indicates that the difficulties associated with adapting to a host culture may place Latino youth at greater risk for developing depression, substance abuse, behavioral problems, low self-esteem and interpersonal problems (Smokowski, Buchanan, & Bacallao, 2009; Smokowski & Bacallo, 2007; Kam & Cleveland, 2011; Romero, Martinez, & Carvajal, 2007). However, relatively little is known about the influence of acculturation and related factors on Latino youth (Flores et al., 2002). Most of the research in this area has focused on adult populations and cannot be used to explain adolescent outcomes because of their unique developmental processes and social contexts (Smokowski & Bacallao, 2007; Gonzales et al., 2002). Despite their increased risk of developing negative mental health problems and behaviors, Latino youth and their families are less likely to receive necessary mental health services and are more likely to drop out of treatment prematurely (Flores & The Committee on Pediatric Research, 2010; McCabe, 2002). In order to address mental health disparities for Latino adolescents, it is necessary to establish a better

understanding of the cultural influences on Latino adolescents' mental health outcomes. Specifically, research needs to examine the associations between acculturation, acculturation risk factors, and self-esteem, as the latter has been shown to be a protective factor related to healthy adjustment and resilience (Dumont & Provost, 1999), and a risk factor for the development of psychopathology in youth (Harter, 1993; Muris, Meesters, & Fijen, 2003; Bos, Huijding, Muris, Vogel, & Biesheuvel, 2010).

### **Acculturation Theory**

Consistent with literature in this area, the current study conceptualized *acculturation* as the cultural changes that occur when groups of people from different cultures interact with each other (Redfield, Linton, & Herskovits, 1936). While the terms *acculturation* and/or *assimilation* typically refer to one's orientation to the mainstream host culture, the term *enculturation* can be used to describe one's orientation to the ethnic culture of origin (Schwartz, Unger, Zamboanga, & Szapocznik, 2010; Weinreich, 2009). The current study's conceptualization of acculturation emphasized a number of important aspects of modern acculturation theory, including the multidimensional nature of acculturation. Recent theoretical developments promote the idea that acculturation processes occur at the macro- and micro-level, are multidimensional, and include multicultural processes that develop continuously over time (Berry, 2003; Marín, 1992; Berry, 2006). Although acculturation is thought to occur at both group and individual levels (Berry, 2003), the current study focused on the individual-level acculturation of Latino adolescents. Better understanding the way in which acculturation affects adolescents' self-esteem on an individual level will improve our understanding of their associated mental health outcomes.

According to modern acculturation theory, individual acculturation processes for immigrants typically occur in three stages and include both behavioral and cognitive changes (Marín, 1992). The first changes that are likely to occur are superficial behavioral changes, such as food or media preferences, and the next stage includes more significant behavioral changes, such as language, social interactions, and preference for the ethnicity of friends. The most significant level of change occurs in the final stage of acculturation and relates to one's values, belief system, and social norms (Marín, 1992; Marín & Gamba, 2003). Schwartz and colleagues (2010) also proposed a theory of acculturation that accounts for various aspects of acculturation, including cultural practices, values, and identifications for both the host culture

and culture of origin. Given the well-documented behavioral and cognitive components of acculturation theory, the proposed study utilized measures that assessed both behavioral and cognitive acculturation.

In addition to assessing the behavioral and cognitive components of acculturation, modern acculturation theory is moving away from a linear understanding of acculturation to more of a multidimensional approach. In fact, current theory suggests that two or more cultures should be assessed independently from each other across numerous dimensions (Berry, 2003; Berry, 2006). The multidimensional model, also referred to as the bicultural model, takes both the host culture and culture of origin into account in assessing one's cultural experiences and identity (Berry, 1997; Coatsworth, Maldonado-Molina, Pantin, & Szapocznik, 2005; Gonzales et al., 2002). According to the bicultural model, it is possible for one to retain aspects of his/her culture of origin while adopting aspects the mainstream, host culture. For example, a Spanish-speaking individual may choose to learn English while maintaining his/her Spanish-speaking abilities. This bicultural, multidimensional approach may be especially important in understanding Latino adolescents' experiences in the context of various social systems (i.e., family, school, and community; Gonzales et al., 2002). Thus, the current study utilized multidimensional measures of acculturation to assess aspects of both ethnic culture of origin (i.e., Latino culture) and mainstream host culture (i.e., Anglo culture).

### **Acculturation Risk Factors**

While not necessarily considered a dimension of acculturation, *acculturation risk factors* are related phenomena that may be experienced by an individual in acculturation processes. According to a recent review of the literature on acculturation and the mental health of Latino youth, acculturation risk factors (i.e., acculturation stress, acculturation conflict, and perceived ethnic discrimination) are important to consider because they reveal some of the challenges and difficulties associated with the acculturation process (Gonzales et al., 2002). However, similar to that of acculturation, there have been inconsistencies with the way these variables have been measured. For example, acculturation stress has referred to language barriers, pressure of adhering to different lifestyles, conflicts with people from different ethnic groups, family conflict, perceived discrimination, and negative stereotypes (Rodriguez, Myers, Bingham Mira, Flores, & Garcia-Hernandez, 2002; Gil, Vega, & Dimas, 1994). In light of these inconsistencies, the

current study attempted to assess acculturation stress, acculturation conflict, and perceived ethnic discrimination as distinct constructs.

The current study conceptualized acculturation stress as the stress due to everyday life events that results from the pressure to adopt or maintain mainstream U.S. culture and Latino culture for youth in multicultural environments (Romero et al., 2007). Acculturation conflict was defined as the intergenerational conflict that may occur as Latino youth and their families experience differential, and potentially conflicting, levels of acculturation (Smokowski & Bacallao, 2006). Research has demonstrated that Latino youth are likely to assimilate more quickly than their parents and grandparents, leading to an “acculturation gap,” which may cause tension in the home setting, disrupt family relations, and lead to behavior problems among youth (Szapocznik, Kurtines, & Fernandez, 1980). Additionally, perceived ethnic discrimination was defined as any kind of behavior directed towards individuals or groups of people that reflects unequal treatment (Stroebe & Insko, 1989). Given the substantial proportion of Latinos who have experienced discrimination and believe that it prevents them from succeeding in the U.S., perceived ethnic discrimination is an important risk factor to consider (Kaiser Family Foundation & Pew Hispanic Center, 2002).

### **Self-Esteem**

Self-esteem was chosen as an outcome because it is an important component of adolescent development and is associated with mental health outcomes in youth. In particular, research has shown that self-esteem is positively related to psychological well-being (Harter, 1993; Kernis, Lakey, & Heppner, 2008), and low levels of self-esteem have been linked to disturbances in social and academic functioning, depression, anxiety, eating problems, and disruptive behavior in youth (Harter, 1993; Muris et al., 2003; Stice, 2002; Bos et al., 2010). Additionally, self-esteem has been shown to partially mediate the relation between perceived ethnic discrimination and depressive symptoms in Latino adolescents (Umaña-Taylor & Updegraff, 2007). Researchers have argued that self-esteem should be conceptualized as a multidimensional construct, including assessments of global self-worth and self-efficacy or perceptions of competence (Branden, 1969; Gecas, 1982; Mruk, 2013; Jacobs, Bleeker, & Constantino, 2003). Additionally, the growing body of literature on self-constructs demonstrates that researchers are transitioning from using global measures of self-esteem to more domain-specific ways of evaluating the

self (Wichstrøm, 1995; Jacobs et al., 2003). In light of this, research by Harter (1993) suggests that assessing domain-specific levels of competence and global self-worth provides the most comprehensive assessment of self-esteem in youth. Thus, the current study utilized the Self Perception Profile for Adolescents (SPPA; Harter, 1988) to examine self-esteem.

### **Acculturation and Self-Esteem in Latino Youth**

It is noteworthy that much of the research on the impact of acculturation on Latino adolescents presents conflicting findings. These mixed findings may be attributed to the fact that many studies have lacked consistent ways of measuring acculturation processes. Although researchers agree on the multidimensional nature of acculturation, many studies have relied on proxy measures of language ability or generational status to measure acculturation (Gonzales et al., 2002; Koneru, Weisman de Mamani, Flynn, & Betancourt, 2007). Although these proxy measures may assess some important components of individuals' behavioral or cognitive acculturation, they do not measure acculturation sufficiently (Cabassa, 2003).

There are mixed findings examining the relation between acculturation and self-esteem in Latino adolescents. For example, one study produced no association between acculturation and self-esteem for Mexican American schoolchildren (Franco, 1983), whereas, another study found that there was a positive association between the two for Nicaraguan, but not Cuban adolescents (Gil & Vega, 1996). Additionally, research has found that more acculturated Latino youth have greater levels of self-esteem than less acculturated Latino youth (Dinh, Roosa, Tein, & Lopez, 2002), despite being at risk for developing depression and substance use problems (Gonzales, Deardorff, Formoso, Barr, & Barrera, 2006). In addition to assessing acculturation, researchers have examined cultural identity among Latino youth, which depends on orientation to both Latino and Anglo culture (Phinney, Cantu, & Kurtz, 1997). Although identification with one's ethnic culture has been linked to higher levels of self-esteem in adolescents (Martinez & Dukes, 1997; Phinney et al., 1997; Umaña-Taylor, 2004), research also has found that adolescents with a bicultural orientation reported higher levels of self-esteem than other adolescents (Bautista de Domanico, Cramford, & Wolfe, 1994). Thus, individuals who solely identify with their ethnic culture of origin or mainstream host culture may report lower levels of self-esteem in comparison to those who maintain a bicultural orientation.

In fact, a growing body of literature suggests that bicultural orientation predicts positive outcomes in youth. Recent studies have demonstrated that biculturalism has been associated with various positive outcomes in Latino youth, including greater competency in various social contexts (Oppedal, 2006), fewer internalizing problems and greater self-esteem (Smokowski & Bacallao, 2007), lower acculturation conflict (Gil et al., 1994), and better adaptation (Coatsworth et al., 2005). Another study examined orientation to Hispanic culture, American culture, and both cultures (i.e., biculturalism) in relation to self-worth. Results suggested that biculturalism predicted higher self-worth in Latino adolescents (Birman, 1998). Given previous literature, it was hypothesized that bicultural orientation (i.e., identification with Latino culture and Anglo culture) on both behavioral and cognitive measures of acculturation would be positively related to global self-worth by adolescents.

Given that the proposed study aims to measure perceptions of competence or adequacy across various domains (i.e., behavioral conduct, social acceptance, and physical appearance), it is important to address the way in which acculturation may be differentially associated with each of these dimensions. Regarding behavioral conduct, a number of studies have examined the link between acculturation and problematic behavior and have found strong associations, suggesting that higher levels of acculturation (i.e., greater orientation to Anglo culture) be may associated with more delinquent behavior in youth, especially in the context of low parental involvement (Dinh et al., 2002). Generational status alone was found to predict delinquent behavior in teens (Buriel, Calzada, & Vasquez, 1982), as well as generational status and language use (Samaniego & Gonzales, 1999). Another study determined that more acculturated Latino adolescents were more likely to engage in delinquent behavior than recent immigrant Latino youth (Fridrich & Flannery, 1995). Other studies have found that more acculturated Latino youth reported higher levels of aggressive behavior than less acculturated youth (Sullivan et al., 2007) and higher levels of problem behavior than bicultural youth (Coatsworth et al., 2005) confirming evidence from previous studies. Although several studies have examined acculturation and behavioral outcomes, few studies have examined the relation between acculturation and perceptions of behavioral conduct. Given current literature, it was hypothesized that orientation to Latino culture on both behavioral and cognitive measures of acculturation would be positively related to perceived competence regarding behavioral conduct,

whereas orientation to Anglo culture would be negatively related to perceived competence regarding behavioral conduct.

Several studies also have examined body image in relation to acculturation processes and cultural identity. Researchers have concluded that greater orientation to mainstream U.S. culture is related to poorer body image in teens, but additional research is needed to understand why this occurs. Consistent with existing literature on body image and body satisfaction, adhering to socially sanctioned standards of appearance may be a major risk factor for Latino youth. One study found that Latino adolescents who were overweight or at risk for becoming overweight and upheld mainstream cultural beliefs about standards of appearance reported greater body dissatisfaction (Ayala, Mickens, Galindo, & Elder, 2007). Although the samples did not focus strictly on adolescents, other studies have found that more acculturated Latina women were more likely to experience eating disorder symptoms than less acculturated Latina women (Cachelin, Veisel, Barzegarnazari, & Striegel-Moore, 2000; Chamorro & Flores-Ortiz, 2000). In contrast, a recent study found that less acculturated Latino youth reported poorer body image than more acculturated Latino youth and non-Latino youth (Nieri, Kulis, Keith, & Hurdle, 2005), and some studies have not found any association between acculturation and eating disorder symptoms or body dissatisfaction (Joiner & Kashubeck, 1996). Although there are some conflicting findings, it was hypothesized that orientation to Latino culture on both behavioral and cognitive measures of acculturation would be positively related to perceived competence regarding physical appearance, whereas orientation to mainstream Anglo culture would be negatively related to perceived competence regarding physical appearance.

Research examining the link between acculturation and social acceptance is even more limited and also has resulted in conflicting findings. For the current study, social acceptance was conceptualized as the extent to which an adolescent feels accepted by others, is popular, has friends, and perceives himself/herself to be likeable (Harter, 1988). The few studies that have been conducted on this subject have concluded that less acculturated youth (i.e., greater orientation to Latino culture) reported being accepted more readily by Latino peers, whereas more acculturated youth (i.e., greater orientation to mainstream U.S. culture) reported being accepted more readily by non-Latino peers (Birman, 1998). Additionally, a recent study found that bicultural youth reported significantly higher levels of peer competence than other youth (Coatsworth et al., 2005). Thus, it was hypothesized that bicultural orientation (i.e., identifying with Latino

culture and mainstream Anglo culture) on both behavioral and cognitive measures of acculturation would be positively related to perceived competence regarding social acceptance.

### **Acculturation Risk Factors and Self-Esteem in Latino Youth**

Given the significant personal and familial challenges associated with the acculturation process, various stressors associated with the acculturation process have been associated with internalizing problems and low self-esteem in Latino adolescents (Smokowski & Bacallao, 2007; Smokowski et al., 2009). Some researchers have suggested that the current political climate surrounding immigration in the U.S. and the socioeconomic hardship that many Latino families experience may lead to decreased self-esteem and increased rates of internalizing problems in Latino youth (Smokowski et al., 2009). A recent study found that perceived ethnic discrimination predicted decreased self-esteem in Latino teens, although this relationship was attenuated by ethnic identity such that Latino youth with high levels of ethnic affirmation reported high levels of self-esteem (Romero & Roberts, 2003). Additionally, greater levels of language conflict, acculturation conflict, and perceived ethnic discrimination have been associated with higher levels of self-derogation (Vega, Gil, Warheit, Zimmerman, & Apospori, 1993), as well as lower levels of self-esteem and increased levels of depression in Latino youth (Gil & Vega, 1996; Smokowski & Bacallao, 2007; Szalacha et al., 2003; Greene, Way, & Pahl, 2006). That said, there is some evidence to suggest that greater ethnic affirmation (i.e., feelings of ethnic pride and belonging) may moderate the relationship between perceived discrimination and self-esteem in ethnic minority adolescents (Greene et al., 2006).

In addition to self-esteem and mental health outcomes, researchers have examined the impact of acculturation risk factors on other domains of functioning. Research has shown that higher levels of language conflict, acculturation conflict, and perceived discrimination were associated with increased problematic behavior in Latino youth (Vega et al., 1993; Vega, Khoury, Zimmerman, Gil & Warheit, 1995, Samaniego & Gonzales, 1999), suggesting that increased acculturation risk factors may lead to lower levels of perceived competence regarding one's behavioral conduct. Additionally, although these studies did not examine adolescents specifically, higher levels of acculturation stress and discrimination have been associated with greater body dissatisfaction and eating disorder symptoms among Latino adults (Warren & Rios, 2013; Kroon Van Diest, Tartakovsky, Stachon, Pettit, & Perez, 2014; Gordon, Castro, Sitnikov, & Holm-Denoma, 2010). In contrast, the link between acculturation risk factors and social acceptance among



Latino youth has yet to be examined. Based on previous research, it was hypothesized that acculturation risk factors (i.e., acculturation stress, acculturation conflict, and perceived ethnic discrimination) would be negatively related to global self-worth and perceived competence regarding behavioral conduct, physical appearance, and social acceptance.

## **Method**

### **Participants and Procedure**

Participants for the current study included 83 adolescents who were recruited in an urban setting as part of a larger study examining factors related to the development of psychopathology in Latino youth and parents. Inclusion criteria were self-identification as Latino and being between the ages of 11 and 17 years. Most of the adolescents in this sample were born in the U.S. (65.1%) and were bilingual (79.5%); the mean age was 12.12 ( $SD = 1.0$ ). Forty-seven percent of the adolescents were male; 53.0% were female. See Table 1 for more demographic information. Given that approximately 64% of the Hispanic population in the U.S. is of Mexican descent (U.S. Census Data, 2012), the sample demographics are fairly consistent with the Latino population in the U.S.

In accordance with multicultural guidelines on encouraging participation of Latino families in research (e.g., Loue & Sajatovic, 2008; NIH, 2002; Yancey, Ortega, & Kumanyika, 2006), partnerships were established with local schools serving predominantly Latino families. Recruitment primarily occurred in-person with families during various school-sponsored events (i.e., orientation, parent-teacher conferences, parent meetings) but also took place through school announcements, mailings, and word-of-mouth referral (as recommended by previous studies recruiting Latino families, such as Haack, Gerdes, Schneider, & Hurtado, 2011; Loue & Sajatovic, 2008; Yancey et al., 2006). Letters describing the study and procedures were distributed to families, and data collection was scheduled at the local schools for interested families. The study took approximately one hour to complete. Following consent procedures, teens completed a packet of pencil and paper questionnaires. Questionnaires could be completed in English or Spanish, and a bilingual research assistant was available to offer clarification and help as needed. All adolescents received \$5 gift cards for their participation and a list of community mental health resources at the end of the study.

Table 1  
*Adolescent Demographics*

Age, <i>M (SD)</i>	12.1	(1.0)
Gender, <i>n (%)</i>		
Female	44	(53.0)
Male	39	(47.0)
Grade, <i>n (%)</i>		
5 <sup>th</sup>	11	13.3
6 <sup>th</sup>	26	31.3
7 <sup>th</sup>	22	26.5
8 <sup>th</sup>	21	25.3
9 <sup>th</sup> or higher	3	3.6
Country of origin, <i>n (%)</i> <sup>+</sup>		
Mexico	14	(16.9)
Puerto Rico	4	(4.8)
U.S.	54	(65.1)
Other	0	(0.0)
Language, <i>n (%)</i>		
Bilingual	66	(79.5)
Mostly English, some Spanish	10	(12.0)
Only English	7	(8.4)

*Note.* *N* = 83. <sup>+</sup> Indicates missing data for some participants.

## Measures

**Acculturation Rating Scale for Mexican Americans-II (ARSMA-II)** (ARSMA-II; Cuéllar et al., 1995). The ARSMA-II is a 30-item self-report measure that is available in both English and Spanish and was used to assess adolescents' behavioral acculturation by measuring Mexican orientation (Mexican Orientation Scale [MOS], 17 items) and Anglo orientation (Anglo Orientation Subscale [AOS], 13 items). Using a 5-point Likert scale ranging from 1 (not at all) to 5 (extremely often or almost always), the measure consists of items that examine language use and preference, ethnic identification and classification, cultural heritage, and ethnic behavior. Higher scores on the MOS indicate greater orientation to Latino culture, and higher scores on the AOS indicate greater orientation to Anglo culture. In an effort to make the measure applicable to different ethnic groups, researchers modified the ARSMA-II for the current study by substituting "Latino" for "Mexican" or "Mexican American." Other studies have incorporated the same modification

and demonstrated that the MOS and AOS scales maintain good reliability (e.g., Cronbach's alphas = .84 and .93, respectively; Steidel & Contreras, 2003). In the normative sample, reliability analyses of the ARSMA-II found Cronbach's alphas of .96 and .94 for the MOS and AOS scales and good split-half reliability (.84 and .77, respectively). Additionally, concurrent validity was assessed with the original measure to obtain a correlation coefficient of .89 (Cuéllar et al., 1995). In the current study, the measure displayed good reliability for the overall measure (Cronbach's alpha = .82) and MOS (Cronbach's alpha = .86), as well as acceptable reliability for the AOS with a Cronbach's alpha of .61.

**Mexican American Cultural Values Scale for Adolescents and Adults** (MACVS; Knight et al., 2010). The MACVS is a 50-item self-report measure that was used to assess adolescents' cognitive acculturation status. The MACVS examines several values related to traditional Latino culture and mainstream Anglo culture. Using a 5-point Likert scale ranging from 1 (not at all) to 5 (extremely), the MACVS scores yield overall Mexican American values and Mainstream values scales. For the purpose of this study, the Mexican American values scale was referred to as MAV, and the Mainstream values scale was referred to as AV. Higher scores on MAV indicate greater affiliation to traditional Latino values, and higher scores on the AV indicate greater affiliation with mainstream Anglo values. Knight and colleagues (2010) have reported good internal consistency for both the overall MAV and AV subscales for use with adolescents (.89 and .77, respectively). Adequate construct validity has been reported regarding several similar constructs, including ethnic pride and ethnic socialization (Knight et al., 2010). In the current study, the measure displayed good reliability for the overall measure (Cronbach's alpha = .92), as well as the MAV (Cronbach's alpha = .94) and AV (Cronbach's alpha = .83) subscales.

**Biculturalism.** For the current study, biculturalism scores represented total cultural engagement and were computed by summing the values of the Latino-oriented and Anglo-oriented questions from each acculturation scale and dividing by the number of items answered. Thus, behavioral biculturalism and cognitive biculturalism scores were produced from the ARSMA-II and MACVS, both of which maintained the original 5-point Likert scales. Higher values indicate greater bicultural orientation. This strategy has been used in other studies examining biculturalism in order to preserve the same 5-point Likert scale and has demonstrated good internal consistency reliability (e.g., Cronbach's alpha = .78; Smokowski &

Bacallao, 2007). The internal consistencies of behavioral and cognitive biculturalism for the current study were good (Cronbach's alpha values for behavioral and cognitive biculturalism = .82 and .92, respectively).

**Acculturation Risk Factors.** Several items measuring acculturation stress, acculturation conflict, and perceived ethnic discrimination were included to assess acculturation risk factors for Latino youth (Smokowski & Bacallao, 2006; Kulis, Marsiglia, & Nieri, 2009). The 7-item scale that was administered to measure acculturation stress (e.g., language and peer conflict) asks respondents to indicate whether a particular acculturation-related situation is a "big problem," a "small problem," or "not a problem" for them. Higher scores indicate greater acculturation stress. This scale has demonstrated acceptable internal consistency in past studies (.69; Kulis et al., 2009), as well as the current study (Cronbach's alpha = .65). The 4-item scale that was used to measure acculturation conflict (i.e., family conflict related to generational acculturation differences) has been used in other studies examining acculturation conflict (e.g., Smokowski & Bacallao, 2006; Vega et al., 1995). It uses a 5-point Likert scale ranging from 1 (not at all) to 5 (frequently) and has demonstrated adequate internal reliability (.76; Smokowski & Bacallao, 2006). Higher scores indicate higher acculturation conflict. This scale displayed good reliability in the current study with a Cronbach's alpha of .85. The 5-item scale that was administered to assess perceived ethnic discrimination has responses that range from 1 (strongly disagree) to 4 (strongly agree) while higher scores indicate greater perceived ethnic discrimination. The measure has demonstrated good internal consistency (.85; Kulis et al., 2009) and displayed good reliability in the current study with a Cronbach's alpha of .74.

**Self-Perception Profile for Adolescents (SPPA;** Harter, 1988; Spanish translation by Dimmit, 1996). The SPPA is a 45-item questionnaire that was used to measure adolescents' self-esteem. The SPPA assesses adolescents' perceptions of competence across various domains, including behavioral conduct, physical appearance, and social acceptance, as well as an overall measure of global self-worth. In order to complete the measure, adolescents first determine which kind of teenager describes them best (e.g., "Some teenagers find it hard to make friends, BUT for other teenagers it's pretty easy") and then determine how true that statement is for them. While the behavioral conduct, physical appearance, and social acceptance domains focus on specific characteristic and abilities, global self-worth assesses self-esteem more directly and consists of items that relate to how much one likes himself/herself and is happy with the way that he/she is. Using a Likert scale from 1 to 4, higher scores indicate greater perceived competence or self-

worth, whereas lower scores indicate lower perceived competence and self-worth. The behavioral conduct, physical appearance, social acceptance, and global self-worth subscales have demonstrated acceptable internal consistency in past studies (Harter, 1988) and good reliability in the current study with Cronbach's alphas of .82, .81, .70, and .83, respectively.

## Results

### Preliminary Analyses

Descriptive statistics for the predictor and outcomes variables are presented in Table 2. Regarding behavioral acculturation, adolescents reported high orientation toward both Latino culture ( $M = 3.84$ ,  $SD = 0.69$ ) and mainstream Anglo culture ( $M = 3.87$ ,  $SD = 0.49$ ). Regarding cognitive acculturation, adolescents reported stronger adherence to traditional Latino values ( $M = 4.15$ ,  $SD = 0.51$ ) than mainstream Anglo values ( $M = 2.80$ ,  $SD = 0.64$ ). Regarding biculturalism, adolescents reported slightly higher levels of behavioral biculturalism ( $M = 3.86$ ,  $SD = 0.46$ ) than cognitive biculturalism ( $M = 3.77$ ,  $SD = 0.44$ ), although both represent high bicultural orientation. Additionally, adolescents reported moderate levels of acculturation stress ( $M = 1.15$ ,  $SD = 0.23$ ) and mild levels of acculturation conflict ( $M = 1.66$ ,  $SD = 0.78$ ) and perceived ethnic discrimination ( $M = 1.24$ ,  $SD = 0.37$ ). Regarding global self-worth and perceived competence, adolescents reported moderate levels of global self-worth ( $M = 3.19$ ,  $SD = 0.70$ ) and moderate levels of perceived competence related to behavioral conduct ( $M = 2.97$ ,  $SD = 0.78$ ), physical appearance ( $M = 2.83$ ,  $SD = 0.77$ ), and social acceptance ( $M = 3.07$ ,  $SD = 0.64$ ).

In addition, independent samples t-tests were conducted to compare the scores of the predictor and outcome variables for males and females. With the exception of MAV, no significant differences between genders emerged. Regarding MAV, there was a significant difference in scores for males ( $M = 4.27$ ,  $SD = 42$ ) and females,  $M = 4.04$ ,  $SD = 0.57$ ;  $t(80) = 2.01$ ,  $p \leq .05$ , indicating that the male participants reported greater adherence to traditional Latino values than the female participants.

### Primary Analyses

To test the first hypothesis that bicultural orientation on both behavioral and cognitive measures of acculturation (i.e., ARSMAbi and MACVSbi) would be positively related to global self-worth, correlation

analyses were conducted (see Table 3). None of the acculturation variables significantly correlated with global self-worth.

Table 2  
*Descriptive Statistics for Predictor and Outcome Measures*

Measures	Mean	SD
ARSMA-II		
MOS	3.84	0.69
AOS	3.87	0.49
MACVS		
MAV	4.15	0.51
AV	2.80	0.64
Biculturalism		
ARSMAbi	3.86	0.46
MACVSbi	3.77	0.44
Acculturation risk factors		
Acculturation stress	1.15	0.23
Acculturation conflict	1.66	0.78
Perceived ethnic discrimination	1.24	0.37
SPPA		
Global self-worth	3.19	0.70
Behavioral conduct	2.97	0.78
Physical appearance	2.83	0.77
Social acceptance	3.07	0.64

*Note.* MOS = Mexican Orientation Scale, AOS = Anglo Orientation Scale, MAV = Mexican American Values Scale, AV = Mainstream Values Scale, ARSMAbi = Behavioral biculturalism, MACVSbi = Cognitive biculturalism.

In order to test the second hypothesis that orientation to Latino culture on both behavioral and cognitive measures of acculturation (i.e., MOS and MAV) would be positively related to perceived competence regarding behavioral conduct, whereas orientation to mainstream Anglo culture on both behavioral and cognitive measures of acculturation (i.e., AOS and AV) would be negatively related to perceived competence regarding behavioral conduct, correlation analyses were conducted (see Table 3). MOS was significantly associated with behavioral conduct ( $r = .31, p \leq .01$ ), indicating that adolescents

who reported higher orientation to Latino culture on the measure of behavioral acculturation had greater perceived competence regarding behavioral conduct. Additionally, ARSMabi was significantly associated with behavioral conduct ( $r = .28, p \leq .01$ ), indicating that adolescents who reported higher bicultural orientation on the measure of behavioral acculturation had greater perceived competence regarding behavioral conduct.

Table 3

*Correlations for Adolescents' Global Self-Worth and Perceived Competence Across Various Domains with Latino Orientation, Anglo Orientation, and Bicultural Orientation on Measures of Acculturation*

	Global self-worth	Behavioral conduct	Physical appearance	Social acceptance
ARSMa-II MOS	.12	.31**	.05	.06
ARSMa-II AOS	.17	.08	.17	.18
MACVS MAV	.15	.18	.17	.08
MACVS AV	.13	.05	.10	.16
ARSMabi	.18	.28**	.11	.12
MACVSbi	.18	.17	.18	.13

*Note.* MOS = Mexican Orientation Scale, AOS = Anglo Orientation Scale, MAV = Mexican American Values Scale, AV = Mainstream Values Scale, ARSMabi = Behavioral biculturalism, MACVSbi = Cognitive biculturalism.

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

In order to test the third hypothesis that orientation to Latino culture on both behavioral and cognitive measures of acculturation (i.e., MOS and MAV) would be positively related to perceived competence regarding physical appearance, whereas orientation to mainstream Anglo culture on both behavioral and cognitive measures of acculturation (i.e., AOS and AV) would be negatively related to perceived competence regarding physical appearance, correlation analyses were conducted (see Table 3). None of the acculturation variables were significantly correlated with physical appearance.

In order to test the fourth hypothesis that bicultural orientation on both behavioral and cognitive measures of acculturation (i.e., ARSMabi and MACVSbi) would be positively related to social acceptance, correlation analyses were conducted (see Table 3). None of the acculturation variables were significantly correlated with social acceptance.

In order to test the final hypotheses that acculturation risk factors (i.e., acculturation stress, acculturation conflict, and perceived ethnic discrimination) would be negatively related to global self-worth and perceived competence regarding behavioral conduct, physical appearance, and social acceptance, correlation analyses were conducted (see Table 4). Acculturation stress was significantly related to global self-worth ( $r = -.42, p \leq .001$ ), physical appearance ( $r = -.31, p \leq .01$ ), and social acceptance ( $r = -.35, p \leq .001$ ), indicating that adolescents who reported higher acculturation stress had lower global self-worth and perceived competence regarding physical appearance and social acceptance. Acculturation conflict was significantly related to global self-worth ( $r = -.48, p \leq .001$ ), behavioral conduct ( $r = -.36, p \leq .001$ ), physical appearance ( $r = -.39, p \leq .001$ ), and social acceptance ( $r = -.23, p \leq .05$ ), indicating that adolescents who reported higher acculturation conflict had lower global self-worth and perceived competence regarding behavioral conduct, physical appearance, and social acceptance. Perceived ethnic discrimination was significantly related to global self-worth ( $r = -.30, p \leq .01$ ), behavioral conduct ( $r = -.23, p \leq .05$ ), physical appearance ( $r = -.30, p \leq .01$ ), and social acceptance ( $r = -.31, p \leq .01$ ), indicating that adolescents who reported higher perceived ethnic discrimination had lower global self-worth and perceived competence regarding behavioral conduct, physical appearance, and social acceptance.

Table 4

*Correlations for Adolescents' Global Self-Worth and Perceived Competence Across Various Domains with Acculturation Risk Factors*

	Global self-worth	Behavioral conduct	Physical appearance	Social acceptance
Acculturation stress	-.42***	-.18	-.31**	-.35***
Acculturation conflict	-.48***	-.36***	-.39***	-.23*
Perceived ethnic discrimination	-.30**	-.23*	-.30**	-.31**

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

### Exploratory Analyses

To further examine the relationships among acculturation, acculturation risk factors, and global self-worth and perceptions of competence, exploratory analyses related to which acculturation-related variables were most predictive of adolescents' global self-worth and perceived competence were conducted



Table 5  
 Summary of Hierarchical Multiple Regression Analyses for Latino Orientation on Measures of Acculturation and Acculturation Risk Factors Predicting Adolescents' Global Self-Worth and Perceptions of Competence

Variable	Global self-worth				Behavioral conduct				Physical appearance				Social acceptance			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	$\beta$				$\beta$				$\beta$				$\beta$			
<i>Step 1</i>																
ARSMA-II MOS	.10	.06	.15	.13	.28**	.24*	.25*	.19	.02	-.02	.06	.02	.04	.07	.14	.14
MACVS MAV	.13	.15	.21	.21	.13	.14	.14	.15	.16	.17	.16	.08	.07	.05	.16	.16
<i>Step 2</i>																
Stress		-.26*	-.23 <sup>+</sup>	-.20	-.06	-.00	.05		-.15	-.18	-.09		-.30*	-.25 <sup>+</sup>	-.25	
Conflict		-.33**	-.49**	-.54**	-.26*	-.33 <sup>+</sup>	-.39*		-.28*	-.35*	-.38*		.03	-.15	-.17	
Discrimination		-.05	-.01	.05	-.07	-.07	-.11		-.12	-.09	-.11		-.22 <sup>+</sup>	-.14	-.12	
<i>Step 3</i>																
MOS × Stress			.22*	.24*			.04	.02			.02	-.08			.09	.09
MOS × Conflict			-.26*	-.30*			-.11	-.13			-.18	-.17			-.20	-.21
MOS × Discrimination			.03	.04			.03	.06			.17	.17			.11	.11
MAV × Stress			.07	.13			-.02	.00			.20	-.04			-.05	-.03
MAV × Conflict			.06	.05			-.08	-.05			-.12	.02			.22	.22
MAV × Discrimination			-.08	-.14			-.15	-.14			-.07	-.11			-.15	-.17
<i>Step 4</i>																
MOS × MAV × Stress				-.08				-.07				.35				-.02
MOS × MAV × Conflict				.16				.28				-.10				.03
MOS × MAV × Discrimination				-.16				.05				.05				-.06
R <sup>2</sup>	.03	.31***	.39***	.40***	.11**	.22**	.25*	.31*	.03	.22**	.29**	.33*	.01	.18**	.23 <sup>+</sup>	.23
$\Delta R^2$	.03	.28***	.08	.01	.11**	.11*	.04	.06	.03	.19***	.07	.04	.01	.17**	.05	.00

Notes. All variables were centered at their means. Regressions were interpreted at the last step that produced a significant change in R squared.

\* $p \leq .05$ . \*\* $p \leq .01$ . \*\*\* $p \leq .001$ . <sup>+</sup> $p \leq .08$

using a series of hierarchical multiple regressions. Additionally, moderation effects were assessed by entering interaction terms into the regression models. In order to avoid problems with multicollinearity, all variables were centered at their means, and the centered variables were used to create the interaction terms (Aiken & West, 1991). In order to examine Latino orientation, Anglo orientation, and bicultural orientation on both behavioral and cognitive measures of acculturation independently, three models (i.e., Latino orientation, Anglo orientation, bicultural orientation) were tested for each dependent variable. All hierarchical multiple regressions were interpreted at the last step that produced a significant change in R squared.

**Latino orientation.** First, hierarchical multiple regressions were used to examine the main and interaction effects of Latino orientation on both behavioral and cognitive measures of acculturation (i.e., MOS and MAV) and acculturation risk factors (i.e., acculturation stress, acculturation conflict, and perceived ethnic discrimination). See Table 5 for more details. For each hierarchical multiple regression, Latino orientation on both behavioral and cognitive measures of acculturation was entered into step 1;

acculturation risk factors were entered into step 2; two-way interactions between Latino orientation and acculturation risk factors were entered into step 3 (e.g., MOS  $\times$  acculturation stress, MAV  $\times$  acculturation stress); and the three-way interactions between Latino orientation and acculturation risk factors were entered into step 4 (e.g., MOS  $\times$  MAV  $\times$  acculturation stress).

Regarding global self-worth, the acculturation risk factors that were entered into step 2 explained 28.2% of the variance in global self-worth, which was a significant change ( $F$  change (3, 73) = 10.00,  $p \leq .001$ ). The overall model was significant ( $F$  (5, 73) = 6.68,  $p \leq .001$ ) and explained 31.4% of the total variance. Examination of individual factors indicated that acculturation stress ( $\beta = -.26$ ,  $p \leq .05$ ) and acculturation conflict ( $\beta = -.33$ ,  $p \leq .01$ ) were statistically significant and negatively associated with global self-worth. Regarding perceived competence related to behavioral conduct, Latino orientation on both behavioral and cognitive measures of acculturation explained 10.9% of the variance in behavioral conduct, which was a significant change ( $F$  change (2, 76) = 4.63,  $p \leq .01$ ). Additionally, the acculturation risk factors that were entered into step 2 explained an additional 10.7% of the variance in behavioral conduct, which was a significant change ( $F$  change (3, 73) = 3.32,  $p \leq .05$ ). This overall model was significant ( $F$  (5, 73) = 4.02,  $p \leq .01$ ) and explained 21.6% of the total variance. Examination of individual factors indicated that MOS ( $\beta = .24$ ,  $p \leq .05$ ) and acculturation conflict ( $\beta = -.26$ ,  $p \leq .05$ ) were statistically significant. While behavioral conduct was positively associated with MOS, it was negatively associated with acculturation conflict.

Regarding perceived competence related to physical appearance, the acculturation risk factors that were entered into step 2 explained 18.8% of the variance in physical appearance, which was a significant change ( $F$  change (3, 73) = 5.83,  $p \leq .001$ ). This overall model was significant ( $F$  (5, 73) = 4.02,  $p \leq .01$ ) and explained 21.6% of the total variance. Examination of individual factors indicated that acculturation conflict was statistically significant and negatively associated with physical appearance ( $\beta = -.28$ ,  $p \leq .05$ ). Regarding perceived competence related to social acceptance, the acculturation risk factors that were entered into step 2 explained 16.8% of the variance in social acceptance, which was a significant change ( $F$  change (3, 73) = 4.98,  $p \leq .01$ ). This overall model was significant ( $F$  (5, 73) = 3.14,  $p \leq .01$ ) and explained 17.7% of the total variance. Examination of individual factors indicated that acculturation stress was statistically significant ( $\beta = -.30$ ,  $p \leq .05$ ); perceived ethnic discrimination approached significance ( $\beta = -$

.22,  $p \leq .08$ ). Both acculturation stress and perceived ethnic discrimination were negatively associated with social acceptance.

**Anglo orientation.** Similarly, hierarchical multiple regressions were used to examine the main and interaction effects of Anglo orientation on both behavioral and cognitive measures of acculturation (i.e., AOS and AV) and acculturation risk factors (i.e., acculturation stress, acculturation conflict, and perceived ethnic discrimination). See Table 6 for more details. For each hierarchical multiple regression, Anglo orientation on both behavioral and cognitive measures of acculturation was entered into step 1; acculturation risk factors were entered into step 2; two-way interactions between Anglo orientation and acculturation risk factors were entered into step 3 (e.g., AOS  $\times$  acculturation stress, AV  $\times$  acculturation stress); and the three-way interactions between Latino orientation and acculturation risk factors were entered into step 4 (e.g., AOS  $\times$  AV  $\times$  acculturation stress).

Table 6  
Summary of Hierarchical Multiple Regression Analyses for Anglo Orientation on Measures of Acculturation and Acculturation Risk Factors Predicting Adolescents' Global Self-Worth and Perceptions of Competence

Variable	Global self-worth				Behavioral conduct				Physical appearance				Social acceptance			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	$\beta$				$\beta$				$\beta$				$\beta$			
<i>Step 1</i>																
ARSMA-II AOS	.17	.06	-.01	.02	.07	.00	.00	-.01	.16	.08	.05	-.04	.17	.12	.08	.09
MACVS AV	.11	.18 <sup>+</sup>	.27*	.30*	.05	.12	.12	.08	.08	.16	.27*	.32*	.15	.20 <sup>+</sup>	.25 <sup>+</sup>	.26 <sup>+</sup>
<i>Step 2</i>																
Stress		-.22 <sup>+</sup>	-.06	-.18	.02	.02	.10		-.12	.02	-.03		-.25*	-.13	-.08*	
Conflict		-.34**	-.55**	-.54**	-.33*	-.22	-.22		-.26*	-.46*	-.45*		.02	-.24	-.26	
Discrimination		-.11	-.05	-.03	-.11	-.15	-.16		-.18	-.12	-.19		-.28*	-.20	-.20	
<i>Step 3</i>																
AOS $\times$ Stress			.21	.13			-.07	-.03			.06	.02		.25 <sup>+</sup>	.30 <sup>+</sup>	
AOS $\times$ Conflict			-.25	-.21			.18	.16			-.20	-.17		-.34 <sup>+</sup>	-.35 <sup>+</sup>	
AOS $\times$ Discrimination			.09	.09			.06	.07			-.08	-.20		.04	.06	
AV $\times$ Stress			-.21	-.11			.00	-.04			-.28	-.23		-.20	-.28	
AV $\times$ Conflict			.58**	.53*			.18	.17			.42 <sup>+</sup>	.39		.22	.33	
AV $\times$ Discrimination			-.28*	-.29 <sup>+</sup>			-.24	-.21			-.10	-.05		.01	-.04	
<i>Step 4</i>																
AOS $\times$ AV $\times$ Stress				.27				-.18				.16				-.13
AOS $\times$ AV $\times$ Conflict				-.13				.04				-.07				.15
AOS $\times$ AV $\times$ Discrimination				.05				-.04				.22				-.07
R <sup>2</sup>	.04	.32***	.46***	.48***	.01	.15*	.20	.22	.04	.22**	.27*	.29*	.06	.23**	.28*	.29*
$\Delta R^2$	.04	.28***	.14*	.02	.01	.14**	.06	.01	.04	.19***	.05	.02	.06	.17**	.06	.01

Notes. All variables were centered at their means. Regressions were interpreted at the last step that produced a significant change in R squared.  
\* $p \leq .05$ . \*\* $p \leq .01$ . \*\*\* $p \leq .001$ . <sup>+</sup> $p \leq .08$

Regarding global self-worth, the acculturation risk factors that were entered into step 2 explained 27.9% of the variance in global self-worth, which was a significant change ( $F$  change (3, 73) = 10.03,  $p \leq .001$ ). Additionally, the two-way interactions between Anglo orientation and acculturation risk factors that were entered into step 3 explained an additional 13.7% of the variance in global self-worth, which was a significant change ( $F$  change (6, 67) = 2.84,  $p \leq .05$ ). This overall model was significant ( $F$  (11, 67) = 5.18,  $p \leq .001$ ) and explained 45.9% of the total variance. Examination of individual factors indicated that AV ( $\beta = .27, p \leq .05$ ) and acculturation conflict ( $\beta = -.55, p \leq .01$ ) were statistically significant. While global self-worth was positively associated with AV, it was negatively associated with acculturation conflict. Additionally, the interactions between AV and acculturation conflict ( $\beta = .58, p \leq .01$ ) and AV and perceived ethnic discrimination ( $\beta = -.28, p \leq .05$ ) were significant, indicating that the effects of acculturation conflict and perceived ethnic discrimination on global self-worth depended on the level of Anglo orientation on the cognitive measure of acculturation.

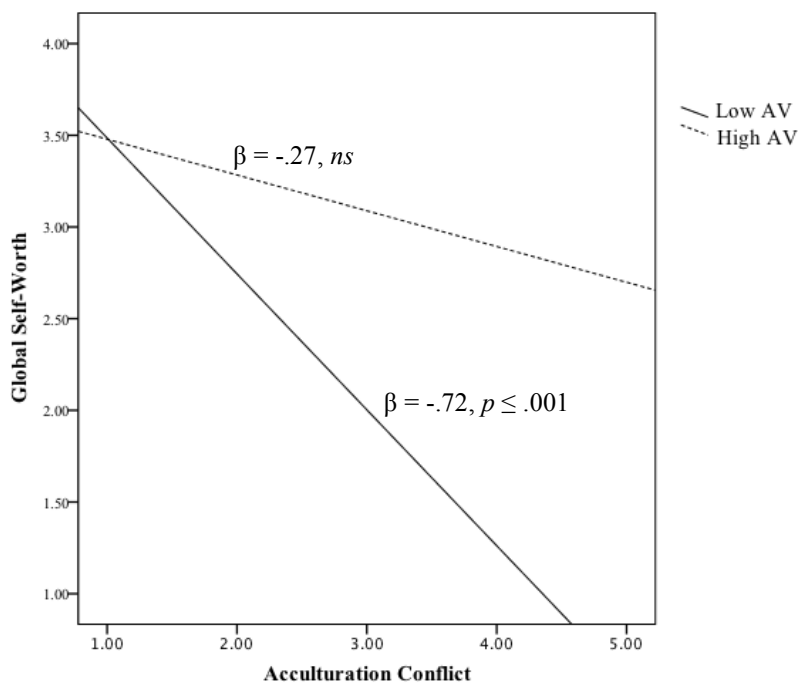


Figure 1. Global self-worth and acculturation conflict by Anglo orientation on the cognitive measure of acculturation (AV).

To further examine these moderating effects, a median split on AV was used to create two groups – high and low levels of AV. Simple slopes for the association between acculturation conflict and global self-worth were examined separately for high and low levels of AV. Higher levels of acculturation conflict predicted lower levels of global self-worth for adolescents with low AV ( $\beta = -.72, p \leq .001$ ), but not for those with high AV ( $\beta = -.27, ns$ ). This result can be seen in Figure 1. Additionally, simple slopes for the association between perceived ethnic discrimination and global self-worth were examined separately for high and low levels of AV. Higher levels of perceived ethnic discrimination predicted lower levels of global self-worth for adolescents with high AV ( $\beta = -.45, p \leq .01$ ), but not for those with low AV ( $\beta = -.22, ns$ ). This result can be seen in Figure 2.

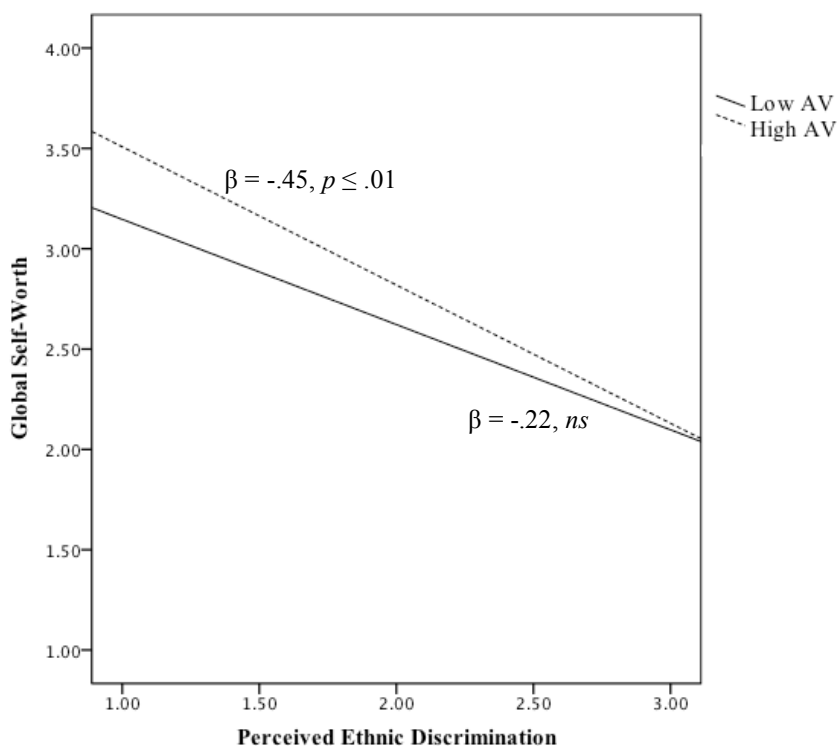


Figure 2. Global self-worth and perceived ethnic discrimination by Anglo orientation on the cognitive measure of acculturation (AV).

Regarding perceived competence related to behavioral conduct, the acculturation risk factors that were entered at step 2 explained 13.9% of the variance in behavioral conduct, which was a significant change ( $F$  change (3, 73) = 3.98,  $p \leq .01$ ). This overall model was significant ( $F$  (5, 73) = 2.53,  $p \leq .05$ ) and

explained 14.8% of the total variance. Examination of individual factors indicated that acculturation conflict was statistically significant and negatively associated with behavioral conduct ( $\beta = -.33, p \leq .05$ ). Regarding perceived competence related to physical appearance, the acculturation risk factors that were entered at step 2 explained 18.5% of the variance in physical appearance, which was a significant change ( $F$  change (3, 73) = 5.78,  $p \leq .001$ ). This overall model was significant ( $F$  (5, 73) = 4.12,  $p \leq .01$ ) and explained 22.0% of the total variance. Examination of individual factors indicated that acculturation conflict was statistically significant and negatively associated with physical appearance ( $\beta = -.26, p \leq .05$ ). Regarding perceived competence related to social acceptance, the acculturation risk factors that were entered at step 2 explained 17.0% of the variance in social acceptance, which was a significant change ( $F$  change (3, 73) = 5.33,  $p \leq .01$ ). This overall model was significant ( $F$  (5, 73) = 4.24,  $p \leq .01$ ) and explained 22.5% of the total variance. Examination of individual factors indicated that acculturation stress ( $\beta = -.25, p \leq .05$ ) and perceived ethnic discrimination ( $\beta = -.28, p \leq .05$ ) were statistically significant; AV approached statistical significance ( $\beta = .20, p \leq .08$ ). While social acceptance was negatively associated with acculturation stress and perceived ethnic discrimination, it was positively associated with AV.

**Bicultural orientation.** Hierarchical multiple regressions were used to examine the main and interaction effects of bicultural orientation on both behavioral and cognitive measures of acculturation (i.e., ARSMAbi and MACVSbi) and acculturation risk factors (i.e., acculturation stress, acculturation conflict, and perceived ethnic discrimination). See Table 7 for more details. For each hierarchical multiple regression, bicultural orientation on both behavioral and cognitive measures of acculturation was entered into step 1; acculturation risk factors were entered into step 2; two-way interactions between bicultural orientation and acculturation risk factors were entered into step 3 (e.g., ARSMAbi  $\times$  acculturation stress, MACVSbi  $\times$  acculturation stress); and the three-way interactions between Latino orientation and acculturation risk factors were entered into step 4 (e.g., ARSMAbi  $\times$  MACVSbi  $\times$  acculturation stress).

Regarding global self-worth, the acculturation risk factors that were entered into step 2 explained 27.8% of the variance in global self-worth, which was a significant change ( $F$  change (3, 73) = 10.10,  $p \leq .001$ ). Additionally, the two-way interactions between bicultural orientation and acculturation risk factors that were entered into step 3 explained an additional 12.1% of the variance in global self-worth, which was a significant change ( $F$  change (6, 67) = 2.45,  $p \leq .05$ ). This overall model was significant ( $F$  (11, 67) =

4.98,  $p \leq .001$ ) and explained 45.0% of the total variance. Examination of individual factors indicated that MACVSbi ( $\beta = .31, p \leq .01$ ) and acculturation conflict ( $\beta = -.59, p \leq .001$ ) were statistically significant. While global self-worth was positively associated with MACVSbi, it was negatively associated with acculturation conflict. Additionally, the interaction between ARSMabi and acculturation conflict was significant ( $\beta = -.31, p \leq .05$ ), indicating that the effects of acculturation conflict on global self-worth depended on the level of bicultural orientation on the behavioral measure of acculturation.

Table 7

Summary of Hierarchical Multiple Regression Analyses for Bicultural Orientation on Measures of Acculturation and Acculturation Risk Factors Predicting Adolescents' Global Self-Worth and Perceptions of Competence

Variable	Global self-worth				Behavioral conduct				Physical appearance				Social acceptance			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	$\beta$				$\beta$				$\beta$				$\beta$			
<i>Step 1</i>																
ARSMabi	.15	.06	.14	.17	.26*	.18	.26*	.22	.07	-.01	.04	.10	.10	.09	.16	.16
MACVSbi	.14	.19 <sup>+</sup>	.31**	.26*	.12	.15	.20	.18	.16	.20 <sup>+</sup>	.26*	.16	.11	.11	.23	.23
<i>Step 2</i>																
Stress		-.25*	-.15	-.18	-.02	.05	.03		-.14	-.12	-.19		-.30*	-.19	-.18	
Conflict		-.34**	-.59***	-.65***	-.28*	-.36 <sup>+</sup>	-.45*		-.28*	-.47*	-.47*		.04	-.21	-.22	
Discrimination		-.06	.01	.14	-.09	-.06	-.04		-.13	-.06	-.05		-.23 <sup>+</sup>	-.14	-.13	
<i>Step 3</i>																
ARSMabi × Stress			.16	.17		.03	.15		-.03	.03			.06	.05		
ARSMabi × Conflict			-.31*	-.35*		-.09	-.18		-.26	-.17			-.26	-.27		
ARSMabi × Discrimination			.04	.12		.09	.14		.09	.13			.08	.08		
MACVSbi × Stress			.04	.00		-.04	-.13		.17	-.08			-.05	-.01		
MACVSbi × Conflict			.28 <sup>+</sup>	.34*		.09	.18		.08	.16			.31	.30		
MACVSbi × Discrimination			-.22	-.35*		-.30 <sup>+</sup>	-.37*		-.13	-.20			-.22	-.22		
<i>Step 4</i>																
ARSMabi × MACVSbi × Stress				.10			.06			.40						-.05
ARSMabi × MACVSbi × Conflict				.05			.27			-.11						.01
ARSMabi × MACVSbi × Discrimination				-.19			-.05			.06						-.03
R <sup>2</sup>	.05	.33***	.45***	.47***	.09*	.20**	.25*	.30*	.04	.23**	.29**	.34**	.03	.19**	.26*	.26
ΔR <sup>2</sup>	.05	.28***	.12*	.02	.09*	.11*	.05	.06	.04	.19***	.07	.04	.03	.17**	.07	.00

Notes. All variables were centered at their means. Regressions were interpreted at the last step that produced a significant change in R squared.

To further examine this moderating effect, a median split on ARSMabi was used to create two groups – high and low levels of ARSMabi. Simple slopes for the association between acculturation conflict and global self-worth were examined separately for high and low levels of ARSMabi. Higher levels of acculturation conflict predicted lower levels of global self-worth for adolescents with low ARSMabi ( $\beta = -.47, p \leq .01$ ) and high ARSMabi ( $\beta = -.50, p \leq .001$ ), although this relationship was stronger for adolescents with high ARSMabi. This result can be seen in Figure 3. In addition, the interaction between MACVSbi and acculturation conflict ( $\beta = .28, p \leq .08$ ) approached significance,

indicating that the effects of acculturation conflict on global self-worth may also depend on the level of bicultural orientation on the cognitive measure of acculturation. To further examine this moderating effect, a median split on MACVSbi was used to create two groups – high and low levels of MACVSbi. Simple slopes for the association between acculturation conflict and global self-worth were examined separately for high and low levels of MACVSbi. Higher levels of acculturation conflict predicted lower levels of global self-worth for adolescents with low MACVSbi ( $\beta = -.70, p \leq .001$ ), but not for those with high MACVSbi ( $\beta = -.26, ns$ ). This result can be seen in Figure 4.

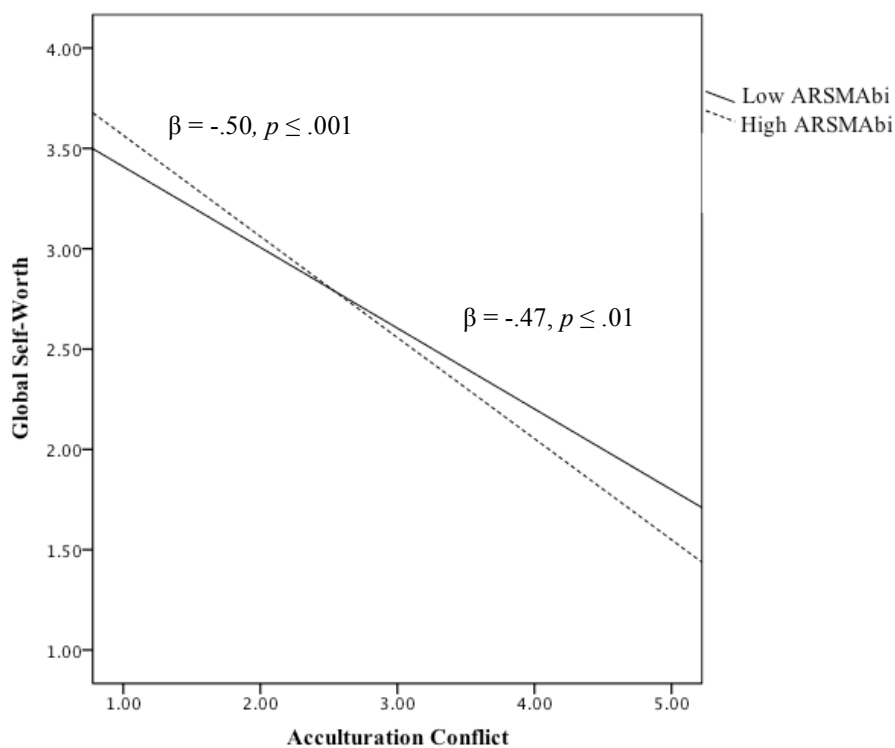


Figure 3. Global self-worth and acculturation conflict by bicultural orientation on the behavioral measure of acculturation (ARSMAbi).

Regarding perceived competence related to behavioral conduct, bicultural orientation on both behavioral and cognitive measures of acculturation explained 9.3% of the variance in behavioral conduct, which was a significant change ( $F$  change (2, 76) = 3.87,  $p \leq .05$ ). Additionally, the acculturation risk factors that were entered in step 2 explained an additional 10.7% of the variance in behavioral conduct, which was a significant change ( $F$  change (3, 73) = 3.24,  $p \leq .05$ ). This overall model was significant ( $F$  (5, 73) = 3.63,  $p \leq .01$ ) and explained 19.9% of the total variance. Examination of individual factors indicated



that acculturation conflict was statistically significant and negatively associated with behavioral conduct ( $\beta = -.28, p \leq .05$ ). Regarding perceived competence related to physical appearance, the acculturation risk factors that were entered in step 2 explained 19.2% of the variance in physical appearance, which was a significant change ( $F$  change (3, 73) = 6.05,  $p \leq .001$ ). This overall model was significant ( $F$  (5, 73) = 4.32,  $p \leq .01$ ) and explained 22.8% of the total variance. Examination of individual factors indicated that acculturation conflict was statistically significant ( $\beta = -.28, p \leq .05$ ); MACVSbi approached significance ( $\beta = .20, p \leq .08$ ). While physical appearance was negatively associated with acculturation conflict, it was positively associated with MACVSbi. Regarding perceived competence related to social acceptance, the acculturation risk factors that were entered in step 2 explained 16.8% of the variance in social acceptance, which was a significant change ( $F$  change (3, 73) = 5.06,  $p \leq .01$ ). This overall model was significant ( $F$  (5, 73) = 3.52,  $p \leq .01$ ) and explained 19.4% of the total variance. Examination of individual factors indicated that acculturation stress was statistically significant ( $\beta = -.30, p \leq .05$ ); perceived ethnic discrimination approached significance ( $\beta = -.23, p \leq .08$ ). Both acculturation stress and perceived ethnic discrimination were negatively associated with social acceptance.

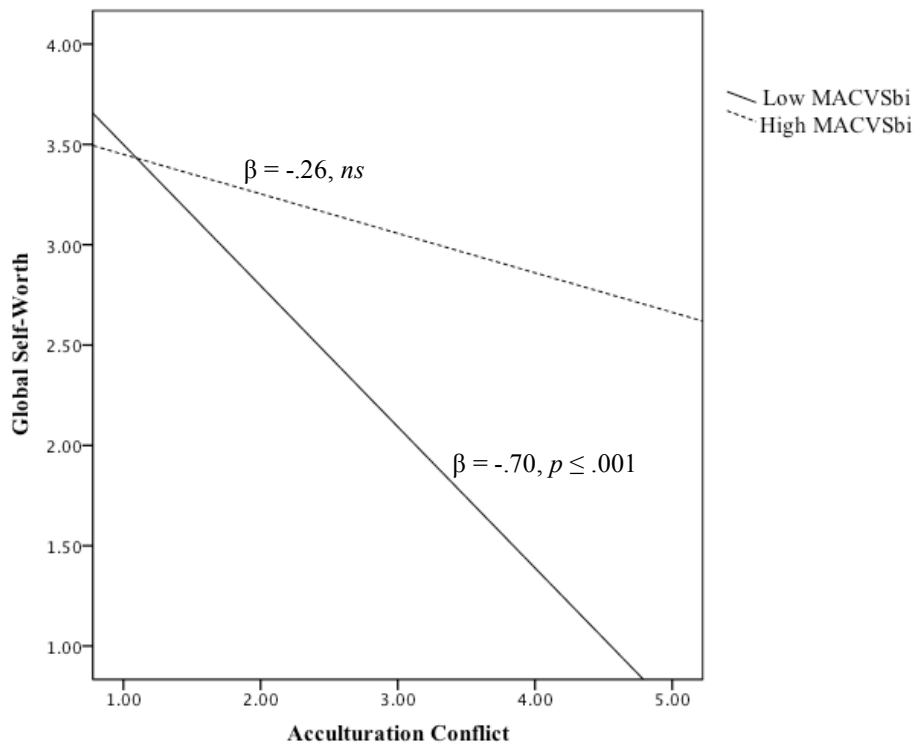


Figure 4. Global self-worth and acculturation conflict by bicultural orientation on the cognitive measure of acculturation (MACVSbi).

## Discussion

To address mental health disparities for Latino adolescents and their families, the goal of the current study was to examine the role of acculturation and related factors in explaining global self-worth and self-perceptions of competence in Latino adolescents. Specifically, the present study examined how cultural orientation (i.e., Latino orientation, orientation to mainstream U.S. culture, and bicultural orientation) across behavioral and cognitive dimensions of acculturation and acculturation risk factors (i.e., acculturation stress, acculturation conflict, and perceived ethnic discrimination) were related to adolescents' global self-worth and self-perceptions of competence across various domains (i.e., behavioral conduct, physical appearance, and social acceptance). Results suggested that both Latino and bicultural orientation on the behavioral measure of acculturation were positively associated with perceived competence regarding behavioral conduct. Results also suggested that acculturation risk factors (i.e., acculturation stress, acculturation conflict, and perceived ethnic discrimination) were largely negatively associated with global self-worth and self-perceptions of competence across various domains (i.e., behavioral conduct, physical appearance, and social acceptance). Additionally, exploratory analyses revealed that cultural orientation on both behavioral and cognitive measures of acculturation and acculturation risk factors predicted global self-worth and self-perceptions of competence across various domains (i.e., behavioral conduct, physical appearance, and social acceptance), and cultural orientation moderated the relationships between acculturation conflict and perceived ethnic discrimination with adolescents' global self-worth.

Given that relatively little is known about Latino adolescents living in the U.S., one important aspect of the current study is that it contributes to existing knowledge of an understudied population. As previously stated, most adolescents who participated in the current study were born in the U.S. and were bilingual. Based on responses to the behavioral measure of acculturation, adolescents reported high orientation to both Latino and mainstream U.S. cultures. Considering Cuéllar and colleagues' (1995) acculturation typology, the current study's participants generally fit into the *high integrated bicultural* acculturation category, meaning that they maintained a bicultural orientation on the behavioral measure of acculturation. These results are consistent with modern theory that suggests that Latino adolescents are

likely to develop a bicultural identity (Knight et al., 2010). However, based on responses to the cognitive measure of acculturation, adolescents reported greater adherence to traditional Latino values than mainstream U.S. values. These findings provide additional support for the bicultural, multidimensional nature of acculturation and are consistent with theories suggesting that changes to one's values and beliefs are more likely to occur in the final stage of acculturation (Marín, 1992; Marín & Gamba, 2003). Adolescents also reported moderate levels of acculturation stress, mild levels of acculturation conflict and perceived ethnic discrimination, and high levels of global self-worth and perceived competence regarding behavioral conduct, physical appearance, and social acceptance.

Although the preliminary analyses contributed to a better understanding of Latino adolescents living in the U.S., the primary aim of the study was to examine acculturation and acculturation risk factors in relation to global self-worth and self-perceptions of competence in adolescents. Contrary to the first prediction, bicultural orientation on the behavioral and cognitive measures of acculturation was not significantly associated with global self-worth. Given the growing body of literature that suggests that biculturalism predicts positive self-esteem outcomes (Bautista de Domanico, et al., 1994; Birman, 1998; Smokowski & Bacallao, 2007) and leads to better adaptation for immigrant and ethnic minority youth in the U.S. (Gonzales et al., 2002, Gil et al., 1994), these findings are not consistent with previous literature. One explanation for these findings is that the relationship between biculturalism and global self-worth may depend on other factors, such as acculturation risk factors (i.e., acculturation stress, acculturation conflict, and perceived ethnic discrimination) or family functioning.

However, it also is possible that maintaining a bicultural orientation may present unique challenges for this population, further complicating the effects on adolescents' global self-worth. For example, it is possible that the demands of maintaining competency in two cultures may place youth at greater risk of experiencing internal distress (e.g., identity confusion) and conflict with others (e.g., intergenerational acculturation conflict), which may threaten one's global self-worth (Knight et al., 2010). Additionally, although many have argued that biculturalism is the most adaptive acculturation strategy (Berry, 1997), others have argued that there is not enough evidence to support it as the best alternative (Rudmin, 2003). In fact, some argue that biculturalism may be especially difficult and potentially distressing for those who attempt to uphold two cultures that are fundamentally different from each other

(e.g., collectivist vs. individualist cultures; Schwartz, Montgomery, & Briones, 2006). Thus, additional research is needed to test these theories empirically.

The second prediction that Latino orientation on the behavioral and cognitive measures of acculturation would be positively associated with perceived competence regarding behavioral conduct was partially supported. Both Latino and bicultural orientation on the behavioral measure of acculturation were significantly positively associated with perceived competence regarding behavioral conduct. A number of studies have established the link between acculturation and increased rates of delinquent behavior and aggression among adolescents (Buriel et al., 1982; Samaniego & Gonzales, 1999; Fridrich & Flannery, 1995; Sullivan et al., 2007; Coatsworth et al., 2005), leading researchers to conclude that adhering to traditional Latino cultural values and practices may protect against the development of problem behavior in adolescents. However, few studies have examined acculturation in relation to perceived competence regarding behavioral conduct, but the fact that Latino orientation on the behavioral measure of acculturation was significantly associated with perceived competence regarding behavioral conduct is consistent with previous literature examining delinquent behavior in Latino adolescents. The fact that bicultural orientation on the behavioral measure of acculturation also was positively associated with perceived competence regarding behavioral conduct is not surprising. Given that many studies have relied on one-dimensional linear measures of acculturation in examining the link between acculturation and problem behaviors in Latino adolescents (e.g., Dinh et al., 2002), it has not always been possible to examine the effects of biculturalism. However, this finding is consistent with a recent study that found that bicultural youth reported fewer behavior problems than more acculturated youth who may be experiencing rapid cultural changes (Coatsworth et al., 2005). However, additional research is needed to examine self-perceptions of behavioral conduct, as this is a related but distinct concept.

Contrary to the third prediction, Latino orientation on the behavioral and cognitive measures of cognitive acculturation was not significantly associated with perceived competence regarding physical appearance. Although there are conflicting findings regarding the association between acculturation and body satisfaction (e.g., Lopez et al., 1995; Nieri et al., 2005; Joiner & Kashubeck, 1996), some researchers have concluded that stronger adherence to socially sanctioned standards of appearance, many of which are represented in mainstream U.S. culture, predicts greater body dissatisfaction in Latino adolescents (Ayala

et al., 2007). Thus, the current study's findings are not consistent with previous literature. However, one explanation for these findings may be that perceived competence regarding physical appearance taps a different construct than many of the variables that have been assessed in previous literature (e.g., body dissatisfaction, eating disorder symptoms, and body image). Also, the majority of studies in this area have relied on adult populations, and it is possible that Latino adolescents are uniquely affected. In addition, the acculturation measures that were used in the current study may have assessed cultural behaviors and cognitions too generally, failing to assess practices and beliefs that may be more salient to perceived competence regarding physical appearance, such as valuing specific standards of beauty and attractiveness (Joiner & Kashubeck, 1996).

Similarly, the fourth prediction that bicultural orientation on the behavioral and cognitive measures of acculturation would have a positive relationship with perceived competence regarding social acceptance was not supported, as none of the acculturation variables were significantly associated with perceived competence regarding social acceptance. Although the research surrounding acculturation and competence regarding social acceptance is rather limited, available studies suggest that biculturalism enables youth to demonstrate competence in different social contexts (Oppedal, 2006) and higher levels of peer competence (Coatsworth et al., 2005). Thus, the current study's findings are not consistent with existing literature. However, given the fact that participants were recruited from schools that primarily served Latino youth and their families, participants' may not have needed to maintain a bicultural orientation in order to feel accepted by their peers. Furthermore, it is likely that other factors (i.e., acculturation risk factors, such as perceived ethnic discrimination) had a greater influence on whether they perceived themselves to be accepted by their peers, to be popular, and to have friends. Additionally, similar to that of perceived competence regarding physical appearance, perceived competence regarding social acceptance is a related but distinct concept from peer competence, a construct that has been examined in the literature (Coatsworth et al., 2005). Thus, additional research is needed to better understand the factors that influence perceived competence regarding social acceptance.

The final prediction that acculturation risk factors would have a negative relationship with global self-worth and perceptions of competence across various domains (i.e., behavioral conduct, physical appearance, and social acceptance) was largely supported. Acculturation stress was significantly negatively

associated with global self-worth and perceived competence regarding physical appearance and social acceptance; acculturation conflict and perceived ethnic discrimination were significantly negatively associated with global self-worth and perceived competence regarding behavioral conduct, physical appearance, and social acceptance. These results are consistent with previous literature, which has established the link between these acculturation risk factors and decreased self-esteem in youth (Gil & Vega, 1996; Vega et al., 1993; Szalacha et al., 2003; Smokowski & Bacallao, 2007), increased problematic behavior (Vega, et al., 1993), and more body image problems (Warren & Rios, 2013). Given that few studies have examined acculturation risk factors in relation to social acceptance among Latino adolescents, the current study provides valuable information on the nature of this relationship. The only finding that did not support the original prediction was that acculturation stress was not significantly associated with perceived competence regarding behavioral conduct. Although previous studies have documented the link between acculturation stressors and behavior problems in Latino adolescents (Vega et al., 1993; Vega et al., 1995, Samaniego & Gonzales, 1999), no studies have examined these factors in relation to perceived competence related to behavioral conduct. Thus, future studies are needed to examine this construct in more detail, as research has demonstrated that attitudes towards behavior predicts delinquent behavior among adolescents who have yet to engage in delinquent behavior (Engels, Luijpers, Landsheer & Meeus, 2004).

Interestingly, the exploratory analyses revealed that specific cultural orientations (i.e., Latino orientation, orientation to mainstream U.S. culture, and bicultural orientation) on the behavioral and cognitive measures of acculturation were significant predictors of global self-worth and perceived competence related to behavioral conduct. In particular, bicultural orientation on the cognitive measure of acculturation was a significant predictor of global self-worth. This finding provides support for the prediction that bicultural orientation would be positively associated with global self-worth and is consistent with previous literature, as a number of studies have documented the link between biculturalism and positive self-esteem outcomes in youth (Bautista de Domanico, et al., 1994; Birman, 1998; Smokowski & Bacallao, 2007). However, Anglo orientation on the cognitive measure of acculturation also significantly predicted global self-worth. This finding is somewhat supported by previous literature, as some studies using proxy measures of acculturation (i.e., length of time living in U.S. and generational status) have

found that acculturation is positively related to self-esteem (Gil & Vega, 1996; Dinh et al., 2002). However, other studies examining ethnic identity have determined that ethnic identity predicts higher self-esteem in adolescents (Martinez & Dukes, 1997; Phinney et al., 1997; Umaña-Taylor, 2004). In summary, these findings indicate that adhering to cultural values from both Latino and mainstream U.S. cultures or just mainstream U.S. culture predicts increased global self-worth in adolescents. Additionally, Latino orientation on the behavioral measure of acculturation was a significant predictor of perceived competence regarding behavioral conduct. This finding provides additional support for the prediction that Latino orientation would be positively associated with perceived competence regarding behavioral conduct. Given that previous literature has established the positive association between acculturation and delinquent behavior and aggression in youth (Dinh et al., 2002; Fridrich & Flannery, 1995; Sullivan et al., 2007; Coatsworth et al., 2005), this finding is consistent with existing literature.

Exploratory analyses also revealed that acculturation risk factors (i.e., acculturation stress, acculturation conflict, and perceived ethnic discrimination) were significant predictors of global self-worth and self-perceptions of competence. In particular, acculturation stress was a significant predictor of global self-worth and social acceptance; acculturation conflict was a significant predictor of global self-worth and perceptions of competence regarding behavioral conduct and physical appearance; and perceived ethnic discrimination was a significant predictor of social acceptance. These findings provide additional support for the prediction that acculturation risk factors would be negatively associated with global self-worth and self-perceptions of competence across various domains (i.e., behavioral conduct, physical appearance, and social acceptance). These results also are consistent with previous literature, which has documented the deleterious impacts of acculturation stress, acculturation conflict, and perceived ethnic discrimination (Gil & Vega, 1996; Vega et al., 1993; Szalacha et al., 2003; Warren & Rios, 2013). Acculturation conflict, in particular, proved to be the main risk factor for predicting global self-worth and self-perceptions of competence across all three models (i.e., Latino orientation, Anglo orientation, and bicultural orientation). One explanation for this may be that of all the acculturation risk factors that were examined in the current study, acculturation conflict may be the most salient to adolescents during this stage of development. Acculturation conflict is thought to exacerbate the normative kinds of parent-child conflict that occurs

during adolescence (Szapocznik & Williams, 2000; Szapocznik et al., 1980), making adolescents more likely to develop internalizing problems and low self-esteem (Smokowski & Bacallao, 2007).

The exploratory analyses further revealed that the relation between acculturation conflict and global self-worth depended on adolescents' cultural orientation on the cognitive and behavioral measures of acculturation. In particular, acculturation conflict predicted lower global self-worth for adolescents with low levels of mainstream U.S. values; however, global self-worth of adolescents with high levels of mainstream U.S. values was not affected. Similarly, acculturation conflict predicted lower global self-worth for adolescents with low levels of bicultural values; however, global self-worth of adolescents with high levels of bicultural values was not affected. Thus, in the context of acculturation conflict's negative effect on global self-worth, low adherence to mainstream U.S. values and bicultural values may be risk factors for Latino adolescents. Although it is likely that specific cultural values from both Latino and mainstream U.S. cultures may protect against acculturation conflict's adverse effects, more research is needed to determine which cultural values are of greatest significance.

According to resilience research, studies have found that the traditional Latino value of familism, a concept that refers to a strong connection to and dependence on one's family (Marín & Gamba, 2003), can protect against the development of externalizing behavior in adolescents (Germán, Gonzales, & Dumka, 2009). Similarly, mainstream U.S. values of autonomy and independence have been associated with resiliency in childhood as well (Zolkoski & Bullock, 2012). Exploratory analyses also revealed that acculturation conflict predicted lower global self-worth for adolescents with high bicultural orientation on the behavioral measure of acculturation than it did for adolescents with low bicultural orientation on the behavioral measure of acculturation. This finding seems to fit with existing literature on the intergenerational conflict that may occur as "acculturation gaps" develop in families due to the fact that children often adopt mainstream culture more quickly than older generations (Szapocznik et al., 1980), leading to decreased self-esteem in Latino youth (Gil & Vega, 1996; Smokowski & Bacallao, 2007).

Finally, exploratory analyses demonstrated that the relationship between perceived ethnic discrimination and global self-worth depended on adolescents' cultural orientation on the cognitive measure of acculturation. In particular, perceived ethnic discrimination predicted lower global self-worth for adolescents with high levels of mainstream U.S. values; however, the global self-worth of adolescents



with low levels of mainstream U.S. values was not affected. These findings are consistent with previous work examining both Latino adolescents and adults (Umaña-Taylor & Updegraff, 2007; Finch, Kolody, & Vega, 2000) and suggest that youth who are strongly oriented towards mainstream U.S. culture may be especially vulnerable to the negative effects of perceived ethnic discrimination. This may be attributed to the notion that adolescents who report greater affiliation to mainstream U.S. beliefs and values likely perceive themselves to be highly integrated into mainstream culture. Thus, experiencing perceived ethnic discrimination may be especially distressing for these adolescents because they identify with a culture whose members are treating them unfairly or dismissing them on the basis of their ethnicity, placing them at greater risk of experiencing depressive symptoms (Umaña-Taylor & Updegraff, 2007).

### **Limitations**

Several limitations of the current study should be noted. First, the current study relied solely on adolescents' reports of acculturation, acculturation risk factors (i.e., acculturation stress, conflict, and perceived ethnic discrimination), global self-worth, and self-perceptions of competence across various domains (i.e., behavioral conduct, physical appearance, and social acceptance). Although global self-worth is best assessed by the adolescents themselves (Harter, 1988), future studies should attempt to gather information from multiple informants (e.g., parents, teachers, etc.) to assess adolescents' actual degree of competence across various domains (i.e., behavioral conduct, physical appearance, and social acceptance) and consider using a comprehensive assessment to include a more objective measure of adolescents' acculturation and acculturation risk factors. Additionally, although available studies have presented conflicting findings, research has established a link between parental acculturation and mental health outcomes for Latino youth (e.g., Calzada, Brotman, Huang, Bat-Chava, & Kingston, 2009; Knight, Virdin, & Roosa, 1994; Dumka, Roosa, & Jackson, 1997). Thus, future studies should examine the influence of parental acculturation, which would also aid researchers in investigating discrepancies in acculturation in order to better understand intergenerational conflict.

In addition, the current study's relatively homogenous sample of Latino adolescents from an urban setting in Southeast Wisconsin may limit the study's generalizability. Thus, caution is warranted in applying these findings to Latino populations in other geographical areas, and future research should aim to replicate these findings in a larger and more geographically representative sample with additional Latino

subgroups. However, it is important to note that due to its narrow scope, the current study was able to provide valuable information on an understudied population- Latino adolescents living in the U.S.

Finally, limitations in the measurement of biculturalism should be noted. Given the way in which biculturalism was calculated from participants' scores on the behavioral and cognitive measures of acculturation, adolescents with opposite acculturation profiles (e.g., high orientation to Latino culture/low orientation to Anglo culture vs. high orientation to Anglo culture/low orientation to Latino culture) had the same biculturalism score. Also, the reliability for the AOS subscale of the ARSMA-II was lower than desirable. Research suggests that the reading level of the ARSMA-II can be difficult for adolescent populations (Unger, Ritt-Olson, Wagner, Soto, & Baezconde-Garbanati, 2007). Thus, future studies examining acculturation in adolescent populations should utilize the shorter version of the ARSMA-II that has recently been validated with the adolescent population (Bauman, 2005).

### **Implications and Future Directions**

Despite these limitations, the current study has several important implications. First, these findings indicate the importance of using bicultural, multidimensional measures of acculturation, as cultural orientation in each of these domains appears to have unique effects on adolescents' global self-worth and self-perceptions of competence. For example, engagement in practices and traditions associated with Latino culture and both Latino and mainstream U.S. cultures (i.e., biculturalism) predicted greater perceived competence regarding behavioral conduct in adolescents, and adherence to both mainstream U.S. cultural beliefs and bicultural values predicted greater global self-worth in adolescents. Interventions focused on improving adolescents' global self-worth may want to take a bicultural approach, encouraging adolescents to develop the skills to adopt or maintain values and beliefs from both mainstream U.S. culture and Latino culture. The mainstream U.S. cultural values may be especially important in maintaining high levels of global self-worth, but more research is needed on this subject. Additionally, programs aimed at improving adolescents' behavior should consider the positive impact that traditional Latino practices and traditions may have on adolescents' perceptions of behavioral conduct. However, future research is needed to determine which specific cultural values and practices have the most significant impact on adolescents'

psychosocial well-being, as well as the contextual factors (e.g., individual factors, family functioning, and SES) that influence adolescents' cultural identity development and acculturation strategies.

In addition to assessing acculturation, the current study's findings highlight the need for interventions aimed at improving Latino adolescents' global self-worth and perceptions of competence to assess acculturation risk factors (i.e., acculturation stress, acculturation conflict, and perceived ethnic discrimination). Results of the current study indicate that these acculturation risk factors have unique negative effects on adolescents' global self-worth and perceptions of competence across various domains (i.e., behavioral conduct, physical appearance, and social acceptance). Although all of these acculturation risk factors should be assessed in treatment, special attention should be paid to the incidence of acculturation conflict, as it appears to be dominant risk factor for low self-esteem and self-perceptions of competence. Finally, results from the current study indicate that the impact of acculturation conflict and perceived ethnic discrimination on global self-worth largely depends on adolescents' cultural orientation. In the context of acculturation conflict, low adherence to mainstream U.S. values and bicultural values are risk factors for low global self-worth. Additionally, perceived ethnic discrimination may have particularly negative effects on the global self-worth of adolescents with strong adherence to mainstream U.S. values, and acculturation conflict may be especially damaging towards global self-worth of adolescents who demonstrate high levels of engagement in bicultural practices. Given these possibilities, additional outreach is needed to target these adolescents, as they are more likely to experience the detrimental effects of acculturation conflict and perceived ethnic discrimination.

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