An Examination of Mexican American Adolescent and Adult Romantic Relationships

by

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ABSTRACT

This dissertation examined Mexican American individuals' romantic relationships within two distinct developmental periods, adolescence and adulthood. Study 1 used latent class analysis to explore whether 12th grade Mexican Americans' (N = 218) romantic relationship characteristics, cultural values, and gender created unique romantic relationship profiles. Results suggested a three-class solution: *higher quality, satisfactory quality, and lower quality romantic relationships.* Subsequently, associations between profiles and adolescents' adjustment variables were examined via regression analyses. Adolescents with *higher* and *satisfactory quality romantic relationships* reported greater future family expectations, higher self-esteem, and fewer externalizing symptoms than adolescents with *lower quality romantic relationships*. Similarly, adolescents with *higher quality romantic relationships* reported greater academic self-efficacy and fewer sexual partners than adolescents with *lower quality romantic relationships.* Finally, adolescents with *higher quality romantic relationships* also reported greater future family expectations and higher academic self-efficacy than adolescents with *satisfactory quality romantic relationships.* To summarize, results suggested that adolescents engaged in three unique types of romantic relationships with *higher quality* being most optimal for their adjustment. Study 2 used latent growth modeling to examine marital partners' (N = 466) intra- and inter-individual changes of acculturative stress, depressive symptoms, and marital quality. On average across the seven years, husbands' acculturative stress remained steady, but wives' significantly decreased; partners' depressive symptoms remained relatively steady, but their marital quality significantly decreased. Although partners' experiences of acculturative stress were less similar than their experiences of

depressive symptoms and marital quality, overall their experiences were interconnected. Significant spillover and crossover effects emerged between partners' initial levels of acculturative stress and depressive symptoms and between depressive symptoms and marital quality. Moreover, changes in husbands' depressive symptoms were negatively associated with changes in their marital quality. Overall, results suggested that partners' experiences were interconnected across time.

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Introduction

Some researchers believe that people are driven to develop and maintain stable interpersonal attachments with others, rooted in an inherent need to belong (Baumeister & Leary, 1995). Accordingly, over the past several decades researchers have increasingly studied romantic relationships (Clark & Lemay, Jr., 2010) focusing on various relationship processes (e.g., quality, commitment; Neff & Karney, 2004; Rusbult, 1983) with multiple populations (e.g., European American, African American; Cutrona et al., 2003; Voydanoff, 2004) at different points of the life span (e.g., adolescence, young adulthood; La Greca & Harrison, 2005; Meier & Allen, 2009). Despite the rapid growth of romantic relationship research with multiple populations and across various developmental periods, little is known about Mexican American individuals' romantic relationships. The Mexican American population has grown tremendously over the past forty years, recently accounting for 11% of all people living in the U.S. (Gonzalez-Barrera & Lopez, 2013) and representing nearly two-thirds of the broader U.S. Latino population (Motel & Patten, 2012). Thus, the following two studies examined Mexican American romantic relationships within two distinct developmental periods (i.e., adolescence, adulthood) within a large and growing, yet understudied population. Study 1 utilized latent class analysis to understand the complexity of 12th grade Mexican American adolescent romantic relationships by exploring whether unique profiles of romantic relationship characteristics, cultural values, and adolescent gender emerged and if so, whether they were distinctly related to adolescent adjustment. Study 2 utilized latent growth modeling to understand Mexican American marital partners' trajectories of acculturative stress, depressive symptoms, and marital quality across seven years by

examining whether partners' individual trajectories were similar and interrelated. Collectively, these two studies (a) contributed to a greater understanding of the complexity of romantic relationships within Mexican Americans at two distinct developmental periods, (b) provided information that may be useful to prevention and intervention relationship researchers, and (c) hopefully will motivate other romantic relationship scholars to explore new research directions.

Study 1: Exploring Mexican American Adolescents' Romantic Relationship Profiles and their Adjustment

Scholars once thought of adolescent romantic relationships as brief and frivolous having little impact on development (Collins, 2003), but today these relationships are considered a key developmental milestone being more prevalent and important than was initially thought (e.g., Collins, Welsh, & Furman, 2009). For instance, using a nationally representative sample of adolescents (Add Health, 1994), Carver and colleagues (2003) found that 55% of adolescents between the ages of 12 and 18 reported they were either currently in or had been in a romantic relationship during the past 18 months. Research has also suggested that both involvement in and characteristics of adolescent romantic relationships are related to adolescent mental health (e.g., Zimmer-Gembeck, Siebenbruner, & Collins, 2001), academic outcomes (e.g., Brendgen, Viatro, Doyle, Markiewicz, & Bukowski, 2002), and delinquency (e.g., Cui, Ueno, Fincham, Donnellan, & Wickrama, 2012). More important, romantic relationships are considered an important learning experience in preparing adolescents to successfully attain *intimacy* in young adulthood (Connolly & McIsaac, 2009) with evidence that adolescent romantic relationship characteristics (e.g., partner social support) predict romantic relationship characteristics in emerging adulthood (Seiffge-Krenke, 2003).

To understand the development of adolescent romantic relationship experiences, scholars have theorized that adolescent romantic relationships progress through stages and as adolescents mature their romantic experiences become more stable (Furman & Wehner, 1994). In support of this, Carver and colleagues (2003) found that 58% of 16 year olds reported having had the same romantic partner across a one to two year time

span, in comparison to 21% of adolescents younger than age 14. Collins (2003) suggested a five feature framework (i.e., involvement, partner selection, content, quality, cognitive and emotional processes) as a way to understand the complexity and significance of adolescent romantic relationship experiences on development; the current study focused on one of these five features: *quality* (i.e., the degree to which adolescent romantic relationships are advantageous as measured by characteristics such as intimacy). Collins also asserted that adolescent context and individual differences introduce variability to these experiences. In accordance with Collins' framework and at a time when adolescent romantic relationships are considered to be more stable (Furman & Wehner, 1994), the purposes of this study were to (a) explore whether unique romantic relationship profiles emerged from 12th grade Mexican American adolescents' romantic relationship characteristics (i.e., intimacy, satisfaction, monitoring, conflict, aggression), cultural values (i.e., familism values, traditional gender role values), and gender, (b) if so, to examine whether these profiles were distinctly associated with adolescents' adjustment in various domains (i.e., future family expectations, self-esteem, academic self-efficacy, externalizing and internalizing symptoms, number of sexual partners), and (c) make inferences about the overall *quality* of adolescents' romantic relationships (e.g., a relationship profile linked to more optimal adjustment would be considered healthier than a relationship profile linked with less optimal adjustment).

The Importance of Studying Mexican American Adolescents

Today, Mexican Americans account for nearly two-thirds of Latinos living in the United States, the largest ethnic minority group in the country (Motel & Patten, 2012). Although adolescent romantic relationship research has encompassed Latinos broadly

(e.g., La Greca & Harrison, 2005), few researchers have examined Mexican American adolescents specifically. That is, most have either compared Mexican American adolescent romantic relationships to non-Mexican American adolescent romantic relationships using qualitative research designs and smaller samples (e.g., Adams & Williams, 2011; Millbrath, Ohlson, & Eyre, 2009) *or* combined Mexican Americans with other Latin American subgroups (i.e., Cuban Americans, Puerto Ricans) to examine Latinos broadly with a focus on descriptive information (e.g., Carver et al., 2003) or risks associated with these relationships (i.e., dating violence, early sexual intercourse, teenage pregnancy; e.g., Bouris et al., 2012; Doğan-Ates & Carrión-Basham, 2007; Yan, Howard, Beck, Shattuck, & Hallmark-Kerr, 2010). More important, scholars have asserted the importance of studying cultural influences on adolescent romantic relationships (e.g., Collins et al., 2009; Connolly & McIsaac, 2009) with some researchers positing that Mexican American cultural values may be related to characteristics of these relationships (e.g., Millbrath et al., 2009); however, to date no researchers have empirically tested whether cultural values are associated with Mexican American adolescent romantic relationships.

Adolescent Romantic Relationships

Adolescent romantic relationships have been defined as continuous interactions that are mutually acknowledged (e.g., an adolescent likes a person and this person likes him/her in return), typically characterized by intense emotions often displayed by affectionate behaviors (e.g., kissing, hugging, sexual intercourse) making them distinct from platonic peer relationships (see Collins et al., 2009 for a review). Research seeking to understand the influence of adolescent romantic relationships on development has

varied in complexity from a focus on basic involvement (i.e., yes/no) to various relationship characteristics such as seriousness. The following section describes the diversity of research findings which have linked adolescent romantic relationships to development, the potential for Mexican American cultural values to be associated with adolescents' romantic relationships, and the utility of examining adolescent romantic relationships from a person-centered analytical approach.

Adolescent romantic relationships and development. Many researchers have examined whether adolescent romantic relationship involvement was associated with development. For example, in comparison to adolescents without romantic partners, adolescents with romantic partners reported lower social anxiety, a relationship that was found primarily for Latinos (La Greca & Harrison, 2005), less alienation, and higher positive self-perceptions and expectations of their success in school, work, relationships, and health (Ciairano, Bonino, Kliewer, Miceli, & Jackson, 2006). Similarly, adolescents with higher levels of dating experience (i.e., dating someone more than two months) reported higher perceptions of social acceptance, romantic appeal, and physical appearance than adolescents with lower levels of dating experience (Zimmer-Gembeck et al., 2001). Moreover, adolescents who were engaged in serious romantic relationships (characterized by having participated in multiple dating activities [e.g., exchanging gifts, meeting their partner's parents]) reported greater marital expectations than those who were not engaged in romantic relationships (Crissey, 2005). Researchers have found romantic relationship involvement to be linked to negative development as well. For instance, research has found that, in comparison to adolescents without romantic partners, those with romantic partners reported lower academic performance (for girls only;

Brendgen et al., 2002), increases in substance use over a one year period (Furman, Low, & Ho, 2009), greater externalizing symptoms (Hou et al., 2013), greater depressive symptoms (Hou et al., 2013; Vujeva & Furman, 2011), and a greater risk to engage in delinquent behaviors both concurrently and one year later (Cui et al., 2012). Similarly, researchers found that adolescents who were engaged in steady romantic relationships before age 16 reported having more sexual partners at age 19 than those who were not engaged in steady relationships before age 16 (after controlling for gender; Zimmer-Gembeck & Collins, 2008). In contrast, two researchers found that adolescent romantic involvement did not predict delinquency one year later (Elkund, Kerr, & Stattin, 2010) nor externalizing symptoms in adolescence and emerging adulthood (van Dulmen, Goncy, Haydon, & Collins, 2008). Because adolescent romantic relationship involvement has been associated with both negative and positive development with some conflicting findings, it is unclear whether simply having a romantic partner in adolescence is healthy versus unhealthy.

In attempts to better understand the significance of adolescent romantic relationship experiences, many researchers have moved away from simply examining romantic relationship involvement to studying the influence of romantic relationship characteristics on development. Although researchers have made great strides by moving in this direction, there is opportunity for improvement. Nonetheless, both positive (i.e., partner social support, relationship quality, security, satisfaction) and negative (i.e., psychological aggression, negative romantic partner interactions, verbal conflict) romantic relationship characteristics have been found to influence adolescent development in several domains (e.g., mental health, delinquency, academics).

Unsurprisingly, researchers mostly have found adolescent positive romantic relationship characteristics to be associated with optimal development with some researchers finding no relationships whatsoever. For example, Zimmer-Gembeck and colleagues (2001) found that adolescent romantic relationship quality (characterized by satisfaction, closeness, and ease of sharing with romantic partner) was positively associated with several adolescent psychosocial factors (i.e., social acceptance, romantic appeal, global self-worth), but unassociated with mental health and academic outcomes (Zimmer-Gembeck et al., 2001). Similarly, Masden and Collins (2011) created an overall romantic relationship quality score comprised of five relationship characteristics (i.e., conflict resolution, disclosure, enjoyment, intimacy, security) and found this to be positively associated with a similar overall young adult romantic relationship quality score comprised of six relationship characteristics (i.e., degree of willingness to express individual ideas freely, degree to which the relationship serves individual development, conflict resolution, overall quality, secure base, shared positive affect). Moreover, one researcher found positive associations between adolescent romantic partner social support and both adolescent self-concept and young adult bonded love (characterized by a close trusting relationship, high sexual attraction, and unafraid of becoming too close; Seiffge-Krenke, 2003). Similarly, researchers found a positive association between companionate love (characterized by acceptance, trust, unafraid of becoming too close, and few emotional extremes) and self-esteem for girls, but not for boys (Bucx & Seiffge-Krenke, 2010). Moreover, adolescent romantic relationship satisfaction was negatively associated with depressive symptoms and negative emotions (e.g., sad/withdrawn) both concurrently and two years later for girls, but not for boys (Ha, Dishion, Overbeek, Burk, & Engels,

2013). Additionally adolescent perceived relationship seriousness (characterized by exchanging gifts, verbal expressions of love, and thoughts of being a couple) was negatively associated with marijuana use one year following and into young adulthood (Gudonis-Miller et al., 2012). Similarly, researchers found a trending correlation between adolescent romantic relationship security (e.g., adolescents were free to be themselves, were willing to be vulnerable in front of romantic partner) and externalizing behaviors, such that greater relationship security was associated with fewer externalizing behaviors (van Dulmen et al., 2008). In contrast, another study found adolescent perceived importance of romantic relationship, intimate self-disclosure, and feelings of romantic love to be unassociated with delinquency (Giordano, Lonardo, Manning, & Longmore, 2010).

Researchers have also examined correlates of adolescent negative romantic relationship characteristics and, as expected, these characteristics were associated with less optimal development. For example, adolescent romantic partner negative interactions were found to be associated with higher social anxiety and depressive symptoms. The association between negative partner interactions and social anxiety emerged only for Latino adolescents, whereas the association between negative partner interactions and depression was stronger for European Americans than Latinos (La Greca & Harrison, 2005). Similarly, psychological aggression within a romantic relationship has been linked to greater depressive symptoms, whereas physical aggression was not (Jouriles, Garrido, Rosenfield, & McDonald, 2009). Researchers have also found verbal conflict within adolescent romantic relationships to be concurrently associated with greater delinquency (Giordano et al., 2010). This review highlighted the varied complexity and diversity of

empirical work that has sought to understand the significance of adolescent romantic relationship involvement and both positive and negative romantic relationship characteristics on development in adolescence and beyond.

To further advance adolescent romantic relationship research, the current study explored whether Mexican American adolescent positive and negative romantic relationship characteristics (i.e., intimacy, satisfaction, monitoring, conflict, aggression) generated unique patterns that would be distinctly associated with adolescents' adjustment in various domains (i.e., future family expectations, academic self-efficacy, self-esteem, internalizing and externalizing symptoms, number of sexual partners). Researchers have long recognized intimacy (e.g., Sternberg, 1986), satisfaction (e.g., Rusbult, 1980), conflict (e.g., Straus, 1979), and aggression (e.g., Straus, 1979) as key dimensions of romantic relationships. The growth of Social Networking Sites (e.g., Facebook) has afforded individuals the opportunity to track their romantic partner's (and vice versa) whereabouts and associations with little to virtually no intrusion. Thus, monitoring (i.e., tracking and surveillance; Stattin & Kerr, 2000) has more recently received greater attention within romantic relationship research (e.g., Fox & Warber, 2014). Researchers have found greater romantic partner monitoring to be positively associated with insecure romantic relationship attachment styles (Fox & Warber, 2014) and jealousy (Muise, Christofides, & Desmarais, 2013); however, it is unknown whether monitoring is consistently associated with negative romantic relationship characteristics (e.g., jealousy) and whether it is associated with outcomes outside of romantic relationships (e.g., future family expectations, internalizing symptoms). The current study was the first to explore monitoring within Mexican American adolescent romantic

relationships. It is important to note that the current study focused on adolescent adjustment variables that have been found to be associated with adolescent romantic relationship involvement or characteristics in previous research (e.g., marriage expectations [Crissey, 2005], self-esteem [Bucx & Seiffge-Krenke, 2010], academics [Brendgen et al., 2002], mental health [Ha et al., 2013], number of sexual partners [Zimmer-Gembeck & Collins, 2008]).

Mexican American adolescent cultural values, adjustment, and romantic relationship characteristics. Culture refers to a specific population's beliefs, practices, and traditions (Le et al., 2008; Rogoff, 2003). It is important to understand whether unique patterns of Mexican American adolescents' cultural values and romantic relationship characteristics are related to their adjustment. Two cultural values that have commonly been studied with Mexican Americans are familism and traditional gender role values. Familism values reflect the importance of family and are commonly characterized by feelings of support and obligation (Sabogal, Marín, Otero-Sabogal, Marín, & Perez-Stable, 1987). Mexican American adolescent familism values have been found to be associated with positive outcomes, including mental health (Fuligni & Pederson, 2002), educational aspirations (Fuligni, Tseng, & Lam, 1999), and academic self-efficacy along with school attachment (Vargas, Roosa, Knight, & O'Donnell, 2013). Traditional gender role values are broadly defined by the beliefs that women are primarily responsible for childrearing, managing household chores, and are thought of as more submissive, whereas men are responsible for making household decisions, being the sole provider, and are thought of as more powerful (Knight et al., 2010). One study found that traditional gender role values predicted greater risky behaviors and lower educational

expectations for Mexican American boys and less risky behaviors for Mexican American girls (Updegraff, Umaña-Taylor, McHale, Wheeler, & Perez-Brena, 2012).

Although several scholars have suggested that Mexican American cultural values may be associated with characteristics of adolescent romantic relationships (e.g., Milbrath et al., 2009), these hypotheses have not been tested empirically. In fact, the few researchers that examined Mexican American adolescent romantic relationships utilized mostly qualitative research designs, examined small samples, and focused on between-group differences. For example, Millbrath and colleagues (2009) interviewed adolescents to ask about their romantic relationship beliefs (e.g., "What are some reasons to be in a relationship?") and found that Mexican Americans scored higher on *cultural mores* represented by expressions of traditional cultural values (e.g., importance of family, respect) and *romantic care* represented by expressions of romantic relationship characteristics (e.g., commitment, love) than African Americans. These findings suggested that Mexican American adolescent cultural values may be associated with their romantic relationship beliefs and that experiencing healthy romantic relationships is important to them. Similarly, Williams and Hickle (2011) interviewed adolescents to gain insight on their perceptions regarding romantic relationship commitment. In comparison to European American adolescents, Mexican Americans reported greater negative emotions toward cheating and Mexican American girls initiated dialogues about cheating more than all other adolescents. These findings illustrated the value of commitment that Mexican American adolescents place on romantic relationships which may reflect their beliefs regarding the importance of family overall. Finally, researchers have suggested that Mexican American parents differentially socialize their daughters and sons with

respect to romantic relationships where girls' experiences are more restricted than boys' (e.g., Raffaeli, 2005, Raffaelli & Ontai, 2001). However, little is known about adolescents' traditional gender role values and whether they are associated with their romantic experiences. Thus, the current study examined whether adolescents' familism and traditional gender role values were associated with their romantic relationships.

Romantic relationship profiles. The current study used Mexican American adolescents' romantic relationship characteristics (both positive and negative), cultural values, and gender to explore whether these observed variables generated unique latent classes, what some researchers have referred to as a person-centered approach (Magnusson, 2003; Muthén & Muthén, 2000). In comparison to a variable-centered approach where the focus is on relationships among the variables of interest, a person-centered approach takes unobserved heterogeneity of a population into account by categorizing homogenous subtypes of people within this population into classes and moreover, focuses on the meaning or importance of differences in these classes (Muthén & Muthén, 2000). A person-centered approach to studying adolescent romantic relationships may better illustrate the complexity of adolescent romantic relationships and if unique classes (i.e., profiles) do exist, researchers can examine whether they are distinctly related to adolescent development. Hypothetically, an adolescent romantic relationship profile comprised of more positive romantic relationship characteristics than negative ones would be related to optimal development, whereas a profile comprised of more negative romantic relationship characteristics than positive ones would be related to less optimal development, albeit more complex profiles could also emerge (i.e., some individual characteristics could be more influential than others). For example, an

adolescent romantic relationship profile comprised of higher intimacy and familism values paired with lower conflict may be positively related to future family expectations and negatively related to number of sexual partners. Moreover, because gender differences have been found in both adolescent romantic relationship characteristics (e.g., La Greca & Harrison, 2005; Seiffge-Krenke, 2003) and Mexican American adolescent cultural values (e.g., Updegraff et al., 2012), gender was included as an indicator when generating Mexican American adolescent romantic relationship profiles.

The Current Study

In line with Collins' (2003) organizational framework for understanding the complex associations between adolescent romantic relationship features *and* at a developmental stage when these relationships are typically more stable (Furman & Wehner, 1994), the first goal of this study was to understand whether unique patterns emerged from 12th grade Mexican American adolescents' romantic relationship characteristics (both positive and negative), cultural values, and gender by using Latent Class Analysis (LCA). Given this study's exploratory nature, no hypotheses were made about the exact number of profiles that would emerge. The second goal of this study was to examine whether these romantic relationship profiles were distinctly related to adolescent adjustment. The third and final goal of this study was to make empirical inferences about the overall *quality* of Mexican American adolescent romantic relationships.

Method

Participants

Data for this study came from a longitudinal study that investigated the impact of culture and context on the adaptation of 749 Mexican American families who resided in a Southwestern metropolitan area (Roosa et al., 2008). Because the focus of this study was to examine adolescent romantic relationships, the current study used data from the fourth wave (T4) of data collection and only from adolescents (*M* age = 17.86; *SD* = .45) who reported being in a romantic relationship and answered questions about their current romantic partner; this was 35% of the T4 sample (*n* = 218). Fifty-four percent of these adolescents were female, 98% completed the interview in English, and 74% were born in the United States. The majority (71%) lived in two-parent households with a median family income between $30,001 and $35,000.

Procedure

Purposive and random sampling techniques were used to identify 47 schools (i.e., public, charter, religious) representing the diverse neighborhoods in which Mexican American families resided. English and Spanish recruitment packets were sent home with every fifth-grade child in all 47 schools. On average, families returned 86% of the forms. Interested families with a Latino surname were contacted for eligibility screening. Eligibility requirements included: child attending the school; mother and child agreed to participate; mothers and fathers were the child's biological parents; the mother, father, and child were of Mexican descent; and the child was not severely learning disabled. Next, families were contacted to schedule an interview time. Of the 1,025 families that were recruited and eligible for participation, 73% participated (*N* = 749).

Prior to data collection, interviewers completed 40 hours of training; all interviewers were bicultural and most were bilingual. Data for this study were collected from two cohorts of adolescents in 2011-2013 using computer assisted personal interviews which occurred at either participants' home or over the telephone. In compliance with the University's Institutional Review Board, interviewers read and explained the consent and assent forms and answered participants' questions before the interview began. Immediately after signing the consent and assent forms, each participating family member was given $60 as a participation incentive. Parents and adolescents were interviewed out of hearing range of each other in their preferred language (English or Spanish) and on average, interviews lasted two and a half hours. Interviewers read each question aloud to control for variations in literacy.

Measures

Family background information. Parents provided information on family annual household income; adolescents reported their age, language preference, and nativity.

Latent class analysis indicators. Intimacy, satisfaction, monitoring, conflict, aggression, familism values, traditional gender role values, and gender were examined as LCA indicators.

***Romantic relationship intimacy*.** Adolescents rated their relationship intimacy with their current romantic partner using seven items (α = .85) adapted from Blythe and colleagues (Blyth & Foster-Clark, 1987; Blyth, Hill, & Thiel, 1982). This scale assessed acceptance, understanding, sharing feelings, and advice seeking (e.g., "How much do you share your inner feelings or secrets with *name of partner*?") with responses ranging from

1 = *not at all* to 5 = *very much*. Higher scores indicated greater romantic relationship intimacy. This scale has been found reliable and valid for Mexican American adolescents (e.g., Davidson, Updegraff, & McHale, 2011).

***Romantic relationship satisfaction*.** Adolescents rated their romantic relationship satisfaction with their current romantic partner using six items (α = .72) adapted from the Relationship Assessment Scale (Hendrick, 1988; e.g., "In general, how happy are you with your relationship?"). Participants responded to items one and four with answers ranging from 1 = *all of the time* to 5 = *never*; two with an answer ranging from 1 = *very happy* to 5 = *very unhappy*; three and five with answers ranging from 1 = *much better* to 5 = *much worse*; and six with an answer ranging from 1 = v*ery much* to 5 = *not at all*. Items one, two, three, five, and six were reverse coded; higher scores indicated greater romantic relationship satisfaction.

***Romantic relationship monitoring*.** Adolescents rating their relationship monitoring with their current romantic partner using five items (α = .83; e.g., "How much does *name of partner* know about where you go at night?") items adapted from the parental monitoring scale (Small & Kerns, 1993) with responses ranging from 1 = *not at all* to 5 = *everything.* Higher scores indicated greater romantic relationship monitoring.

***Romantic relationship conflict*.** Adolescents rated their conflict with their current romantic partner using the Network Relationship Inventory (Furman & Buhrmester, 1985). The current study used the conflict subscale (five items [α = .88]; e.g., "How much do you and *name of partner* get upset or mad at each other?") with responses ranging from 1 = *not at all* to 5 = *very much.* Higher scores indicated greater romantic

relationship conflict. This scale has been found reliable and valid for Mexican American adolescents (e.g., Thayer, Updegraff, & Delgado, 2008).

***Romantic relationship aggression*.** Adolescents rated aggression in their current romantic relationship using six items (α = .77) that were adapted from The Revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). This scale assessed psychological and physical aggression (e.g., How much do you and *name of partner* get angry and shout at each other?") with responses ranging from 1 = *not at all* to 5 = *very much*. Higher scores indicated greater psychological and physical aggression. This scale has been found reliable and valid for Mexican Americans (e.g., Straus, 2004).

***Cultural values*.** Adolescents rated their cultural values with Mexican American Cultural Values Scale (MACVS; Knight et al., 2010). The current study used the familism values subscales (support and emotional closeness [6 items; "It is important for family members to show their love and affection to one another"], family obligations [5 items; "Children should be taught that it is their duty to care for their parents when their parents get old"], and family as referent [5 items; "Children should always be taught to be good because they represent the family"]) to compute a total familism values score (α = .86) and the traditional gender role values subscale score (α = .75; e.g., "It is important for the man to have more power in the family than the woman."). Responses ranged from 1 = *not at all* to 5 = *completely*. Higher scores indicated greater cultural values. The authors of this scale have found it to be reliable and valid for Mexican American adolescents.

Adolescent adjustment. Future family expectations, self-esteem, academic self-efficacy, externalizing and internalizing symptoms, and number of sexual partners were examined to assess adolescents' adjustment in these domains.

***Future family expectations*.** Adolescents reported their expectations about having a family in the future using three items (α = .76; e.g., "How sure are you that you will get married?") adapted from the future expectations scale (Wyman, Cowen, Work, & Kerley, 1993) with responses ranging from 1 = *not at all sure* to 5 = *very much sure.* Higher scores indicated greater future family expectations.

Self-esteem. Adolescents reported on their self-esteem using Rosenberg's Self-Esteem Scale (Rosenberg, 1979). This measure was comprised of ten items (α = .85; e.g., "I am able to do things as well as most other people.") with responses ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Higher scores indicated greater self-esteem. This scale has been found reliable and valid for Mexican American adolescents (e.g., Umaña-Taylor, Gonzales-Backen, & Guimond, 2009).

Academic self-efficacy. Adolescents reported their academic self-efficacy using six items (α = .87) from the Patterns of Adaptive Learning Survey (Midgley, Maehr, & Urdan, 1996; Arunkumar, Midgley, & Urdan, 1999). This scale measured adolescent schoolwork mastery beliefs (e.g., "You can do even the hardest schoolwork if you try"), with responses from 1 = *not at all true* to 5 = *very true*. Higher scores indicated greater academic self-efficacy.

Externalizing and internalizing symptoms. Mothers and adolescents independently reported on adolescent mental health from the computerized version of the Diagnostic Interview Schedule for Children (DISC-IV; Shaffer, Fisher, Lucas, Dulcan, &

Schwab-Stone, 2000). Externalizing symptoms were computed by summing the conduct, attention deficit/hyperactivity, and oppositional defiant disorders symptom counts. Internalizing symptoms were computed by summing the anxiety and mood disorders symptom counts. A combined mother and adolescent DISC scoring algorithm was used to obtain symptom counts with previous work suggesting that that the combined algorithm is a better choice than any single-informant DISC algorithm (Shaffer et al., 2000). This measure is reliable and valid for Spanish speaking populations (Bravo, Woodbury-Fariña, Canino, & Rubio-Stipec, 1993).

Number of sexual partners. Adolescents reported the number of sexual partners they had within the past year with the question "In the past 12 months, how many different sexual partners have you had?"

Results

Romantic Relationship Profiles

To attain the first goal of this study, a series of five LCAs were computed in Mplus 7.1 (Muthén & Muthén, 1998-2013). The goal of LCA is to determine if heterogeneity within a population can be explained by examining whether observed indicators (either categorical, continuous, or a mixture of both) generate unique latent classes (i.e., profiles) based upon similarities among the indicators (Collins & Lanza, 2010). The present study explored whether unique profiles of Mexican American adolescent romantic relationships emerged based upon similarities in their romantic relationship characteristics, cultural values, and gender. Analyses proceeded in a series of steps whereby a one-class solution was initially modeled with the number of classes increased by one thereafter. The best-fitting solution was determined by the

interpretability of the solution, class sample size, the Bayesian Information Criteria (BIC; Schwarz, 1978), the sample size-adjusted BIC (aBIC; Sclove, 1987), and the Lo-Mendell-Rubin (LMR; Lo, Mendell, & Rubin, 2001). A model with lower BIC and aBIC values fits better than a model with higher BIC and aBIC values (Lubke & Muthén, 2005) and when the LMR test has a *p* value less than .05 this suggests that the model with *k* (i.e., number) classes fits better than the *k* – 1 class model (Asparaouhov & Muthén, 2012). These fit indices have been shown to be reliable for selecting the number of classes (Nyland, Asparouthov, Muthén, 2007; Tein, Coxe, Cham, 2013; Tofighi & Enders, 2007). To avoid local maxima and to ensure that the best loglikelihood values were replicated, analyses were computed in a stepwise fashion following procedures recommended by Asparaouhov and Muthén (2012). That is, to ensure that the best set of estimates were found for the current data (Flaherty & Kiff, 2012), each class solution was first run with STARTS = 20 4, second with STARTS = 100 20, third with STARTS = 200 40, and fourth with STARTS = 0 using the OPTSEED command along with the request for the LMR test. Once the best-fitting solution was determined, adolescents were assigned their most likely latent class membership representing their romantic relationship profile. Most LCA indicators had complete data (i.e., intimacy, satisfaction, monitoring, familism and traditional gender role values, gender) whereas conflict and aggression were missing 6%. Missing data were handled with full information maximum likelihood (FIML) using the EM (expectation–maximization) algorithm (Enders, 2010).

An assumption of LCA is that the associations between the observed indicators are explained by the latent classes (i.e., local independence; Collins & Lanza, 2010), thus observed indicators were not allowed to correlate within classes. Moreover, variances and

means were allowed to be free across latent classes. Fit statistics and LMR results for the series of LCAs suggested that the three-class solution was the best fitting solution (Table 1). Specifically, the LMR test for the four-class solution was greater than .05 and from the three- to the four-class solution the change in the BIC increased. Although the change in the aBIC decreased, it was not as large as the change in the aBIC from the two- to the three-class solution. Moreover, class sample sizes for the three-class solution were adequate (i.e., no class sample size was smaller than 23.4%). Thus, the three-class solution was chosen as the best-fitting solution.

Indicator means and standard deviations for the sample and three-class solution are presented in Table 2. Wald tests were computed to examine whether indicator means were significantly different from one another between profiles where *p* less than .05 indicated a significant difference. Effect sizes (Cohen's *d*; Cohen, 1988) for mean differences between profile indicator means are presented in Table 3. Due to the small class sample sizes, corrections were applied to effect sizes (Hedges & Olkin, 1985). Indicator means for the three-class solution are plotted in Figure 1. The first latent class included a little less than a quarter of the total sample (23.4%). In comparison to the overall sample, these adolescents reported: (a) above average intimacy, satisfaction, and familism values; (b) average conflict and traditional gender role values; and (c) below average aggression. This profile was referred to as *higher quality romantic relationships*. The second latent class included a little more than half of all adolescents (51.4%). In comparison to the entire sample, these adolescents reported average intimacy, satisfaction, monitoring, and familism values and below average conflict, aggression, and traditional gender role values. This profile was referred to as *satisfactory quality*

romantic relationships. The third latent class included about a quarter of all adolescents (25.2%). In comparison to the overall sample, these adolescents reported: above average conflict, aggression, and traditional gender role values; (b) average familism values; and (c) below average intimacy, satisfaction, and monitoring. This profile was referred to as *lower quality romantic relationships.* Moreover, being male decreased adolescents' odds of being classified in both the *higher* and *satisfactory quality romantic relationship* profiles than in the *lower quality romantic relationship* profile by 26% (OR = .74, CI [.30, 1.85], $p < .05$) and 33% (OR = .67, CI [.32, 1.44], $p < .05$), respectively. In contrast, being male increased adolescents' odds of being classified in the *higher quality romantic relationship* profile than in the *satisfactory quality romantic relationship* profile by 10% (odds ratio [OR] = 1.10, 95% confidence interval [CI; .46, 2.66], $p < .05$).

Romantic Relationship Profiles and Adjustment

To attain the second goal of this study, adolescents were first assigned to their most likely latent class based on the three-class solution (i.e., profile) and second, the associations between profiles and adolescent adjustment variables were examined. Using Mplus 7.1 (Muthén & Muthén, 1998-2013), adolescent future family expectations, self-esteem, academic self-efficacy, externalizing and internalizing symptoms, and number of sexual partners were simultaneously regressed on adolescents' most likely latent class as if it were an observed variable. According to Clark and Muthén (2009) treating latent classes as observed is appropriate provided entropy is greater than .80; entropy for the three-class solution was .86. Several of the adjustment variables had complete data (i.e., self-esteem, externalizing and internalizing symptoms), but future family expectations (13% missing), academic self-efficacy (12% missing), and number of sexual partners

(30% missing) did not. To handle missing data, parameters were estimated using full information maximum likelihood (Enders, 2010). Descriptive statistics for study variables are presented in Table 4 and simultaneous regression results are presented in Table 5. Model 1 used *lower quality romantic relationships* as the reference group and Model 2 used *satisfactory quality romantic relationships* as the reference group. Results indicated that adolescents with *higher* and *satisfactory quality romantic relationships* reported greater future family expectations, higher self-esteem, and fewer externalizing symptoms than those with *lower quality romantic relationships*. Similarly, adolescents with *higher*, but not those with *satisfactory quality romantic relationships*, reported greater academic self-efficacy and fewer sexual partners than those with *lower quality romantic relationships* (Table 5, Model 1). Moreover, adolescents with *higher quality romantic relationships* reported greater future family expectations and higher academic self-efficacy than those with *satisfactory quality romantic relationships* (Table 5, Model 2).

Discussion

Guided by Collins' (2003) organizational framework for understanding the complex associations between adolescent romantic experiences and adjustment, this study employed a person-centered analytic technique (e.g., Muthén & Muthén, 2000) at a developmental period when adolescent romantic relationships are considered to be relatively more stable (Furman & Wehner, 1994) to better understand the overall *quality* of 12th grade Mexican American adolescents' romantic relationships. Specifically, the current study explored whether adolescents' romantic relationship characteristics, cultural values, and gender created unique latent classes (i.e., profiles) and if so, whether their

romantic relationship profiles were distinctly associated with their adjustment in various domains. Three unique romantic relationship profiles emerged with the majority of adolescents having *satisfactory quality romantic relationships.* Profiles differed from one another in relationship characteristics, cultural values, and adolescent gender and were also distinctly related to adolescent adjustment. Overall, results suggested *higher quality romantic relationships* were most healthy whereas *lower quality romantic relationships* were least healthy.

Romantic Relationship Profiles

Through an examination of adolescents' indicators representing key dimensions of their romantic relationships, cultural values, and gender via latent class analysis, results indicated three unique romantic relationship profiles: *higher quality, satisfactory quality, and lower quality.* A little less than a quarter of adolescents (23.4%) were classified as having *higher quality romantic relationships* characterized by the highest levels of intimacy, satisfaction, and monitoring. The majority of adolescents (51.4%) were classified as having *satisfactory quality romantic relationships* characterized by about average levels of intimacy, satisfaction, and monitoring. Also, adolescents with *satisfactory quality romantic relationships* were less likely to be male than those with *higher quality romantic relationships.* Finally, nearly a quarter of adolescents (25.2%) were classified as having *lower quality romantic relationships* characterized by the lowest levels of intimacy, satisfaction, and monitoring as well as the highest levels of conflict and aggression. Adolescents with *lower quality romantic relationships* were more likely to be male than those with both *higher* and *satisfactory quality romantic relationships.* Notably, in contrast to researchers who found romantic partner monitoring

to be associated with negative relationship characteristics (i.e., jealousy, insecure attachment styles; e.g., Fox & Warber, 2014; Muise et al., 2013), monitoring in the current study was associated with healthier romantic relationships. In contrast to prior studies (i.e., Fox & Warber, 2014; Muise et al., 2013), the current study used a broader measure of monitoring that was not related to a specific context (i.e., electronic monitoring) which may be one reason for the contrasting findings. Future research might take a multidimensional approach in examining how these three variables are associated with other romantic relationship characteristics (e.g., intimacy, satisfaction, conflict) to determine their unique contributions to the overall *quality* of adolescent romantic relationships.

Because the three romantic relationship profiles significantly differed from one another with respect to relationship characteristics, cultural values, and gender, this study provided strong evidence of significant within-group variations for Mexican American adolescent romantic relationships. For example, in comparison to adolescents with *lower quality romantic relationships*, those with *higher quality romantic relationships*: (a) reported higher intimacy, satisfaction, monitoring, and familism values; (b) reported lower conflict and aggression; and (c) were less likely to be male. Adolescents' cultural values provided some insight regarding these differences overall. Specifically, Millbrath and colleagues (2009) suggested that Mexican American adolescent traditional cultural values (e.g., importance of family) were associated with features of romantic relationships (e.g., commitment, love) that adolescents regarded as important. Relatedly, Williams and Hickle (2011) found that Mexican American adolescents valued romantic relationship commitment more than non-Mexican Americans, something they posited to

be associated with familism values. For these reasons, it can be hypothesized that in comparison to adolescents with lower familism values, adolescents with higher familism values may have a stronger desire to have a family of their own someday, thus they place greater importance on engaging in healthy romantic relationships.

As a second example of within-group variations for adolescents' romantic relationships, significant differences also emerged between *satisfactory* and *lower quality romantic relationships.* That is, in comparison to adolescents with *lower quality romantic relationships,* those in *satisfactory quality romantic relationships*: (a) reported higher intimacy, satisfaction, and monitoring; (b) reported lower conflict, aggression, and traditional gender role values; and (c) were less likely to be male. Overall, it appears that adolescent gender helped explain these differences. For example, previous research has indicated that in comparison to girls, adolescent boys reported lower levels of romantic partner social support (Seiffge-Krenke, 2003), higher negative relationship qualities (e.g., conflict; La Greca & Harrison, 2005), and higher traditional gender role values (Lorenzo-Blanco et al., 2012). Given that adolescents with *lower quality romantic relationships* were more likely to be male than those with both *higher* and *satisfactory quality romantic relationships,* it might have seemed as though Mexican American adolescent males were not engaged in healthy romantic relationships; however, this was not the case. For instance, in comparison to adolescents with *satisfactory quality romantic relationships*, those with *higher quality romantic relationships* reported higher intimacy, satisfaction, and monitoring *and* were more likely to be male. No significant differences emerged in conflict, aggression, familism values, or traditional gender role values between the two profiles. To summarize, the differences in relationship characteristics, cultural values, and

gender between the three profiles provided evidence of within-group variations in Mexican American adolescents' romantic relationships. More important, within adolescents' current romantic relationship contexts, higher familism values appeared to be a resource given they were a distinguishing cultural characteristic between *higher* and *lower quality romantic relationships.*

Romantic Relationship Profiles and Adjustment

Given the unique patterns of relationship characteristics, cultural values, and gender between the three profiles, it was of interest to understand whether profiles were distinctly associated with adolescent adjustment. The current study was exploratory in that the specific patterns or number of romantic relationship profiles that would emerge was not initially hypothesized; however, it was expected that a profile comprised of more positive relationship characteristics and less negative ones would be associated with optimal adjustment. In contrast, it was expected that a profile comprised of more negative relationship characteristics and less positive ones would be associated with less optimal adjustment. Unsurprisingly, adolescents with *higher quality romantic relationships* experienced the most optimal adjustment. Specifically, adolescents with *higher quality romantic relationships* reported: (a) greater future family expectations, (b) higher self-esteem and academic self-efficacy, and (c) fewer externalizing symptoms and sexual partners than those with *lower quality romantic relationships;* they also reported greater future family expectations and higher academic self-efficacy than adolescents with *satisfactory quality romantic relationships.* Moreover, adolescents with *satisfactory quality romantic relationships* reported greater future family expectations, higher self-

esteem, and fewer externalizing symptoms than adolescents with *lower quality romantic relationships*.

Similar to previous findings (Crissey, 2005), adolescents with *higher quality romantic relationships* reported greater future family expectations than adolescents with both *satisfactory* and *lower quality romantic relationships.* Because adolescents with *higher quality romantic relationships* reported the highest positive relationship characteristics, familism values, *and* future family expectations, one can speculate that they may become married and have children earlier than adolescents with *satisfactory* and *lower quality romantic relationships.* This hypothesis could be tested using the current romantic relationship profiles and, if supported, would indicate that Mexican American adolescent familism values *within the contexts of adolescents' previous healthy romantic relationships* were associated with their family formation.

Also aligned with previous research (i.e., Bucx & Seiffge-Krenke, 2010), adolescents with both *higher* and *satisfactory quality romantic relationships* reported higher self-esteem than those with *lower quality romantic relationships.* This highlights that healthier romantic relationships are positively associated with self-esteem. Although previous researchers have found adolescent romantic relationship satisfaction to be negatively associated with depressive symptoms (for girls only; Ha et al., 2013) and negative romantic partner interactions to be positively associated with depressive symptoms (an association that was found to be stronger for European Americans than Latinos; La Greca & Harrison, 2005), the current study found no differences in internalizing symptoms among the three romantic relationship profiles. In comparison to prior studies (i.e., Ha et al., 2013; La Greca & Harrison, 2005), the current study's

approach to examining the associations between adolescents' romantic relationships and their adjustment in various domains was multidimensional and person-centered (i.e., profiles) versus simpler and variable-centered and this may be one reason for the contrasting findings.

Although previous researchers have found engagement in romantic relationships to be associated with lower academic performance (for girls only; Brendgen et al., 2002), greater externalizing symptoms (Hou et al., 2013), and more sexual partners (for those who had a serious relationship before age 16; Zimmer-Gembeck & Colins, 2008), the current study's results illustrated a different story. First, adolescents with *higher quality romantic relationships* reported greater academic self-efficacy than those with both *satisfactory* and *lower quality romantic relationships.* This highlights that healthier romantic relationships were positively associated with academic adjustment. Notably, those with *higher quality romantic relationships* also reported highest familism values, a finding that is consistent with research which has positively linked Mexican American adolescents' familism values to their academic adjustment (e.g., Fuligni et al., 1999; Vargas et al., 2013). Second, adolescents with both *higher* and *satisfactory quality romantic relationships* reported fewer externalizing symptoms than those with *lower quality romantic relationships.* This demonstrated that overall healthier adolescent romantic relationships were negatively associated with externalizing symptoms. Third, adolescents with *higher quality romantic relationships* reported fewer sexual partners than those with *lower quality romantic relationships.* Because adolescent familism values were a distinguishing cultural characteristic between these two profiles, perhaps adolescents who were more family oriented place greater importance on having one

romantic partner instead of several. Previous qualitative research findings provide some evidence for this; in comparison to European American adolescents, Mexican American adolescents discussed relationships that were characterized by higher levels of commitment and investment (Williams & Adams, 2013). To summarize, previous scholars have suggested that associations between adolescents' romantic relationships and their development are complex (e.g., Collins, 2003) and the current study's results further underscored this. Instead of making comparisons between adolescents who were engaged in romantic relationships versus those who were not as some previous researchers did (e.g., Brendgen et al., 2002; Hou et al., 2013), the current study used a multidimensional approach and found adolescents' romantic relationships to be unique in overall *quality* and to have distinct associations with adolescents' adjustment in various domains.

Implications and Future Directions

Adolescent romantic relationships are considered an important developmental milestone (Collins et al., 2009) and are an important first step that adolescents take toward successfully attaining *intimacy* in young adulthood (Connolly & McIsaac, 2009). Although research has generally supported that positive romantic relationship characteristics are associated with optimal adjustment whereas negative ones are associated with less optimal adjustment, whether there were unique patterns of romantic relationships that were distinctly associated with adolescent adjustment was unknown. With a diverse sample of Mexican American adolescents, the current study identified unique romantic relationship profiles that were distinctly associated with adolescent's adjustment in various domains. Adolescents were classified into one of three profiles:

higher quality, *satisfactory quality*, or *lower quality*. Adolescents with *higher quality romantic relationships* experienced the most optimal adjustment; adolescents with *satisfactory quality romantic relationships* experienced the second most optimal adjustment; finally, adolescents with *lower quality romantic relationships* experienced the least optimal adjustment.

With respect to prevention, researchers should seek to better understand predictors of these unique romantic relationship profiles and, in particular, predictors of classification into *lower quality romantic relationships* because these adolescents (who are more likely to be male) were at greatest risk for experiencing externalizing symptoms. Zeiders, Roosa, Knight, and Gonzales (2013) recently identified that Mexican American early adolescents experienced unique risk contexts which were distinctly associated with their mental health prospectively. Thus, researchers should consider how risk contexts in early adolescence may directly and/or indirectly predict romantic relationships in later adolescence. Moreover, because recent research with Mexican Americans has found greater peer competence in middle-adolescence to be associated with positive romantic relationship characteristics in later adolescence (Moosmann & Roosa, under review), it seems as though intervening to bolster peer competence earlier on may help with successfully maintaining healthy romantic relationships in the future. Given the differentiation by adolescent familism values between *higher quality romantic relationships* and *lower quality romantic relationships*, encouraging Mexican American families to bolster/maintain their familism values may be another mode of intervention. Overall, the current study's findings provide ideas for future research as well as guidance for developing culturally appropriate interventions for Mexican American families.

Limitations, Strengths, and Summary

The current study was not without limitations. Although the current study employed an innovative analytic technique to explore whether unique patterns of Mexican American adolescent romantic relationships emerged, one must consider that these profiles and their distinct associations with adolescents' adjustment in various domains were relative to one another and might be unique to the current sample, something that cannot be tested. For instance, *lower quality romantic relationships* were characterized by low intimacy, satisfaction, and monitoring as well as high conflict and aggression where "low" and "high" were determined relative to the rest of the current sample. Thus, this study's findings need to be replicated with other samples. Moreover, the associations between romantic relationship profiles and adolescents' adjustment variables were examined cross-sectionally and thus causal inferences could not be made. That is, there is no way to determine whether adolescents who are overall well-adjusted select into healthier romantic relationships *or* if adolescents with healthier romantic relationships become well-adjusted. Similarly, profiles depicted adolescents' romantic relationships with their *current* romantic partner and it was unknown whether adolescents would be classified into the same profile with a new romantic partner; this could be examined in future research using latent transition analysis.

Despite the current study's limitations, it had several strengths. Instead of comparing Mexican Americans adolescents to non-Mexican American adolescents, the current study examined within-group variations of romantic relationship quality. Moreover, as opposed to providing solely descriptions of relationships (i.e., age of first relationship) or exclusively focusing on risks (e.g., dating violence), the current study

used an innovative person-centered analytic technique to examine both positive and negative romantic relationship characteristics, cultural values, and gender to determine whether unique romantic relationship profiles emerged that were distinctly associated with adolescent adjustment. Although many researchers have posited the importance of studying cultural values when examining Mexican American adolescents' romantic relationships, this was the first study to examine these associations quantitatively. Overall, this study significantly contributed to adolescent romantic relationship research by (a) providing evidence of within-group variations of 12th grade Mexican American romantic relationships without solely focusing on risks of these relationships, (c) using a more robust analytic approach than has been used in previous research to better understand the complex associations between adolescents' romantic relationships and their cultural values, and (c) being able to make empirical inferences with respect to the overall *quality* (e.g., Collins, 2003) of Mexican American adolescents' romantic relationships.

Study 2: Longitudinally Examining Mexican American Marital Partners' Acculturative Stress, Depressive Symptoms, and Marital Quality

There is long standing evidence that increased stress levels are associated with reports of decreased marital quality (e.g., Neff & Karney, 2004; Bodenmann, Ledermann, & Bradbury, 2007). Both cross-sectional and longitudinal studies have examined the influences of both external (e.g., Bodenmann et al., 2007; Ledermann, Bodenmann, Rudaz, & Bradbury, 2010; Neff & Karney, 2004; 2007) and internal (e.g., Bodenmann et al., 2007; Ledermann et al., 2010) stressors on marital quality including minor hassles (e.g., work stress, trouble with neighbors, social obligations) and acute events (e.g., death of a family member, separation from a partner). Most researchers have examined the effects of several combined stressors (i.e., cumulative stress) on marital quality instead of examining how one specific stressor is related to marital quality; however, understanding the relationship between a specific stressor and marital quality may be especially important for some populations as well as for intervention efforts. For example, acculturative stress refers to negative experiences related to the process of acculturation (Berry & Annis, 1974); as individuals adapt to a new culture or minorities learn to cope in a culture dominated by another cultural group, they may experience stress as a result of pressures to become competent in the English language or learn how to interact successfully in two cultures. Research with Mexican Americans individuals has found that acculturative stress predicted greater depressive symptoms (White, Roosa, Weaver, & Nair, 2009) and depressive symptoms negatively impacted marital quality (Nair, Roosa, Tanaka, Knight, & Tien, under review); however, no studies have examined the

relationship between acculturative stress and marital quality with Mexican American marital partners across time.

Because acculturation is a process and marital quality is not a static variable, researchers must examine the relationship between acculturative stress and marital quality longitudinally to obtain useful information. Moreover, to advance theory and provide guidance to prevention efforts, researchers need to know if the changes in these constructs are related to one another and, if so, whether this relationship is direct or indirect; that is, this relationship could emerge through a third construct (i.e., depressive symptoms). Thus, the primary goal of this study was to examine a diverse sample of Mexican American marital partners' intra- and inter-individual changes across seven years of three constructs that have been shown to significantly impact the lives of Mexican American families: acculturative stress, depressive symptoms, and marital quality (e.g., Leidy et al., 2009; Nair et al., under review; Umaña-Taylor & Alfaro, 2009). Because data were available from each partner (i.e., dyadic data), an advantage was examining both spillover effects (i.e., the relationship between an individual's stress levels and their outcomes [Bolger, DeLongis, Kessler, & Wethington, 1989]) and crossover effects (i.e., the relationship between an individual's stress levels and their partner's outcomes [Larson & Alemeida, 2003]) of these relationships.

Studying Marital Quality Longitudinally with Mexican Americans

It is important to understand how changes in acculturative stress across time influence Mexican American partners' marital adaptation for several reasons. First, Latinos are the largest ethnic minority group in the United States with Mexican Americans accounting for nearly two-thirds of these Latinos (Motel & Patten, 2012).

Second, 52% of Mexican American households in the United States are comprised of married couples with 33% having children compared to 51% and 20% for European Americans and 27% and 12% for African Americans (American Community Survey, 2011). Given that the experience of acculturative stress for Mexican American marital partners could potentially have cascading effects influencing the larger family context (e.g., parenting behaviors, child outcomes) through individual variables (e.g., depressive symptoms, marital quality), it is important to study marital adaptation related to acculturative stress within this population more thoroughly. Although most research on acculturative stress has focused on individual adult adaptation (Umaña-Taylor & Alfaro, 2009), one study (i.e., Leidy et al., 2009) examined the relationship between acculturative stress and marital quality with Mexican Americans specifically. Further, no studies have examined whether Mexican American individuals' acculturative stress influences their own and partners' marital adaptation across time. By examining these relationships dyadically and longitudinally, prevention and intervention researchers will be better informed to make culturally appropriate decisions when working with this growing population.

A Dyadic Family Systems Model

More recently researchers have begun to disentangle the complexity of marital relationships through the use of more sophisticated methodological designs. For example, when studying marital interactions researchers sometimes include both partners and this is commonly known as a dyadic research design (Gonzalez & Griffin, 1999). Dyadic data are non-independent from one another (i.e., correlated) and ignoring this can bias significance testing (Kenny, 1996). Thus, researchers have employed statistical

procedures for reducing this clustering problem; however, some scholars have argued that instead of *fixing* interdependence, researchers should incorporate these parameters into their models (Gonzalez & Griffin, 2012). By examining interdependence instead of ignoring it, researchers will learn whether individuals' experiences and adaptation are interrelated. For example, longitudinally examining spillover and crossover effects may help researchers learn if a stressor outside of the marriage such as acculturative stress influences characteristics of the marriage such as marital quality within and across partners. Thus, researchers will have a clearer understanding of these complex relationships and will be better equipped to inform prevention and intervention efforts.

From a theoretical perspective, interdependence is rooted in family systems theory (Bowen, 1974) which posits that a family can be viewed as a system comprised of subsystems (i.e., husband-wife, mother-child) which are interconnected. Thus, husbands' and wives' experiences of acculturative stress, depressive symptoms, and marital quality would be interdependent. Moreover, family systems theory focuses on reciprocal relationships between family members instead of unidirectional ones (Parke, 2004). For example, there is potential for husbands' experiences to influence wives' experiences and vice versa. Finally, family members' experiences outside of the family have the potential to influence adaptation within the family (Cox & Paley, 1997). Accordingly, the current study cross-sectionally and longitudinally examined the relationships between individuals' acculturative stress and their own and partners' marital quality with a particular interest in whether these relationships were associated with one another through their own and partners' depressive symptoms.

The Link between Stress and Marital Quality

Most research that has examined the link between stress and marital quality has examined non-Mexican American couples. For example, Cutrona and colleagues (2003) cross-sectionally examined a sample of African American married couples and found that individuals' financial strain was related to a decrease in their own marital quality. Also using a cross-sectional design, Voydanoff (2004) studied a sample of mostly European American (79%) couples and learned that wives' negative work spillover and economic strain were negatively related to their own marital happiness, but that only husbands' economic strain was negatively related to their own marital happiness; husbands' negative work spillover was unrelated to their own marital happiness. Similarly, using a sample of predominately European American (86%) couples, Neff and Karney (2004) examined the relation between couples' stressors (e.g., finances, work, school) and marital satisfaction every six months across a four year time span. They found a significant stress spillover effect for wives, but not for husbands; on average, only wives' increased external stressors were related to their own decreased marital satisfaction.

In addition to finding spillover effects of stressors on outcomes, some researchers have found crossover effects as well. For example, two studies cross-sectionally examined the relationship between Swiss couples' external stressors (e.g., financial problems, trouble with neighbors) and their marital satisfaction as mediated by internal stressors (e.g., problems with partner, different family goals; Bodenmann et al., 2007; Ledermann et al., 2010). Results indicated that individuals' internal stressors mediated the relationships between their external stressors and their own *and* partners' marital satisfaction. Similarly, Neff and Karney (2007) examined a sample of mostly European

American (90%) married couples through assessments taken every six months over three and a half years. They found that, on average individuals' increased external stressors were related to a decrease in their own marital satisfaction. Moreover, when controlling for these spillover effects, an increase in wives' external stressors was negatively related to husbands' marital satisfaction, but an increase in husbands' external stressors was unrelated to wives' marital satisfaction.

To date, only two studies have examined the link between stress and marital quality with Latinos specifically. Using a sample of first-generation (i.e., at least one spouse was born in Mexico) Mexican American married couples, Leidy and colleagues (2009) found that marital quality was cross-sectionally related to acculturative stress. That is, positive marital quality was negatively related to acculturative stress and in turn, greater acculturative stress was related to greater child internalizing behaviors one year later. Because it is (more) logical that marital quality may have mediated the relationship between acculturative stress and child outcomes, the authors tested this as well, but found no support for this relationship. Moreover, these researchers limited their sample to first-generation Mexican Americans. However, acculturative stress may be experienced by later generation Mexican Americans as well (White et al., 2009; Umaña-Taylor & Alfaro, 2009). Similarly, Negy and colleagues (2010) examined a small sample of immigrant Latino women (i.e., Colombian, Mexican, Puerto Rican) cross-sectionally and found that acculturative stress was negatively related to marital quality; this relationship was partially mediated by social support. Regardless of the stressor (e.g., economic, daily hassles, job), research has found that increased levels of stress are negatively related to marital quality with studies reporting both spillover and crossover effects (e.g., Neff &

Karney, 2007). Thus, stress poses a threat to positive marital outcomes with the potential of having cascading effects on other family level variables (i.e., child outcomes; Nair et al., under review).

Mexican Americans are at above average risk for experiencing poor mental health outcomes (U.S. Department of Health and Human Services, 2001) and research has found acculturative stress to be positively related to Mexican Americans' depressive symptoms (e.g., Crockett et al., 2007; Hovey, 2000; Torres, 2010; White et al., 2009); however, White and colleagues (2009) have been the only researchers that examined this relationship with a diverse sample of Mexican American couples. Using a cross-sectional design, they found significant spillover effects for wives, but not for husbands. That is, wives' acculturative stress was positively related to their own depressive symptoms, but this relationship was not found for husbands. White and colleagues (2009) did not examine crossover effects. Moreover, research with both non-Mexican Americans and Mexican Americans has found depressive symptoms to be negatively related to marital quality (e.g., Kinnunen & Feldt, 2004; Herr, Hammen, & Brennan, 2007; Nair, et al., under review). For example, Nair and colleagues (under review) prospectively examined a diverse sample of Mexican American couples and found that individuals' depressive symptoms at Time 1 (T1) were negatively related to their own marital quality at Time 2 (T2; a two year time span), controlling for their T1 marital quality. Moreover, husbands' T1 depressive symptoms were negatively related to their wives' T2 marital quality, controlling for wives' T1 marital quality. Crossover effects were not found for the relationship between wives' depressive symptoms and husbands' marital quality. Given

these relations, the current study examined whether depressive symptoms linked changes in acculturative stress to marital quality longitudinally.

The Current Study

Given the size of the Mexican American population along with their high rates of married couples with children (U.S. Census Bureau, 2011), it may be especially important to learn *how* a cultural factor such as acculturative stress affects marital quality. Scholars have urged researchers to study acculturative stress *longitudinally* and to learn whether this stressor may be linked to adaptation within the family context (Umaña-Taylor & Alfaro, 2009); however, no studies to date have examined the relationship between acculturative stress and family adaptation with Mexican American individuals' across time. Thus, using a diverse sample of Mexican American marital partners, this study examined the relationships between acculturative stress and marital quality longitudinally by examining both spillover and crossover effects with a focus on whether a third variable linked acculturative stress and marital quality together.

This study addressed several limitations in marital quality research by (a) using a diverse sample of Mexican American individuals which allowed for an examination of differences within this population instead of an examination of differences between Mexican Americans and non-Mexican Americans, (b) longitudinally examining marital partners across seven years in contrast to most prior studies which have been cross-sectional, (c) examining both spillover and crossover effects of the relationships between acculturative stress and marital quality to better understand adaptation related to the experience of this cultural stressor within the family context, and (d) examining a third variable, depressive symptoms, that may link acculturative stress and marital quality

longitudinally. Because research with non-Mexican Americans has found socioeconomic status to be related to mental health and marital quality (e.g., Masiel & Karney, 2012) and White and colleagues (2009) found economic hardship to be related to acculturative stress, economic hardship was examined as a control variable. Economic hardship is a better choice as an indicator of socioeconomic status than more traditional indicators in samples that contain significant numbers of immigrants because of assessment and measurement equivalence difficulties (Roosa, Deng, Nair, & Burrell, 2005).

This study sought to answer several research questions: (1) What were individuals' trajectories of acculturative stress, depressive symptoms, and marital quality across seven years? (2) Were partners' trajectories similar? (3) Were changes in individuals' acculturative stress related to their own and partners' changes in depressive symptoms and marital quality? Were changes in individuals' depressive symptoms related to their own and partners' changes in marital quality?

Method

Participants

Data for this study came from a longitudinal study that investigated the impact of culture and context on the adaptation of 749 Mexican American families who resided in a Southwestern metropolitan area (Roosa et al., 2008). The current study used data from 466 two-parent families that had a participating child in the longitudinal study. Data collection occurred when children were in the fifth-grade (Time 1 [T1]), seventh-grade (Time 2 [T2]), 10th (Time 3 [T3]), and 12th (Time 4 [T4]). Two-parent families were considered to be marital partners if they indicated they were either (a) married or living together or (b) living with a partner, but not legally married. Although there were two-

parent families in this study who were not legally married, because they were the biological parents of the target child and had been together for at least 10 years at T1, they were treated as marital partners.

At T1, two-parent families comprised 62% of the sample and their median annual household income was between $30,001 and $35,000. Ninety-one percent of husbands (T1 *M* age = 38.09[*SD* = 6.26]) and 39% of wives (T1 *M* age = 35.73[*SD* = 5.65]) were employed fulltime; 42% of mothers were unemployed. Seventy-seven percent of husbands and 73% of wives were interviewed in Spanish with 80% of husbands and 79% of wives being born in Mexico. On average, husbands and wives completed ten years of education (husbands' range = one year of school to doctorate or advanced degree; wives' range = one year of school to some work toward a doctorate or advanced degree).

At T2, T3, and T4 attrition analyses were conducted to determine whether there were significant differences on demographic (i.e., age, nativity, education, family income, employment status) or study variables between two-parent families who did and did not participate. At T2, 94% of two-parent families were re-interviewed and attrition analyses indicated no significant differences between two-parent families who did (n = 440) and did not participate. Similarly, at T3 85% of two-parent families were re-interviewed and only one significant difference emerged between two-parent families who did (n = 398) and did not participate. That is, two-parent families who participated at T3 had wives who were more likely to work fulltime and less likely to be unemployed at T1 than two-parent families with wives who were less likely to work fulltime and more likely to be unemployed at T1, χ^2 (2) = 10.49, $p < .01$. At T4, 80% of two-parent families were re-interviewed and only three significant differences emerged between two-parent

families who did (n = 372) and did not participate. That is, two-parent families who participated at T4 had higher annual family incomes as well as husbands with higher levels of education at T1 than families who did not participate, F (1, 464) = 7.34, p <.01, F (1, 462) = 5.30, p < .05, respectively. In addition, two-parent families who participated at T4 had wives who were more likely to work fulltime and less likely to be unemployed at T1 than two-parent families with wives who were less likely to work fulltime and more likely to be unemployed at T1, χ^2 (2) = 14.50, p < .01.

Procedure

Purposive and random sampling techniques were used to identify 47 schools (i.e., public, charter, religious) representing the diverse neighborhoods in which Mexican American families resided. English and Spanish recruitment packets were sent home with every fifth-grade child in all 47 schools. On average, families returned 86% of the forms. Interested families with a Latino surname were contacted for eligibility screening. Eligibility requirements included: child attending the school; mother and child agreed to participate; mothers and fathers were the child's biological parents; the mother, father, and child were of Mexican descent; and the child was not severely learning disabled. Next, families were contacted to schedule an interview time. Of the 1,025 families that were recruited and eligible for participation, 73% participated (N = 749).

Prior to data collection, interviewers completed 40 hours of training; all interviewers were bicultural and most were bilingual. Data for this study were collected from two cohorts of marital partners from 2004-2013 using computer assisted personal interviews which occurred at either participants' home or over the telephone. In compliance with the University's Institutional Review Board, interviewers read and

explained the consent forms and answered participants' questions before the interview took began. Immediately after signing the consent forms, participants were given a monetary incentive (i.e., T1 = $45, T2 = $50, T3 = $55, T4 =$60). Participants were interviewed in their preferred language (English or Spanish) and on average interviews lasted two and a half hours. Interviewers read each question aloud to control for variations in literacy.

Measures

Family background information. Individuals provided information on their age, education level, family annual household income, language preference, and nativity.

Economic hardship. Economic hardship was used as an indicator of socioeconomic status because a large portion of the husbands and wives in this sample were immigrants and assessments of income are unlikely to be accurate for many immigrants due to irregular work, payments in cash, and no records of income (Roosa et al., 2005). Similarly, the value of a specific level of education to one's economic well-being is different if the education is completed in the United States versus Mexico. Individuals rated their levels of economic hardship using 20 items from Conger and Elder's (1994) economic hardship measure. Inability to make ends meet was measured with two items (T1-T4 *r* for husbands = .46-.60 & T1-T4 *r* for wives = .48-.57; "Think back over the past 3 months and tell us how much difficulty you had with paying your bills" [responses ranged from 1 = *a great deal of difficulty* to 5 = *no difficulty at all*, with responses reverse coded]). Having enough money for necessities was measured with seven items (T1-T4 α for husbands = .93-.94 & T1-T4 α for wives = .93-.94; "Your family had enough money to afford the kind of home you needed" [responses ranged

from 1 = *not at all true* to 5 = *very true*, with responses reverse coded]). Financial strain was measured with two items (T1-T4 *r* for husbands = .71-.78 & T1-T4 *r* for wives = .72-.78; "In the next three months, how often do you expect that you and your family will experience bad times such as poor housing or not having enough food?" [responses ranged from 1 = *almost never or never* to 5 = *almost always or always*]). Economic cutbacks were measured by nine event-count items ("In the last 3 months, has your family changed food shopping or eating habits a lot to save money?" [responses were 1 = *yes* and 2 = *no*; 2s were recoded into zeros and 1s were summed to create a count of cutbacks]). Note that Cronbach's alpha is not appropriate for event-count scales. Total economic hardship scores at T1, T2, T3, and T4 were computed by standardizing and summing scores for individuals' measures (T1-T4 α for husbands = .79-.85 & T1-T4 α for wives = .80-.85). This scale has been found to be reliable, valid, and language equivalent for English and Spanish speaking Mexican Americans (e.g., Barrera, Caples, & Tein, 2001).

Acculturative stress. Individuals reported their acculturative stress using the Multidimensional Acculturative Stress Inventory for Adults of Mexican Origin (MASI, Rodriguez, Myers, Mira, Flores, & García-Hernández, 2002). This study used five items from the English Competency Pressures subscale (range of T1-T4 α for husbands = .81-.86 & T1-T4 α for wives = .87-.90; e.g., "You feel uncomfortable around people who only speak English."). Participants responded to items on a five-point Likert scale ranging from 1 = *not at all true* to 5 = *very true*. Higher scores indicated higher levels of acculturative stress. This measure has been shown to be reliable and valid with Mexican Americans (Rodriguez et al., 2002).

Depressive symptoms. Individuals reported their depression symptoms with the Center for Epidemiologic Studies-Depression Scale (CES-D); Radloff, 1977). This 20-item scale (range of T1-T4 α for husbands = .87-.91 & T1-T4 α for wives = .89-.93; e. g., "You were bothered by things that usually don't bother you") had responses ranging from 1 = *rarely or none of the time* to 4 = *most or all of the time*. Higher scores indicated more depressive symptoms. This scale has been shown to be reliable and valid in research with general, clinical, and Latino populations (Moscicki, Locke, Rae, & Boyd, 1989: Radloff, 1977).

Marital quality. Individuals reported their marriage quality using the Quality of Marriage Index (QMI; Norton, 1983). This scale was comprised of five items (range of T1-T4 α for husbands = .90-.94 & T1-T4 α for wives = .93-.95; "Your relationship is strong"). Participants responded to items on two five-point Likert scales, items one through four - 1 = not at all true to 5 = very true and item five - 1 = very unhappy to 5 = very happy. Higher scores indicated greater marital quality. This scale has been found to be valid and reliable with Mexican Americans (e.g., Tschann, Flores, Pasch, & Marin, 1999).

Analytic Plan

This study's primary research questions were addressed with a series of latent growth curve models (LGM) in the structural equation modeling (SEM) framework using Mplus 7.1 (Muthén & Muthén, 1998-2013). In LGM two latent variables represent change in an outcome variable across time, the intercept which is the mean level of some outcome when time equals zero and the slope which is the rate of change that occurs in the outcome across time (Preacher, Wichman, MacCallum, & Briggs, 2008). For each

LGM, factor loadings for the intercept were set to equal one and factor loadings for the slope reflected centering at T1 and unequally spaced assessments (i.e., T1 = 0, T2 = 2, T3 = 5, T4 = 7). For each research question, analyses were conducted in two steps. First, unconditional models were estimated and second, conditional models including economic hardship as a time-varying covariate were estimated. That is, regression coefficients for the associations between individuals' time-specific economic hardship scores and their respective outcome variables were estimated in each conditional model (see Figure 2 for an example). Model fit was examined by root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR). Good (acceptable) model fit is reflected by a RMSEA < .05 (.08) and SRMR < .05 (.08; Hu & Bentler, 1999; Kline, 2005). At T1, 0% of husbands' and 1% of wives' data for study variables were missing. At T2, no more than 14% of husbands' and no more than 12% of wives' data were missing. At T3, no more than 31% of husbands' and no more than 24% of wives' data were missing. At T4, no more than 38% of husbands' and no more than 31% of wives' data were missing. Missing data patterns were analyzed in Mplus to identify whether demographic variables (e.g., partners' respective education levels, family income) were significantly correlated with missing data indicators; however, correlations were not greater than .40 (Enders, 2010) so auxiliary variables were not included in analyses. To handle missing data, parameters were estimated using full information maximum likelihood (FIML; Enders, 2010) with the maximum likelihood restriction (MLR) estimator because these data were nonnormally distributed.

Research question 1. LGMs estimated individuals' trajectories of acculturative stress, depressive symptoms, and marital quality from T1 to T4 (Figure 2). The

parameters estimated were: (a) mean intercept (average T1 outcome variable across individuals), (b) mean slope (average growth rate in outcome variable across individuals from T1 to T4), (c) intercept variance (individual variability of average T1 outcome variable), (d) slope variance (individual variability of growth rate in outcome variable from T1 to T4), (e) intercept-slope covariance (relationship between individuals intercept and slope), and (f) residual variance. Conditional models estimated the same parameters, but controlled for individuals' time-specific economic hardship scores on their respective outcome variables. In sum, individuals' mean intercepts and mean slopes were the parameters of key interest in answering this research question.

Research question 2. Dyadic LGMs estimated if partners' individual trajectories of acculturative stress, depressive symptoms, and marital quality from T1 to T4 were similar. The parameters estimated were partners' respective: (a) mean intercepts, (b) mean slopes, (c) intercept variances, (d) slope variances, (e) intrapersonal intercept-slope covariances, and (f) intrapersonal unique residual variances. Because partners' respective intercepts, slopes, and residual variances were correlated to model interdependence (Figure 3), interpersonal intercept-intercept, intercept-slope, slope-slope, and residual covariances were also estimated. Conditional models estimated the same parameters, but controlled for individuals' time-specific economic hardship scores on their respective outcome variables. The *model test* command in Mplus was used to yield a Wald test in which $p < .05$ indicated a significant difference between partners' respective mean intercepts and mean slopes within each construct. In sum, partners' respective mean intercepts and mean slopes, interpersonal intercept-intercept, intercept-slope, slope-slope,

and residual covariances were the parameters of key interest in answering this research question.

Research question 3. Dyadic parallel process LGMs were computed to examine whether changes in individuals' acculturative stress were related to their own and partners' changes in depressive symptoms and marital quality and whether changes in individuals' depressive symptoms were related to their own and partner's changes in marital quality (Figure 4). The parameters estimated were partners' respective: (a) mean intercepts, (b) mean slopes, (c) intercept variances, (d) slope variances, (e) intrapersonal intercept-intercept covariances, (f) intrapersonal intercept-slope covariances, (g) intrapersonal slope-slope covariances, and (h) residual variances. Partners' interpersonal intercept-intercept, intercept-slope, slope-slope, and residual covariances for all three constructs were also estimated. The conditional model estimated the same parameters, but controlled for individuals' time-specific economic hardship scores on their respective outcome variables. Although partners' intrapersonal and interpersonal intercept-intercept covariances between constructs were not parameters that would answer the primary research question, they were of substantive interest in that they were estimates of the cross-sectional spillover and crossover effects between acculturative stress, depressive symptoms, and marital quality. In sum, partners' intrapersonal and interpersonal slope-slope covariances were the parameters of key interest in answering this research question.

Results

Zero-order Correlations and Descriptive Statistics

Zero-order correlations, means, and standard deviations are presented in Tables 6 to 15. Correlations were in the expected directions and indicated that across time: (a)

individuals' correlations within each construct were positive and significant suggesting relative stability in their reports of these constructs; (b) correlations between partners within each construct were also positive and significant indicating that these variables were not independent from one another, thus reinforcing the need to correctly model interdependence; (c) individuals' acculturative stress was positively related to their own and partners' depressive symptoms; (d) individuals' depressive symptoms were negatively related to their individual marital quality, with the exception of wives' T1 depressive symptoms and their individual T4 marital quality; (e) husbands' depressive symptoms were negatively related to their wives' marital quality, with the exception of husbands' T4 depressive symptoms and their wives' T2 marital quality; and (f) individuals' economic hardship scores were positively related to their individual and partners' acculturative stress and depressive symptoms. Although inconsistent across time, wives' depressive symptoms were negatively related to their husbands' marital quality and individuals' economic hardship scores were negatively related to their own and partners' marital quality. Finally, individuals' acculturative stress was unrelated to their own and partners' marital quality, with the exceptions of the association between husbands' T4 acculturative stress and their wives' T1 marital quality as well as between wives' T2 acculturative stress and their own T1 marital quality.

Research Question 1: What were individuals' trajectories of acculturative stress, depressive symptoms, and marital quality?

Results for individuals' unconditional and conditional LGMs are presented in Table 16. Prior to estimating the trajectories, individual unconditional LGMs constraining residual variances to be equal across time were compared to individual unconditional

LGMs allowing residual variances to be free across time. The difference in the two models was evaluated by a log-likelihood difference test using the scaling correction factors (when using estimator = MLR, it is inappropriate to use chi-square difference tests; Muthén & Muthén, 1998 –2013). Results indicated that husbands' residual variances for acculturative stress should be free across time, $\Delta \chi 2$ ($df\Delta 3$) = 8.55, $p < .05$. Thus, in husbands' LGMs for acculturative stress the residual variances were allowed to vary across time; in all other LGMs residual variances were constrained to be equal across time.

Husbands' trajectories. With respect to acculturative stress, husbands' average T1 levels (i.e., mean intercept) were estimated to be 1.96 (on a scale of one-five) with significant individual variability (i.e., intercept variance) emerging in their initial levels. On average husbands' acculturative stress did not significantly change across time (i.e., mean slope). With respect to depressive symptoms, husbands' average T1 levels were estimated to be 31.01 (on a scale of 20-80) with significant individual variability emerging in their initial levels. On average husbands' depressive symptoms did not significantly change across time, but significant individual variability emerged in their change in depressive symptoms across time (i.e., slope variance). With respect to marital quality, husbands' average T1 levels were estimated to be 4.64 (on a scale of one-five) with significant individual variability emerging in their initial levels. On average husbands' marital quality significantly decreased across time with significant individual variability emerging in this change. Results from the conditional models indicated that after controlling for husbands' time-specific economic hardship scores on their acculturative stress, depressive symptoms, and marital quality across time, parameters of

key interest remained the same (Table 16, Model 2). Moreover, husbands' time-specific economic hardship scores were unrelated to their levels of acculturative stress and marital quality at each time point, but positively related to their depressive symptoms at T2, T3, and T4. In sum, results indicated that on average, as determined by the mean slopes, husbands' marital quality significantly decreased from T1 to T4, but their acculturative stress and depressive symptoms did not change.

Wives' trajectories. With respect to acculturative stress, wives' average T1 levels were estimated to be 2.40 (on a scale of one-five) with significant individual variability emerging in their initial levels. On average wives' acculturative stress significantly decreased across time, but significant individual variability did not emerge in this change. With respect to depressive symptoms, wives' average T1 levels were estimated to be 33.93 (on a scale of 20-80) with significant individual variability emerging in their initial levels. On average wives' depressive symptoms did not significantly change across time. With respect to marital quality, wives' average T1 levels were estimated to be 4.49 (on a scale of one-five) with significant individual variability emerging in their initial levels. On average wives' marital quality significantly decreased across time with significant individual variability emerging in this change. Results from the conditional models indicated that after controlling for wives' time-specific economic hardship scores on their acculturative stress, depressive symptoms, and marital quality across time, parameters of key interest remained the same (Table 16, Model 2). Moreover, wives' time-specific economic hardship scores were unrelated to their levels of acculturative stress at each time point, but positively related to their depressive symptoms at T1, T2, T3, and T4 as well as to their marital quality at T1 and

T2. In sum, results indicated that on average, as determined by the mean slopes, wives' acculturative stress and marital quality significantly decreased from T1 to T4, but their depressive symptoms did not change.

Research Question 2: Were partners' trajectories similar?

See Table 17 for the unconditional and conditional dyadic LGM results.

Acculturative stress. Results from the unconditional model ($X^2(21, N = 466) = 29.38$, $p = .11$; RMSEA = .03, CI [.00-.05]; SRMR = .02) indicated that intrapersonal parameters of key interest (i.e., partners' respective mean intercepts and mean slopes) remained the same as in the individual LGMs (Table 17, Model 1). As indicated by the correlation for the significant interpersonal intercept-intercept covariance, higher levels of husbands' T1 acculturative stress were positively related to higher levels of wives' T1 acculturative stress, $r = .55$, $p < .001$. Once economic hardship was added as a time-varying covariate, the model fit well ($X^2(45, N = 466) = 44.35$, $p = .50$; RMSEA = .00, CI [.00-.03]; SRMR = .01). Results indicated that after controlling for individuals' time-specific economic hardship scores on their respective levels of acculturative stress, intrapersonal and interpersonal (i.e., intercept-intercept covariance) parameters of key interest remained the same (Table 17, Model 2). An additional interpersonal parameter emerged as significant in the conditional model. That is, as indicated by the correlation for the significant interpersonal residual covariance for T2 acculturative stress, when one partner experienced higher or lower acculturative stress at T2, the other partner did also, $r = .15$, $p < .05$.

With respect to T1 acculturative stress, husbands' average levels ($M = 1.96$) were lower than wives' ($M = 2.40$) with a Wald test indicating a significant difference in

husbands' and wives' mean intercepts, $X^2(1) = 75.44$, $p < .001$ (Figure 5). An effect size of the difference between partners' respective mean intercepts was calculated using conditional estimated means and conditional estimated variances with results indicating a small effect ($d = 0.42$; Cohen, 1988). With respect to average change in acculturative stress across time, husbands' levels did not significantly change whereas wives' levels significantly decreased by 0.04 points per time point (Figure 5). To assess practical significance of this change, an effect size of the mean difference between wives' T1 and T4 acculturative stress was calculated using their conditional estimated means (i.e., T1 and T4) and conditional estimated variances (i.e., average of T1-T4) with results indicating a small effect ($d = 0.27$). Moreover, a Wald test indicated a significant difference between partners' respective mean slopes, $X^2(1) = 18.07$, $p < .001$. That is, on average couples did not change at similar rates. Given that on average wives' acculturative stress decreased across time and husbands' acculturative stress remained stable, it was of interest to examine if by T4 partners' reported similar levels of acculturative stress; however, a Wald test indicated a significant difference in partners' average levels of T4 acculturative stress, $X^2(1) = 15.63$, $p < .001$, although this was a small effect ($d = 0.20$).

Depressive symptoms. Results from the unconditional model ($X^2(24, N = 466) = 27.79$, $p = .27$; RMSEA = .02, CI [.00-.04]; SRMR = .04) indicated that intrapersonal parameters of key interest (i.e., partners' respective mean intercepts and mean slopes) remained the same as in the individual LGMs (Table 17, Model 1). As indicated by the correlation for the significant interpersonal intercept-intercept covariance, higher levels of husbands' T1 depressive symptoms were positively related to higher levels of wives'

T1 depressive symptoms, $r = .42$, $p < .001$. Similarly, as indicated by the correlation for the significant interpersonal residual covariance for T2 depressive symptoms, when one partner experienced greater or fewer depressive symptoms at T2, the other partner did also, $r = .32$, $p < .001$. Once economic hardship was added as a time-varying covariate, the model fit well ($X^2(48, N = 466) = 54.39$, $p = .24$; RMSEA = .02, CI [.00-.04]; SRMR = .02). Results indicated that after controlling for individuals' time-specific economic hardship scores on their respective levels of depressive symptoms, all intrapersonal and interpersonal parameters of key interest remained the same (Table 17, Model 2).

With respect to T1 depressive symptoms, husbands' average levels ($M = 31.05$) were lower than wives' ($M = 33.88$) with a Wald test indicating a significant difference in husbands' and wives' mean intercepts, $X^2(1) = 38.24$, $p < .001$ (Figure 6). An effect size of the difference between partners' respective mean intercepts was calculated using their conditional estimated means and conditional estimated variances with results indicating a small effect ($d = 0.31$). With respect to average change in depressive symptom across time, partners' levels did not significantly change; a Wald test indicated a non-significant difference between partners' respective mean slopes, $X^2(1) = .28$, $p = .59$ (Figure 6). That is, on average couples changed at similar rates.

Marital quality. Results from the unconditional model ($X^2(24, N = 466) = 21.94$, $p = .58$; RMSEA = .00, CI [.00-.03]; SRMR = .12) indicated that intrapersonal parameters of key interest (i.e., partners' respective mean intercepts and mean slopes) remained the same as in the individual LGMs (Table 17, Model 1). As indicated by the correlation for the significant interpersonal intercept-intercept covariance, higher levels of husbands' T1 marital quality were positively related to higher levels of wives' T1

marital quality, $r = .60$, $p < .001$. Moreover, as indicated by the correlation for the significant interpersonal slope-slope covariance, a decrease in husbands' marital quality across time was positively related to a decrease in wives' marital quality across time, $r = .76$, $p < .01$. Similarly, as indicated by the correlations for the significant interpersonal residual covariances for T1, T2, and T3 marital quality, when one partner experienced higher or lower marital quality at T1, T2, and T3, the other partner did also, $r = .30$, $p < .05$, $r = .36$, $p < .001$, $r = .36$, $p < .05$, respectively. Once economic hardship was added as a time-varying covariate, the model fit well ($X^2(48, N = 466) = 48.95$, $p = .43$; RMSEA = .01, CI [.00-.03]; SRMR = .07). Results indicated that after controlling for individuals' time-specific economic hardship scores on their respective levels of marital quality, all intrapersonal and interpersonal parameters of key interest remained the same (Table 17, Model 2).

With respect to T1 marital quality, husbands' average levels ($M = 4.64$) were higher than wives' ($M = 4.49$) with a Wald test indicating a significant difference in partners' respective mean intercepts, $X^2(1) = 25.57$, $p < .001$ (Figure 7). An effect size of the difference between partners' respective mean intercepts was calculated using their conditional estimated means and conditional estimated variances with results indicating a small effect ($d = 0.23$). With respect to average change in marital quality across time, partners' levels decreased by 0.03 points per time point (Figure 7). To assess practical significance of these changes, an effect size of the mean difference between partners' respective T1 and T4 levels of marital quality was calculated using their conditional estimated means and conditional estimated variances (i.e., average of T1-T4) with results indicating small effects (husbands' $d = 0.30$; wives' $d = 0.23$). Moreover, a Wald test

indicated a non-significant difference between partners' respective mean slopes, $X^2(1) = .00$, $p = .98$. That is, on average couples changed at similar rates.

Research Question 3: Were changes in individuals' acculturative stress related to their own and partners' changes in depressive symptoms and marital quality? Were changes in individuals' depressive symptoms related to their own and partners' changes in marital quality?

Results for the unconditional and conditional dyadic parallel process LGMs are presented in Table 18. When the initial unconditional parallel process LGM was run an error message indicated there was a correlation greater than one between two latent variables. After examining the output, there was a correlation greater than one as well as a correlation of .85 involving mean slopes of husbands' acculturative stress and wives' depressive symptoms. Given that both of these mean slopes and their variances were non-significant, these slope variances (i.e., husbands' acculturative stress, wives' depressive symptoms) along with their respective intercept-intercept, intercept-slope, and slope-slope covariances were set to zero (i.e., not estimated). The resulting model ($X^2(212, N = 466) = 365.94$, $p < .001$; RMSEA = .04, CI [.03-.05]; SRMR = .06) ran without an error message and indicated that most intrapersonal and interpersonal parameters of key interest remained the same as in the dyadic LGMs (Table 18, Model 1). Once economic hardship was added as a time-varying covariate, the model fit well ($X^2(300, N = 466) = 453.43$, $p < .001$; RMSEA = .03, CI [.03-.04]; SRMR = .05). Results indicated that after controlling for individuals' time-specific economic hardship scores on their respective outcomes, intrapersonal (Table 18, Model 2) and interpersonal parameters of key interest remained the same (Tables 19 and 20) as in the unconditional dyadic parallel process

LGM. In contrast to the individual and dyadic LGMs, significant change across time emerged in husbands' depressive symptoms. As indicated by the mean slope, on average husbands' levels of depressive symptoms significantly increased across time by .14 points per time point. To assess practical significance of this change, an effect size of the mean difference between husbands' T1 and T4 depressive symptoms was calculated using conditional estimated means (i.e., T1 and T4) and conditional estimated variances (i.e., average of T1-T4) with results indicating a negligible effect (d = 0.11).

Several cross-sectional spillover and crossover effects emerged between partners' T1 levels of acculturative stress, depressive symptoms, and marital quality as indicated by the correlations for the significant intrapersonal and interpersonal intercept-intercept covariances (Table 19). That is, positive spillover effects emerged between individuals' acculturative stress and their depressive symptoms; higher levels of individuals' T1 acculturative stress were positively related to higher levels of their T1 depressive symptoms. Similarly, positive crossover effects emerged between individuals' acculturative stress and their partners' depressive symptoms; higher levels of individuals' T1 acculturative stress were positively related to higher levels of their partners'T1 depressive symptoms. Moreover, negative spillover effects emerged between individuals' depressive symptoms and their marital quality; higher levels of individuals' T1 depressive symptoms were negatively related to higher levels of their T1 marital quality. Negative crossover effects also emerged between individuals' depressive symptoms and their partners' marital quality; higher levels of individuals' T1 depressive symptoms were negatively related to higher levels of their partners' T1 marital quality. Spillover or crossover effects did not emerge between individuals T1 levels of acculturative stress and

their individual or partners' marital quality. Finally, it is important to note that spillover or crossover effects did not emerge between individuals' T1 levels of acculturative stress and changes in their individual or partners' depressive symptoms or marital quality or between individuals' T1 levels of depressive symptoms and changes in their individual or partners' marital quality.

Because (a) on average husbands' levels of acculturative stress and wives' depressive symptoms did not significantly change across time (i.e., mean slopes were non-significant), (b) individual variability did not emerge in these changes (i.e., slope variances were non-significant), (c) the slope variances for husbands' acculturative stress and wives' depressive symptoms were set to zero, and (d) significant slope variance did not emerge in wives' acculturative stress, it was not possible to estimate relationships between changes in these variables with changes in other variables. Correlations for intrapersonal and interpersonal slope-slope covariances are presented in Table 20. As indicated by the correlation for the significant slope-slope covariance, a spillover effect emerged between changes in husbands' depressive symptoms and marital quality. That is, increases in husbands' depressive symptoms across time were related to decreases in their marital quality across time; however, a crossover effect did not emerge between changes in husbands' depressive symptoms and changes in their wives' marital quality.

Discussion

Guided by family systems theory (Bowen, 1974), the current study examined a diverse sample of Mexican American marital partners' individual trajectories of acculturative stress, depressive symptoms, and marital quality. Although studies with Mexican American individuals have shown acculturative stress to be positively related to

depressive symptoms (Hovey, 2000; White et al., 2009) and depressive symptoms to be negatively related to marital quality (Nair et al., under review), whether these constructs changed across time and were interrelated across time was not examined. Thus, the current study took the first step in examining marital partners' intra- and inter-individual changes in these three constructs across seven years. This study's results provided detailed information about (a) individuals' trajectories of acculturative stress, depressive symptom, and marital quality; (b) similarities in partners' trajectories within each construct; and (c) spillover and crossover effects between all three constructs.

Individuals' Trajectories

Like previous research (e.g., Masiel & Karney, 2012; White et al., 2009), the current study found economic hardship to be significantly correlated with acculturative stress, depressive symptoms, and marital quality. Accordingly, individuals' time-specific economic hardship scores were included as covariates in all growth models (i.e., individual, dyadic, parallel). Prior to describing individual changes in partners' acculturative stress, depressive symptoms, and marital quality, their respective initial levels of these constructs were described as a way to understand empirically why change may or may have not occurred across time. First, husbands' average initial levels of acculturative stress were low and their average slopes were negative leaving little room for a decrease in acculturative stress across time. Moreover, wives' average initial levels of acculturative stress were in the middle range and their average slopes were also negative which indicated there was greater room for a decrease in acculturative stress across time. Second, both partners' average initial levels of depressive symptoms were low and their average slopes were positive which indicated there was greater room for

increases in depressive symptoms across time. Lastly, both partners' average initial levels of marital quality were high and their average slopes were positive which indicated there was greater room for decreases in marital quality across time. Overall, partners' respective average initial levels of these constructs did not provide information about the trajectories themselves, but provided some insight regarding opportunity for changes in constructs across time as discussed below.

In regards to acculturative stress, although both partners' average slopes were negative, husbands showed no significant changes whereas wives showed small significant decreases across the seven years ($d = 0.27$). Wives' decreases in acculturative stress may have been associated with their increasing acculturation. For instance, researchers Mills and Caetano (2012) found Mexican Americans individuals' acculturation processes to be negatively related to their acculturative stress levels. Other researchers have posited that as individuals experience the process of acculturation their levels of acculturative stress, in particular English competency pressures, may decrease across time (Umaña-Taylor & Alfaro, 2009). With respect to depressive symptoms across the seven years, although both partners' average slopes were positive, neither partner showed significant changes. Theoretically, one would not expect a construct such as depressive symptoms to increase or decrease across time unless there was another individual difference variable in the model that would predict change across time. Interestingly, in the dyadic parallel process model husbands showed significant increases in depressive symptoms across time; this is likely associated with the additional variables included in the parallel process model (discussed below). Finally in regards to marital quality, both partners' average slopes were negative and both showed small significant

decreases across the seven years (husbands' $d = 0.30$; wives' $d = 0.23$). A great deal of marital quality research has focused exclusively on newlyweds (e.g., Kurdek, 2005) because scholars have often posited that decreases in marital quality occur in the first few years of marriage (e.g., Miller & Perlman, 2008). However, other researchers have found this to be untrue supporting the notion that even well into the marriage, marital quality decreases (e.g., Umberson, Williams, Powers, Chen, & Campbell, 2005; VanLaningham, Johnson, & Amato, 2001). Relatedly, partners in the current study were married for at least ten years prior to the study providing further empirical support that over the course of marriage, marital quality decreases for Mexican American partners just as it does for non-Mexican American partners.

Similarities in Partners' Trajectories

When studying marital relationships, researchers must take into account that partners' experiences are not independent from one another and parameter estimates will be biased if this lack of independence is not properly modeled. Interdependence of the current study's data was properly modeled by estimating three dyadic growth models for partners' respective acculturative stress, depressive symptoms, and marital quality. This notion of interdependence can be conceptualized within a family systems theoretical framework (Bowen, 1974) whereby partners' experiences of these three constructs would be interrelated. Moreover, an advantage of properly modeling interdependence is being able to assess similarities in partners' experiences of each construct both across and within partners. First, similarities in partners' initial levels are described and second, similarities in their changes across time are described.

With respect to both acculturative stress and depressive symptoms, significant differences emerged in partners' respective average initial levels whereby wives had higher levels than husbands (acculturative stress $d = 0.42$; depressive symptoms $d = 0.31$). These findings are aligned with hypotheses regarding differences in men's and women's reactivity to interpersonal stressors and vulnerability to experiencing depression (Nolen-Hoeksema, 2001). Regarding marital quality, significant differences emerged in partners' respective average initial levels whereby husbands had higher levels than wives ($d = 0.23$). This difference was not surprising given wives' depressive symptoms have been linked to their perceptions of marital quality (Spotts et al., 2004). Although partners' average initial levels of these three constructs were different, within partners initial levels of these three constructs were similar. Specifically, partners who experienced higher initial levels of acculturative stress, depressive symptoms, and marital quality had partners who also experienced higher initial levels of these three constructs. These findings are new to these research areas and further support the notion that marital partners' experiences both outside and inside of the marriage are interconnected as aligned with family systems theory (Bowen, 1974). Of further interest, husbands' initial acculturative stress levels were similar to previous research findings with Mexican-origin couples, but wives' levels were not (e.g., Helms et al., 2014); both partners' initial depressive symptoms and marital quality levels were similar to previous research findings with Mexican American couples (e.g., Helms et al., 2014; Wheeler, Updegraff, & Crouter, 2011; Wheeler, Updegraff, & Thayer, 2010). To summarize, although differences emerged between partners' respective average initial levels of the three constructs, within partners, their respective initial levels were similar.

In regards to acculturative stress, partners' respective average changes across time were not similar. That is, on average, husbands' acculturative stress remained stable without significant change while on average wives' acculturative stress levels significantly decreased. As illustrated in Figure 5, it appears that if husbands' levels of acculturative stress on average remained stable and wives' levels on average continued to decrease, partners' respective average levels of acculturative stress would eventually become similar. With respect to depressive symptoms and marital quality, partners' respective average changes across time were similar. These findings are new to these research areas and provide information about similarities in regards to partners' *average* changes of these three constructs. From a family systems theoretical framework, it is of more interest to learn whether experiences *within* partners are similar. For example, results indicated that experiences of acculturative stress and depressive symptoms within partners were related. Specifically, when one partner experienced particularly high or low levels of acculturative stress and depressive symptoms at year two of the study, it was likely that the other partner did as well. Both of these findings are new to these areas of research and further support the notion that marital partners' experiences, even outside of the marriage, are interconnected (e.g., Bowen, 1974). Surprisingly, the relationships between partners' experiences of high and low acculturative stress and depressive symptoms were not related at years zero, five, or seven. In accordance with family systems theory, one would expect that marital partners' experiences would be consistently related given marital partners are constantly interacting and mutually influencing one another (White & Klein, 2008), but this study's results did not support this. Interestingly, similarities within partners' experiences with respect to marital quality

were even more striking. Specifically, partners' who experienced decreases in marital quality across time had partners who also experienced decreases in marital quality across time. Also, at years one, two, and four of the study, when one partner experienced particularly high or low levels of marital quality, the other partner did as well. Perhaps, partners' experiences of marital quality were most similar because these questions were specifically about the marital relationship. It is likely that both partners were aware when things were going right or wrong within their marriage thereby keeping their perceptions of their relationship quality strongly related. In contrast, partners' experiences of acculturative stress and depressive symptoms, although somewhat related, were more separate and less synchronized. Future work should consider why some experiences within partners might be more related than others. Although partners' experiences of acculturative stress and depressive symptoms were less similar than their experiences of marital quality, these results overall are aligned with family systems theory which posits that husbands' and wives' experiences are interconnected.

Partners' Parallel Trajectories

An estimation of the three dyadic growth models allowed for an examination of similarities in partners' experiences *within* each construct, but did not allow for an examination of intra- and inter-individual relationships *between* constructs. Thus, spillover and crossover effects between partners' acculturative stress, depressive symptoms, and marital quality were examined by estimating a dyadic parallel process growth model. Several significant spillover and crossover effects emerged between partners' initial levels of acculturative stress, depressive symptoms, and marital quality whereas only one significant spillover effect emerged for changes of these constructs

across time. Prior to describing these effects, it is important to note that a significant change for husbands emerged; on average, husbands showed small significant increases in their depressive symptoms across the seven years (d = 0.11). Because this change was not significant in the individual or dyadic growth models, it was likely associated with husbands' decreases in their marital quality across time (more on this relationship below).

From a family systems theoretical framework, it is important to understand if experiences both inside and outside of the family influence family adaptation (e.g., Cox & Paley, 1997; Parke, 2004). In contrast to previous research findings (e.g., Cutrona et al., 2003; Voydanoff, 2004), the current study did not find marital partners' initial experiences of acculturative stress to be related to their own and partners' initial experiences of marital quality; however, there is still potential for these constructs to be indirectly related through depressive symptoms. For example, individuals who experienced higher initial levels of acculturative stress experienced higher initial levels of depressive symptoms *and* had partners who also experienced higher initial levels of depressive symptoms. Also, individuals who experienced higher initial levels of depressive symptoms also experienced lower initial levels of marital quality *and* had partners who also experienced lower initial levels of marital quality. These spillover effects were aligned with previous research findings which have linked individuals' acculturative stress to their depressive symptoms and their depressive symptoms to their marital quality (e.g., Kinnunen & Feldt, 2004; Herr et al., 2007; Hovey, 2000; Nair et al., under review; White et al., 2009). Although new to research, these crossover effects were aligned with family systems theory and provided empirical evidence that Mexican American marital partners' experiences of acculturative stress and depressive symptoms

as well as depressive symptoms and marital quality were interconnected in a reciprocal way. With respect to spillover and crossover effects between changes of these three constructs across time, only one significant spillover effect emerged; husbands who had increases in depressive symptoms across time also had decreases in marital quality across time. Thus, changes in partners' acculturative stress were unrelated to changes in their own and partners' depressive symptoms and marital quality. Nevertheless, there seemed to be potential for partners' initial experiences of acculturative stress to have long-term effects on their own and partners' marital quality as mediated by their own and partners' depressive symptoms; a test of this hypothesis in future research is warranted.

Implications

Researchers (e.g., Bodenmann et al., 2007; Neff & Karney, 2007) have strived to better understand the complexity of marital relationships by focusing on the notion that partners are interconnected with many of their experiences, both outside and inside of the marriage, being interdependent (Bowen, 1974). With a diverse sample of Mexican American marital partners, the current study took the first step in understanding the complexity of individuals' experiences of acculturative stress, depressive symptoms, and marital quality across seven years with a focus on both intra- and inter-individual relationships within and between these three constructs. Consequently, the current study provided new information regarding individuals' trajectories of these three constructs, similarities in partners' trajectories within each construct, and spillover and crossover effects between these three constructs. Overall, marital partners' experiences of these three constructs were interconnected with partners' marital quality experiences being most similar. These findings further underscored the need for researchers who study

marital relationships to correctly model interdependence instead of ignoring it. As illustrated in the current study, when researchers properly model interdependence, questions can be answered about partners' similarities in their experiences which ultimately may be useful for prevention/intervention efforts. Given the current study's findings, it may be useful for programs that are aiming to bolster Mexican American marital partners' relationships to consider the importance of having both partners participate as their experiences are often interconnected. Finally, the significant spillover effects provided further support linking Mexican American individuals' acculturative stress, depressive symptoms, and marital quality whereas the significant crossover effects provided new support that partners' experiences of these three constructs were related. Thus, intervention and prevention researchers should aim to mitigate and/or prevent the negative outcomes associated with acculturative stress and depressive symptoms.

Strengths, Limitations, and Conclusion

The current study had several strengths. For example, it was the first study to examine Mexican American individuals' changes of acculturative stress, depressive symptoms, and marital quality across seven years via individual latent growth modeling. It also was the first study to examine Mexican American marital partners' intra- and inter-individual changes of acculturative stress, depressive symptoms, and marital quality across seven years via dyadic latent growth modeling. This analytic technique properly modeled interdependence of the data and allowed for an examination of similarities in partners' individual trajectories within each construct. Next, it was the first study to examine Mexican American marital partners' intra- and inter-individual changes of acculturative stress, depressive symptoms, and marital quality simultaneously via dyadic

parallel process latent growth modeling. This analytic technique allowed for an examination of both spillover and crossover effects between initial levels and changes of constructs. Finally, the current sample was more diverse than previous samples (e.g., Leidy et al., 2009; Negy et al., 2010), thus it is likely that the results of the current study are more generalizable to the larger Mexican American population.

Despite these strengths, the study was not without limitations. The measure of acculturative stress focused on one very specific type of cultural stress, English competency pressures. Because there are other types of acculturative stress that individuals may experience, the study's findings are limited in this aspect. Moreover, although individuals' economic hardship scores were included in all models as time-varying covariates, it is possible that additional important covariates or predictors were left out. Finally, although the current study assessed the relationships between these constructs longitudinally one cannot infer causation with these types of longitudinal models. That is, change across time was examined by computing an average of individuals' outcome scores from year zero to seven, thus there is no temporal precedence and causal relationships could not be determined.

With a diverse sample of Mexican American marital partners', this study examined individuals' trajectories of acculturative stress, depressive symptoms, and marital quality across seven years to better understand how their experiences of these three constructs were interconnected. The current study's results suggested that although partners' experiences of acculturative stress and depressive symptoms were somewhat similar, their experiences of marital quality were most similar further highlighting the notion that partners' experiences are interconnected (Bowen, 1974). These findings also

emphasized the need for researchers to properly model interdependence instead of ignoring it when aiming to understand the complexity of marital relationships. Relatedly, when interdependence is properly modeled it affords researchers the opportunity to answer important questions regarding similarities of partners' experiences. Moreover, although the current study's results did not provide evidence that changes in partners' acculturative stress were related to changes in either their own or partners' depressive symptoms or marital quality, results suggested the potential for partners' initial levels of acculturative stress to have long-term spillover and crossover effects on their marital quality as mediated by their depressive symptoms. In conclusion, by examining Mexican American marital partners' intra- and inter-individual changes between three constructs which have been found to significantly impact the lives of Mexican American families, this study took the first step at gaining greater knowledge of these complex relationships.

Dissertation Conclusion

My dissertation focused on Mexican American individuals' romantic relationships at two distinct developmental periods, adolescence and adulthood. Using several frameworks (i.e., Collins' five feature framework for adolescent romantic relationships, person-centered perspective, family systems theory), I first identified unique types of adolescent romantic relationships that differed in *quality* and were distinctly associated with adolescent adjustment and second, took the first step at understanding how a salient cultural stressor, *acculturative stress,* impacted partners' marital adaptation longitudinally. These studies provided evidence of within-group variations of the overall *quality* of adolescent romantic relationships and found that partners' experiences of three very important constructs were interconnected. Moreover, both studies provided examples of innovative analytic techniques that future researchers can utilize to further increase our understanding of Mexican American romantic relationships concurrently and longitudinally with individuals and couples.

In Study 1, 12th grade Mexican American adolescents' romantic relationships were examined by using an innovative person-centered analytic technique, *latent class analysis,* to identify whether adolescents' relationships were unique in their overall *quality.* This was the first study to examine Mexican American adolescent romantic relationships using a quantitative multidimensional approach as most previous research has been qualitative. This was also the first study to examine how Mexican American adolescents' cultural values were associated with their romantic relationships. Results from the first study suggested that adolescents engaged in three unique types of romantic relationships with *higher quality* being most optimal for adolescent adjustment whereas

lower quality was the least optimal. In Study 2, Mexican American marital partners' intra- and inter-individual changes in their acculturative stress, depressive symptoms, and marital quality were examined across seven years via *latent growth modeling.* This was the first study to examine both intra- and inter-individual changes of Mexican American partners' experiences of these three important constructs. Results from Study 2 suggested that partners' experiences overall were more similar than different further highlighting the notion that partners' experiences were interconnected in a reciprocal way (Bowen, 1974) and that researchers need to correctly model interdependence instead of ignoring it. Collectively, these two studies lent a greater understanding to the complexity of Mexican American individuals' romantic relationships at two distinct development periods and provided guidance for prevention and intervention researchers who are aiming to improve adolescent and adult romantic relationships within the Mexican American population.

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Table 1

Latent Class Analyses Model Fit Statistics

	BIC	aBIC	*p* LMR
One-class solution	2982.68	2935.15	—
Two-class solution	2624.44	2526.20	< .001
Three-class solution	**2508.93**	**2359.99**	**< .01**
Four-class solution	2535.52	2335.87	> .05
Five-class solution[a]	—	—	—

Note. $N = 218$. [a] This model did not converge to proper solution so fit statistics are not provided. Bolded text indicates best-fitting solution. aBIC = Adjusted Bayesian information criterion; BIC = Bayesian information criterion; LMR = Lo-Mendell-Rubin.

Table 2

Means and Standard Deviations for Sample and Romantic Relationship Profiles

	Total Sample (N = 218)		Profiles		
	M (SD)	Min.-Max.	*Higher Quality Romantic Relationships* *M* (n = 51)	*Satisfactory Quality Romantic Relationships* *M* (n = 112)	*Lower Quality Romantic Relationships* *M* (n = 55)
Romantic Relationship Characteristics					
Intimacy	4.52 (0.51)	2.71-5.00	4.97^{a}	4.58^{b}	4.02^{c}
Satisfaction	4.45 (0.53)	1.67-5.00	4.83^{a}	4.55^{b}	3.94^{c}
Monitoring	3.35 (0.63)	1.20-5.00	3.92^{a}	3.28^{b}	3.00^{c}
Conflict	2.06 (0.75)	1.00-4.40	1.94^{a}	1.79^{a}	2.74^{b}
Aggression	1.32 (0.44)	1.00-3.33	1.17^{a}	1.15^{a}	1.79^{b}
Cultural Values					
Familism	4.29 (0.46)	2.94-5.00	4.42^{a}	4.27^{ab}	4.20^{b}
Traditional gender roles	2.61 (0.84)	1.00-4.80	2.67^{ab}	2.47^{b}	2.83^{a}
% Male adolescents	46%	—	$46\%^{a}$	$43\%^{b}$	$53\%^{c}$

Note. Means that do not share superscripts are significantly different from one another where $p < .05$.

Table 3

Mean Differences and Effect Sizes for Romantic Relationship Profiles

	Higher Quality vs. Satisfactory Quality		*Higher Quality vs. Lower Quality*		*Satisfactory Quality vs. Lower Quality*	
	Mean difference	Cohen's *d*	Mean difference	Cohen's *d*	Mean difference	Cohen's *d*
Romantic Relationship Characteristics						
Intimacy	0.39	0.76	0.95	> 1.00	0.56	> 1.00
Satisfaction	0.28	0.53	0.89	> 1.00	0.61	> 1.00
Monitoring	0.64	>1.00	0.92	> 1.00	0.28	0.44
Conflict	*ns*	—	-0.80	> 1.00	-0.95	> 1.00
Aggression	*ns*	—	-0.62	> 1.00	-0.64	> 1.00
Cultural Values						
Familism	*ns*	—	0.22	0.47	*ns*	—
Traditional gender roles	*ns*	—	*ns*	–	-0.36	0.43

Note. $d > .20$ = small effect size. $d > .50$ = medium effect size. $d > .80$ = large effect size. *ns* = mean differences between profiles were not significant.

Table 4

*Zero-order Correlations, Means, and Standard Deviations for Romantic Relationship Characteristics, Cultural Values, and Adjustment Variables (*N = *218*)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Intimacy	1.00												
2. Satisfaction	**0.72**	1.00											
3. Monitoring	**0.46**	**0.35**	1.00										
4. Conflict	-0.14	-0.13	-0.01	1.00									
5. Aggression	-0.19*	**-0.20**	-0.03	**0.67**	1.00								
6. Familism	0.16*	0.16*	0.00	-0.04	-0.07	1.00							
7. Traditional	-0.05	-0.02	-0.08	0.12	0.17**	**0.34**	1.00						
8. Future fam.	**0.34**	**0.32**	0.18**	-0.13	-0.19*	0.11	0.02	1.00					
9. Self-esteem	**0.27**	0.22**	0.02	**-0.26**	-0.17**	0.13	-0.07	**0.32**	1.00				
10. Ac. self-efficacy	**0.20**	0.08	0.14*	-0.17*	-0.07	0.14	-0.11	0.17	**0.47**	1.00			
11. Externalizing	**-0.20**	-0.15**	-0.03	0.18*	0.15**	**-0.23**	-0.02	-0.22**	**-0.29**	-0.16*	1.00		
12. Internalizing	-0.06	-0.01	-0.05	0.13	0.09	-0.04	-0.04	-0.22**	**-0.28**	-0.12	**0.51**	1.00	
13. Sexual partners	-0.24**	-0.19	-0.24	-0.02	0.03	-0.02	0.20**	-0.10	-0.09	-0.11	0.22	0.10	1.00
14. Gender	-0.08	-0.04	-0.08	0.01	0.05	0.10	**0.35**	0.05	0.16*	0.07	0.02	**-0.28**	**0.22**
M	4.52	4.45	3.35	2.06	1.32	4.29	2.61	4.14	3.33	4.36	3.81	10.56	1.77
SD	0.51	0.53	0.63	0.75	0.44	0.46	0.84	0.85	0.44	2.30	3.30	7.96	0.59

Note. Sample size ranged from 152-218 for variables; missing data was handled using full information maximum likelihood. Gender was coded 0 = *female*, 1 = *male*. Ac. self-efficacy = Academic self-efficacy; Future fam. = Future family expectations; Traditional = Traditional gender roles.

* $p < .05$. ** $p < .01$. Boldface $p < .001$.

Table 5

Regression Analyses for Associations between Romantic Relationship Profiles and Adjustment Variables (N = 218)

	Model 1		Model 2	
	B (*SE*)	*β* (*SE*)	*B* (*SE*)	*β* (*SE*)
Future family expectations				
Higher quality RR	**0.84 (0.16)**	**0.42 (0.08)**	0.32 (0.13)*	0.16 (0.07)*
Satisfactory quality RR	**0.52 (0.14)**	**0.31 (0.08)**		
Lower quality RR				
R^2	0.13		0.13	
Self-esteem				
Higher quality RR	**0.31 (0.09)**	**0.30 (0.08)**	0.08 (0.08)	0.08 (0.08)
Satisfactory quality RR	0.24 (0.07)**	**0.27 (0.07)**		
Lower quality RR				
R^2	0.07		0.07	
Academic self-efficacy				
Higher quality RR	0.37 (0.11)**	**0.26 (0.08)**	0.22 (0.09)*	0.16 (0.07)*
Satisfactory quality RR	0.15 (0.11)	0.13 (0.09)		
Lower quality RR				
R^2	0.05		0.05	
Externalizing symptoms				
Higher quality RR	-1.53 (0.61)*	-0.20 (0.08)*	-0.34 (0.52)	-0.04 (0.07)
Satisfactory quality RR	-1.18 (0.55)*	-0.18 (0.09)*		
Lower quality RR				
R^2	0.03		0.03	
Internalizing symptoms				
Higher quality RR	-1.97 (1.50)	-0.11 (0.08)	-1.14 (1.24)	-0.06 (0.07)
Satisfactory quality RR	-0.83 (1.37)	-0.05 (0.09)		
Lower quality RR				
R^2	0.01		0.01	
Number of sexual partners				
Higher quality RR	-1.16 (0.57)*	-0.21 (0.08)**	-0.16 (0.29)	-0.03 (0.05)
Satisfactory quality RR	-1.01 (0.57)	-0.22 (0.10)		
Lower quality RR				
R^2	0.04		0.04	

Note. In Model 1, *Lower quality RR* is the reference group. In Model 2, *Satisfactory quality RR* is the reference group. *RR* = Romantic relationships.
* $p < .05$. ** $p < .01$. Boldface $p < .001$.

Table 6

Zero-order Correlations, Means, and Standard Deviations for Acculturative Stress

Variable	1	2	3	4	5	6	7	8
1. T1 Husbands' AS	1.00							
2. T2 Husbands' AS	**0.68**	1.00						
3. T3 Husbands' AS	**0.67**	**0.71**	1.00					
4. T4 Husbands' AS	**0.66**	**0.70**	**0.74**	1.00				
5. T1 Wives' AS	**0.41**	**0.42**	**0.45**	**0.43**	1.00			
6. T2 Wives' AS	**0.38**	**0.45**	**0.41**	**0.41**	**0.77**	1.00		
7. T3 Wives' AS	**0.39**	**0.43**	**0.42**	**0.41**	**0.75**	**0.80**	1.00	
8. T4 Wives' AS	**0.33**	**0.40**	**0.37**	**0.40**	**0.75**	**0.75**	**0.79**	1.00
M	1.99	1.91	1.89	1.93	2.43	2.25	2.24	2.10
SD	0.95	0.88	0.82	0.87	1.20	1.10	1.10	1.03

Note. N = 466. Sample size ranged from 287-466 for variables; missing data was handled using full information maximum likelihood. AS = Acculturative stress; T1= Time 1; T2 = Time 2; T3 = Time 3; T4 = Time 4.
Boldface p <.001.

Table 7

Zero-order Correlations, Means, and Standard Deviations for Depressive Symptoms

Variable		1	2	3	4	5	6	7	8
1. T1 Husbands' DS		1.00							
2. T2 Husbands' DS		**0.60**	1.00						
3. T3 Husbands' DS		**0.63**	**0.65**	1.00					
4. T4 Husbands' DS		**0.46**	**0.58**	**0.63**	1.00				
5. T1 Wives' DS		**0.22**	**0.22**	0.17**	0.13*	1.00			
6. T2 Wives' DS		0.17**	**0.31**	0.16**	0.12**	**0.49**	1.00		
7. T3 Wives' DS		0.18**	0.13*	**0.21**	**0.22**	**0.40**	**0.45**	1.00	
8. T4 Wives' DS		0.12*	0.15**	0.18**	**0.27**	**0.44**	**0.51**	**0.57**	1.00
	M	31.65	31.80	31.70	34.13	33.68	35.25	31.65	34.45
	SD	8.44	8.63	9.24	9.62	9.98	10.93	8.44	10.74

Note. N = 466. Sample size ranged from 302-465 for variables; missing data was handled using full information maximum likelihood. DS = Depressive symptoms; T1= Time 1; T2 = Time 2; T3 = Time 3; T4 = Time 4.
*p <.05. **p <.01. Boldface p <.001.

Table 8

Zero-order Correlations, Means, and Standard Deviations for Marital Quality

Variable		1	2	3	4	5	6	7	8
1. T1 Husbands' MQ		1.00							
2. T2 Husbands' MQ		**0.61**	1.00						
3. T3 Husbands' MQ		**0.55**	**0.65**	1.00					
4. T4 Husbands' MQ		**0.46**	**0.56**	**0.70**	1.00				
5. T1 Wives' MQ		**0.49**	**0.38**	**0.34**	**0.32**	1.00			
6. T2 Wives' MQ		**0.38**	**0.53**	**0.35**	**0.37**	**0.63**	1.00		
7. T3 Wives' MQ		**0.41**	**0.40**	**0.55**	**0.56**	**0.57**	**0.57**	1.00	
8. T4 Wives' MQ		**0.30**	**0.33**	**0.45**	**0.62**	**0.45**	**0.52**	**0.72**	1.00
	M	4.63	4.58	4.50	4.45	4.49	4.41	4.32	4.32
	SD	0.54	0.61	0.67	0.69	0.74	0.78	0.91	0.88

Note. N = 466. Sample size ranged from 297-466 for variables; missing data was handled using full information maximum likelihood. MQ = Marital quality; T1= Time 1; T2 = Time 2; T3 = Time 3; T4 = Time 4.
Boldface p <.001.

Table 9

Zero-order Correlations, Means, and Standard Deviations for Economic Hardship

Variable		1	2	3	4	5	6	7	8
1. T1 Husbands' EH		1.00							
2. T2 Husbands' EH		**0.64**	1.00						
3. T3 Husbands' EH		**0.59**	**0.61**	1.00					
4. T4 Husbands' EH		**0.60**	**0.53**	**0.70**	1.00				
5. T1 Wives' EH		**0.52**	**0.45**	**0.40**	**0.41**	1.00			
6. T2 Wives' EH		**0.43**	**0.56**	**0.40**	**0.39**	**0.60**	1.00		
7. T3 Wives' EH		**0.31**	**0.32**	**0.56**	**0.44**	**0.51**	**0.53**	1.00	
8. T4 Wives' EH		**0.29**	**0.33**	**0.41**	**0.58**	**0.53**	**0.55**	**0.67**	1.00
	M	0.00	0.09	0.09	0.10	0.00	0.00	0.01	0.00
	SD	3.21	3.13	3.36	3.27	3.25	3.15	3.27	3.35

Note. N = 466. Sample size ranged from 306-466 for variables; missing data was handled using full information maximum likelihood. EH = Economic hardship; T1= Time 1; T2 = Time 2; T3 = Time 3; T4 = Time 4.
Boldface $p < .001$.

Table 10

Zero-order Correlations for Acculturative Stress and Depressive Symptoms

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. T1 Husbands' AS	1.00														
2. T2 Husbands' AS	**0.68**	1.00													
3. T3 Husbands' AS	**0.67**	**0.71**	1.00												
4. T4 Husbands' AS	**0.66**	**0.70**	**0.74**	1.00											
5. T1 Wives' AS	**0.41**	**0.42**	**0.45**	**0.43**	1.00										
6. T2 Wives' AS	**0.38**	**0.45**	**0.41**	**0.41**	**0.77**	1.00									
7. T3 Wives' AS	**0.39**	**0.43**	**0.42**	**0.41**	**0.75**	**0.80**	1.00								
8. T4 Wives' AS	**0.33**	**0.40**	**0.37**	**0.40**	**0.75**	**0.75**	**0.79**	1.00							
9. T1 Husbands' DS	**0.27**	**0.30**	**0.27**	**0.23**	0.11*	0.15**	**0.17**	0.12*	1.00						
10. T2 Husbands' DS	**0.27**	**0.33**	**0.37**	**0.29**	**0.16**	**0.19**	**0.20**	**0.24**	**0.60**	1.00					
11. T3 Husbands' DS	**0.26**	**0.30**	**0.33**	**0.25**	0.13*	0.14**	**0.18**	0.17**	**0.63**	**0.65**	1.00				
12. T4 Husbands' DS	**0.22**	**0.27**	**0.31**	**0.33**	0.14**	0.14**	0.16**	0.19**	**0.46**	**0.58**	**0.63**	1.00			
13. T1 Wives' DS	0.16**	**0.19**	**0.18**	0.18**	**0.28**	**0.36**	**0.33**	**0.27**	**0.22**	**0.22**	0.17**	0.13*	1.00		
14. T2 Wives' DS	0.12**	0.16**	0.10*	0.13*	**0.29**	**0.37**	**0.35**	**0.31**	0.17**	**0.31**	0.16**	0.12**	**0.49**	1.00	
15. T3 Wives' DS	0.16**	**0.19**	0.14*	**0.19**	**0.28**	**0.30**	**0.37**	**0.36**	0.18**	0.13*	**0.21**	**0.22**	**0.40**	**0.45**	1.00
16. T4 Wives' DS	0.14**	**0.19**	0.17**	0.17**	**0.28**	**0.34**	**0.34**	**0.34**	0.12*	0.15**	0.18**	**0.27**	**0.44**	**0.51**	**0.57**

Note. N = 466. Sample size ranged from 287-466 for variables; missing data was handled using full information maximum likelihood. AS = Acculturative stress; DS = Depressive symptoms; T1= Time 1; T2 = Time 2; T3 = Time 3; T4 = Time 4.
$^{*}p$ <.05. $^{**}p$ <.01. Boldface p <.001.

Table 11

Zero-order Correlations for Acculturative Stress and Marital Quality

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. T1 Husbands' AS	1.00														
2. T2 Husbands' AS	**0.68**	1.00													
3. T3 Husbands' AS	**0.67**	**0.71**	1.00												
4. T4 Husbands' AS	**0.66**	**0.70**	**0.74**	1.00											
5. T1 Wives' AS	**0.41**	**0.42**	**0.45**	**0.43**	1.00										
6. T2 Wives' AS	**0.38**	**0.45**	**0.41**	**0.41**	**0.77**	1.00									
7. T3 Wives' AS	**0.39**	**0.43**	**0.42**	**0.41**	**0.75**	**0.80**	1.00								
8. T4 Wives' AS	**0.33**	**0.40**	**0.37**	**0.40**	**0.75**	**0.75**	**0.79**	1.00							
9. T1 Husbands' MQ	-0.09	-0.08	-0.08	-0.08	0.00	-0.03	-0.05	-0.04	1.00						
10. T2 Husbands' MQ	-0.01	0.00	-0.03	-0.02	0.08	0.05	-0.02	-0.02	**0.61**	**1.00**					
11. T3 Husbands' MQ	-0.03	0.03	-0.02	0.00	0.09	0.06	-0.01	-0.05	**0.55**	**0.65**	**1.00**				
12. T4 Husbands' MQ	-0.04	-0.05	-0.09	-0.03	0.08	0.03	-0.01	0.00	**0.46**	**0.56**	**0.70**	1.00			
13. T1 Wives' MQ	-0.06	-0.05	-0.08	-0.13*	-0.03	-0.10*	-0.09	-0.07	**0.49**	**0.38**	**0.34**	**0.32**	**1.00**		
14. T2 Wives' MQ	-0.01	0.05	-0.07	-0.04	0.03	0.03	0.00	0.00	**0.38**	**0.53**	**0.35**	**0.37**	**0.63**	**1.00**	
15. T3 Wives' MQ	-0.05	0.03	0.00	-0.09	0.04	0.02	-0.01	-0.03	**0.41**	**0.40**	**0.55**	**0.56**	**0.57**	**0.57**	**1.00**
16. T4 Wives' MQ	-0.02	0.02	-0.05	-0.05	0.01	0.04	-0.03	-0.03	**0.30**	**0.33**	**0.45**	**0.62**	**0.45**	**0.52**	**0.72**

Note. N = 466. Sample size ranged from 287-466 for variables; missing data was handled using full information maximum likelihood. AS = Acculturative stress; MQ = Marital quality; T1= Time 1; T2 = Time 2; T3 = Time 3; T4 = Time 4.
$^{*}p < .05$. $^{**}p < .01$. Boldface $p < .001$.

Table 12

Zero-order Correlations for Acculturative Stress and Economic Hardship

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. T1 Husbands' AS	1.00														
2. T2 Husbands' AS	**0.68**	1.00													
3. T3 Husbands' AS	**0.67**	**0.71**	1.00												
4. T4 Husbands' AS	**0.66**	**0.70**	**0.74**	1.00											
5. T1 Wives' AS	**0.41**	**0.42**	**0.45**	**0.43**	1.00										
6. T2 Wives' AS	**0.38**	**0.45**	**0.41**	**0.41**	**0.77**	1.00									
7. T3 Wives' AS	**0.39**	**0.43**	**0.42**	**0.41**	**0.75**	**0.80**	1.00								
8. T4 Wives' AS	**0.33**	**0.40**	**0.37**	**0.40**	**0.75**	**0.75**	**0.79**	1.00							
9. T1 Husbands' EH	**0.31**	**0.38**	**0.37**	**0.37**	**0.26**	**0.26**	**0.28**	**0.25**	1.00						
10. T2 Husbands' EH	**0.35**	**0.41**	**0.39**	**0.40**	**0.30**	**0.31**	**0.33**	**0.29**	**0.64**	1.00					
11. T3 Husbands' EH	**0.38**	**0.38**	**0.42**	**0.43**	**0.34**	**0.30**	**0.33**	**0.34**	**0.59**	**0.61**	1.00				
12. T4 Husbands' EH	**0.34**	**0.42**	**0.44**	**0.49**	**0.33**	**0.34**	**0.33**	**0.32**	**0.60**	**0.53**	**0.70**	1.00			
13. T1 Wives' EH	**0.25**	**0.31**	**0.33**	**0.30**	**0.35**	**0.39**	**0.41**	**0.38**	**0.52**	**0.45**	**0.40**	**0.41**	1.00		
14. T2 Wives' EH	**0.24**	**0.28**	**0.31**	**0.28**	**0.38**	**0.40**	**0.37**	**0.36**	**0.43**	**0.56**	**0.40**	**0.39**	**0.60**	1.00	
15. T3 Wives' EH	**0.24**	**0.28**	**0.28**	**0.28**	**0.39**	**0.37**	**0.43**	**0.39**	**0.31**	**0.32**	**0.56**	**0.44**	**0.51**	**0.53**	1.00
16. T4 Wives' EH	**0.25**	**0.31**	**0.32**	**0.32**	**0.42**	**0.46**	**0.46**	**0.45**	**0.29**	**0.33**	**0.41**	**0.58**	**0.53**	**0.55**	**0.67**

Note. N = 466. Sample size ranged from 287-466 for variables; missing data was handled using full information maximum likelihood. AS = Acculturative stress; EH = Economic hardship; T1= Time 1; T2 = Time 2; T3 = Time 3; T4 = Time 4. Boldface $p < .001$.

Table 13

Zero-order Correlations for Depressive Symptoms and Marital Quality

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. T1 Husbands' DS	1.00														
2. T2 Husbands' DS	**0.60**	1.00													
3. T3 Husbands' DS	**0.63**	**0.65**	1.00												
4. T4 Husbands' DS	**0.46**	**0.58**	**0.63**	1.00											
5. T1 Wives' DS	**0.22**	**0.22**	0.17**	0.13*	1.00										
6. T2 Wives' DS	0.17**	**0.31**	0.16**	0.12**	**0.49**	1.00									
7. T3 Wives' DS	0.18**	0.13*	**0.21**	**0.22**	**0.40**	**0.45**	1.00								
8. T4 Wives' DS	0.12*	0.15**	0.18**	**0.27**	**0.44**	**0.51**	**0.57**	1.00							
9. T1 Husbands' MQ	**-0.31**	**-0.30**	**-0.35**	-0.16**	-0.19**	-0.11*	-0.11*	-0.09	1.00						
10. T2 Husbands' MQ	**-0.29**	**-0.38**	**-0.28**	-0.17**	-0.10	**-0.18**	-0.12*	-0.11*	**0.61**	1.00					
11. T3 Husbands' MQ	**-0.28**	**-0.29**	**-0.38**	**-0.26**	-0.06	-0.12*	-0.21**	-0.10	**0.55**	**0.65**	1.00				
12. T4 Husbands' MQ	-0.23**	**-0.24**	**-0.30**	**-0.31**	-0.09	-0.08	**-0.25**	-0.20**	**0.46**	**0.56**	**0.70**	1.00			
13. T1 Wives' MQ	-0.14*	-0.18**	-0.18**	-0.14*	**-0.34**	**-0.18**	**-0.22**	**-0.21**	**0.49**	**0.38**	**0.34**	**0.32**	1.00		
14. T2 Wives' MQ	-0.18**	**-0.29**	-0.16*	-0.11	-0.21**	**-0.29**	-0.13*	-0.17**	**0.38**	**0.53**	**0.35**	**0.37**	**0.63**	1.00	
15 T3 Wives' MQ	-0.17*	-0.21**	-0.22**	**-0.23**	-0.14*	-0.14*	**-0.38**	**-0.22**	**0.41**	**0.40**	**0.55**	**0.56**	**0.57**	**0.57**	1.00
16. T4 Wives' MQ	-0.16*	-0.18**	**-0.23**	**-0.35**	-0.11	-0.13*	**-0.28**	**-0.32**	**0.30**	**0.33**	**0.45**	**0.62**	**0.45**	**0.52**	**0.72**

Note. N = 466. Sample size ranged from 287-466 for variables; missing data was handled using full information maximum likelihood. DS = Depressive symptoms; MQ = Marital quality; T1= Time 1; T2 = Time 2; T3 = Time 3; T4 = Time 4.
*p <.05. **p <.01. Boldface p <.001.

Table 14

Zero-order Correlations for Depressive Symptoms and Economic Hardship

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. T1 Husbands' DS	1.00														
2. T2 Husbands' DS	**0.60**	1.00													
3. T3 Husbands' DS	**0.63**	**0.65**	1.00												
4. T4 Husbands' DS	**0.46**	**0.58**	**0.63**	1.00											
5. T1 Wives' DS	**0.22**	**0.22**	0.17**	0.13*	1.00										
6. T2 Wives' DS	0.17**	**0.31**	0.16**	0.12**	**0.49**	1.00									
7. T3 Wives' DS	0.18**	0.13*	**0.21**	**0.22**	**0.40**	**0.45**	1.00								
8. T4 Wives' DS	0.12*	0.15**	0.18**	**0.27**	**0.44**	**0.51**	**0.57**	1.00							
9. T1 Husbands' EH	**0.51**	**0.43**	**0.41**	**0.37**	**0.25**	**0.25**	**0.21**	**0.18**	1.00						
10. T2 Husbands' EH	**0.41**	**0.50**	**0.45**	**0.38**	**0.26**	**0.30**	**0.18**	**0.18**	**0.64**	1.00					
11. T3 Husbands' EH	**0.37**	**0.38**	**0.47**	**0.37**	**0.25**	**0.21**	**0.23**	**0.26**	**0.59**	**0.61**	1.00				
12. T4 Husbands' EH	**0.35**	**0.37**	**0.36**	**0.51**	**0.19**	**0.19**	**0.21**	**0.30**	**0.60**	**0.53**	**0.70**	1.00			
13. T1 Wives' EH	**0.28**	**0.27**	**0.26**	**0.20**	**0.44**	**0.35**	**0.36**	**0.29**	**0.52**	**0.45**	**0.40**	**0.41**	1.00		
14. T2 Wives' EH	**0.25**	**0.28**	**0.20**	**0.21**	**0.38**	**0.50**	**0.34**	**0.37**	**0.43**	**0.56**	**0.40**	**0.39**	**0.60**	1.00	
15. T3 Wives' EH	**0.17**	**0.17**	**0.21**	**0.23**	**0.27**	**0.33**	**0.50**	**0.41**	**0.31**	**0.32**	**0.56**	**0.44**	**0.51**	**0.53**	1.00
16. T4 Wives' EH	**0.18**	**0.22**	**0.20**	**0.28**	**0.29**	**0.38**	**0.42**	**0.48**	**0.29**	**0.33**	**0.41**	**0.58**	**0.53**	**0.55**	**0.67**

Note. N = 466. Sample size ranged from 287-466 for variables; missing data was handled using full information maximum likelihood. DS = Depressive symptoms; EH = Economic hardship; T1= Time 1; T2 = Time 2; T3 = Time 3; T4 = Time 4.
$^{*}p$ <.05. $^{**}p$ <.01. Boldface p <.001.

Table 15

Zero-order Correlations for Marital Quality and Economic Hardship

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. T1 Husbands' MQ	1.00														
2. T2 Husbands' MQ	**0.61**	1.00													
3. T3 Husbands' MQ	**0.55**	**0.65**	1.00												
4. T4 Husbands' MQ	**0.46**	**0.56**	**0.70**	1.00											
5. T1 Wives' MQ	**0.49**	**0.38**	**0.34**	**0.32**	1.00										
6. T2 Wives' MQ	**0.38**	**0.53**	**0.35**	**0.37**	**0.63**	1.00									
7. T3 Wives' MQ	**0.41**	**0.40**	**0.55**	**0.56**	**0.57**	**0.57**	1.00								
8. T4 Wives' MQ	**0.30**	**0.33**	**0.45**	**0.62**	**0.45**	**0.52**	**0.72**	1.00							
9. T1 Husbands' EH	-0.17**	-0.11	-0.08	-0.11	-0.14**	-0.10	-0.07	-0.07	1.00						
10. T2 Husbands' EH	-0.18**	-0.14*	-0.14*	-0.10	-0.18**	-0.15**	-0.13*	-0.11	**0.64**	1.00					
11. T3 Husbands' EH	-0.20**	-0.16**	-0.08	-0.06	-0.17**	-0.12*	-0.11	-0.11	**0.59**	**0.61**	1.00				
12. T4 Husbands' EH	-0.15**	-0.15**	-0.08	-0.15**	-0.15**	-0.12*	-0.09	-0.14*	**0.60**	**0.53**	**0.70**	1.00			
13. T1 Wives' EH	-0.10*	-0.09	-0.09	-0.13*	**-0.21**	-0.14**	-0.13*	-0.14*	**0.52**	**0.45**	**0.40**	**0.41**	1.00		
14. T2 Wives' EH	-0.05	-0.11*	-0.05	-0.02	-0.17**	**-0.24**	-0.14*	-0.14*	**0.43**	**0.56**	**0.40**	**0.39**	**0.60**	1.00	
15. T3 Wives' EH	-0.04	-0.13**	-0.06	-0.12**	-0.15**	**-0.17**	-0.16**	-0.16**	**0.31**	**0.32**	**0.56**	**0.44**	**0.51**	**0.53**	1.00
16. T4 Wives' EH	-0.05	-0.08	-0.01	-0.10	-0.13**	-0.14**	-0.12*	-0.18**	**0.29**	**0.33**	**0.41**	**0.58**	**0.53**	**0.55**	**0.67**

Note. N = 466. Sample size ranged from 287-466 for variables; missing data was handled using full information maximum likelihood. EH = Economic hardship; MQ = Marital quality; T1= Time 1; T2 = Time 2; T3 = Time 3; T4 = Time 4.
*p <.05. **p <.01. Boldface p <.001.

Table 16

Unstandardized Parameter Estimates for Individual Latent Growth Models

	Acculturative Stress				Depressive Symptoms				Marital Quality			
	Husbands		Wives		Husbands		Wives		Husbands		Wives	
Parameter	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Mean intercept	**1.96**	**1.96**	**2.40**	**2.40**	**31.01**	**31.01**	**33.93**	**33.93**	**4.64**	**4.64**	**4.49**	**4.49**
Mean slope	-0.01	-0.01	**-0.04**	**-0.04**	0.10	0.08	0.13	0.12	**-0.02**	**-0.02**	**-0.02**	**-0.02**
Intercept var	**0.58**	**0.60**	**1.10**	**1.14**	**47.45**	**39.39**	**43.86**	**30.36**	**0.19**	**0.19**	**0.36**	**0.34**
Slope var	0.00	0.00	0.00	0.00	0.44*	0.46*	0.48	0.36	0.003**	0.003**	0.01**	0.01**
I-S Cov	-0.01	-0.01	*-0.02***	*-0.03***	-0.96	-1.73	0.33	0.42	0.00	0.00	-0.01	-0.01
Residual var[1]	**0.32**	**0.32**	**0.28**	**0.28**	**26.42**	**24.89**	**51.61**	**48.84**	**0.13**	**0.13**	**0.22**	**0.22**
T1 EH → T1 out	—	0.02	—	-0.01	—	0.41	—	0.68*	—	-0.01	—	-0.04*
T2 EH → T2 out	—	0.00	—	0.00	—	**0.55**	—	**0.81**	—	0.00	—	-0.03**
T3 EH → T3 out	—	0.01	—	0.03	—	**0.75**	—	**0.87**	—	0.00	—	-0.02
T4 EH → T4 out	—	0.03	—	0.02	—	**1.15**	—	0.59*	—	-0.01	—	-0.02
Model fit												
$\chi 2(df)$	5.49(5)	7.80(9)	16.73(8)	23.72(12)	8.41(8)	12.17(12)	13.13(8)	16.07(12)	2.53(8)	8.37(12)	13.95(8)	17.75(12)
RMSEA	0.01	0.00	0.05	0.05	0.01	0.01	0.04	0.03	0.00	0.00	0.04	0.03
95% CI	[.00,.07]	[.00,.05]	[.01,.08]	[.02,.07]	[.00,.06]	[.00,.05]	[.01,.07]	[.00,.06]	[.00,.00]	[.00,.03]	[.00,.07]	[.00,.06]
SRMR	0.02	0.01	0.03	0.02	0.04	0.02	0.05	0.02	0.14	0.09	0.16	0.09

Note. N = 466. Model 1 was the unconditional model, whereas Model 2 was the conditional model. Italicized estimates were uninterpretable due to non-significant slope variance. [1]Husbands' acculturative stress residual variances were free across time (Model 1 and 2 residual variances at T2 = **.22**, T3 = **.17**, T4 = **.20**). CI = Confidence interval; Cov = Covariance; EH = Economic hardship; I = Intercept; out = Outcome; RMSEA = Root-mean-square error of approximation; S = Slope; SRMR = standardized root-mean-square residual; T1= Time 1; T2 = Time 2; T3 = Time 3; T4 = Time 4; var = Variance.
*p <.05. **p <.01. Boldface p <.001.

Table 17

Unstandardized Parameter Estimates for Dyadic Latent Growth Models

	Acculturative Stress				Depressive Symptoms				Marital Quality			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
Intrapersonal estimate	H	W	H	W	H	W	H	W	H	W	H	W
Mean intercept	**1.96**	**2.40**	**1.96**	**2.40**	**31.07**	**33.85**	**31.05**	**33.88**	**4.64**	**4.49**	**4.64**	**4.49**
Mean slope	-0.01	**-0.04**	-0.01	**-0.04**	0.11	0.15	0.09	0.13	**-0.03**	**-0.03**	**-0.03**	**-0.03**
Intercept variance	**0.57**	**1.10**	**0.60**	**1.13**	**47.49**	**43.82**	**39.13**	**30.27**	**0.19**	**0.36**	**0.19**	**0.34**
Slope variance	0.00	0.00	0.00	0.00	0.45**	0.46	0.45*	0.34	0.004**	0.007**	0.004**	0.004**
I-S Covariance	-0.01	*-0.03***	-0.01	***-0.03***	-0.90	0.39	-1.57	0.43	0.00	0.00	0.00	0.00
Residual variance[1]	**0.32**	**0.28**	**0.33**	**0.28**	**26.42**	**51.77**	**24.90**	**49.00**	**0.13**	**0.22**	**0.13**	**0.22**
T1 EH → T1 outcome	—	—	-0.02	-0.01	—	—	0.43	0.68*	—	—	-0.01	-0.04*
T2 EH → T2 outcome	—	—	0.00	0.00	—	—	**0.54**	**0.80**	—	—	0.00	-0.03*
T3 EH → T3 outcome	—	—	0.01	0.03	—	—	**0.74**	**0.90**	—	—	0.00	-0.02
T4 EH → T4 outcome	—	—	0.02	0.02	—	—	**1.09**	0.62*	—	—	-0.01	-0.02
Interpersonal estimate		*r*		*r*		*r*		*r*		*r*		*r*
IH-IW covariance	**0.43**	**0.55**	**0.45**	**0.55**	**18.94**	**0.42**	11.04*	0.32**	**0.16**	**0.60**	**0.15**	**0.60**
IH-SW covariance	*-0.01*	—	*-0.02**	—	*-1.12*	—	*-0.66*	—	0.00	0.05	0.00	0.05
SH-IW covariance	0.00	0.02	-0.01	-0.11	-1.17	-0.27	-1.09	-0.30	0.00	0.04	0.00	0.03
SH-SW covariance	*0.00*	—	*0.00*	—	*0.37**	—	*0.24*	—	0.004**	**0.76**	0.004**	**0.76**
HW res covariance T1	0.02	0.08	0.02	0.08	-1.99	-0.05	-0.67	-0.02	0.05*	0.30*	0.05*	0.29*
HW res covariance T2	0.04	0.15	0.04*	0.15*	**11.67**	**0.32**	**9.53**	**0.27**	**0.06**	**0.36**	**0.06**	**0.35**
HW res covariance T3	0.00	0.00	0.00	0.00	2.64	0.07	4.58	0.13	0.03	0.17	0.03	0.17
HW res covariance T4	0.04	0.16	0.04	0.17	6.01	0.16	4.31	0.12	0.06*	0.36*	0.06*	0.35*

Note. N = 466. Model 1 was the unconditional model, whereas Model 2 was the conditional model. Italicized estimates were uninterpretable due to non-significant slope variance. [1]Husbands' acculturative stress residual variances were free across time (Model 1 and Model 2 - T2 = **.22**, T3 = **.17**, T4 = **.20**). *r* = correlation for interpersonal covariances. EH =Economic hardship; H = Husbands; W = Wives; I = Intercept; S = Slope; T1= Time 1; T2 = Time 2; T3 = Time 3; T4 = Time 4.

*p <.05. **p <.01. Boldface p <.001.

Table 18

Unstandardized Parameter Estimates for Dyadic Parallel Process Models

	Acculturative Stress				Depressive Symptoms				Marital Quality			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
Intrapersonal estimate	H	W	H	W	H	W	H	W	H	W	H	W
Mean intercept	**1.97**	**2.40**	**1.96**	**2.40**	**31.01**	**33.92**	**31.00**	**33.93**	**4.64**	**4.49**	**4.64**	**4.49**
Mean slope	-0.01	**-0.04**	-0.01	**-0.04**	0.14*	0.13	0.12*	0.12	**-0.03**	**-0.03**	**-0.03**	**-0.03**
Intercept variance	**0.54**	**1.10**	**0.52**	**1.12**	**43.33**	**49.25**	**38.08**	**33.16**	**0.19**	**0.36**	**0.19**	**0.34**
Slope variance	0.00[a]	0.00	0.00[a]	0.00	0.37*	0.00[b]	0.41*	0.00[a]	0.003**	0.01**	0.003**	0.01**
I-S Covariance	0.00[a]	*-0.02***	0.00[a]	***-0.03***	-0.90	0.00[b]	-1.13	0.00[b]	0.00	0.00	0.00	0.00
Res variance[1]	**0.35**	**0.28**	**0.36**	**0.28**	**26.42**	**51.77**	**25.41**	**51.77**	**0.13**	**0.22**	**0.13**	**0.22**
T1 EH → T1 outcome	—	—	0.00	-0.01	—	—	0.44*	**0.76**	—	—	-0.01	-0.04*
T2 EH → T2 outcome	—	—	0.01	0.00	—	—	**0.55**	**0.90**	—	—	0.00	-0.03*
T3 EH → T3 outcome	—	—	0.01	0.03	—	—	**0.78**	**1.16**	—	—	0.00	-0.02
T4 EH → T4 outcome	—	—	0.03*	0.02	—	—	**1.10**	**0.95**	—	—	-0.01	-0.02

Note. N = 466. Model 1 was the unconditional model, whereas Model 2 was the conditional model. Italicized estimates were uninterpretable due to non-significant slope variance. [1]Husbands' acculturative stress residual variances were free across time (Model 1/Model 2 - T2 = **.23**, T3 = .**17**, T4 = .**22**/.**21**). [a] = Husbands' acculturative stress slope variance was set to zero. [b] = Wives' depressive symptoms slope variance was set to zero. EH =Economic hardship; H = Husbands; W = Wives; I = Intercept; S = Slope; T1= Time 1; T2 = Time 2; T3 = Time 3; T4 = Time 4.
*p <.05. **p <.01. Boldface p <.001.

Table 19

Interpersonal Intercept-Intercept Correlations for Dyadic Parallel Process Models

Parameter	1	2	3	4	5
1. Husbands' AS					
2. Wives' AS	**0.56/0.56**				
3. Husbands' DS	**0.45/0.39**	**0.20**/0.17*			
4. Wives' DS	**0.28**/0.16*	**0.50/0.38**	**0.31**/0.22**		
5. Husbands' MQ	-0.09/-0.06	0.04/0.06	**-0.53/-0.52**	-0.21**/-0.20*	
6. Wives' MQ	-0.09/-0.02	-0.03/0.04	-0.31**/-0.25*	**-0.42/-0.35**	**0.60/0.60**

Note. N = 466. Unconditional model correlations are presented prior to the slash, whereas conditional model correlations are presented after the slash. Sample size ranged from 287-466 for variables. Missing data was handled using full information maximum likelihood. AS = Acculturative stress; DS = Depressive symptoms; MQ = Marital quality.
* $p < .05$. ** $p < .01$. Boldface $p < .001$.

Table 20

Interpersonal Slope-Slope Correlations for Dyadic Parallel Process Models

Parameter	1	2	3	4	5
1. Husbands' AS					
2. Wives' AS	—				
3. Husbands' DS	—	—			
4. Wives' DS	—	—	—		
5. Husbands' MQ	—	—	**-0.61/-0.57**	—	
6. Wives' MQ	—	—	-0.42/-0.31	—	**0.72/0.73**

Note. N = 466. Unconditional model correlations are presented prior to the slash, whereas conditional model correlations are presented after the slash. A '—' indicates an estimate could not be estimated/uninterruptable due to non-significant slope variance. Sample size ranged from 287-466 for variables. Missing data was handled using full information maximum likelihood. AS = Acculturative stress; DS = Depressive symptoms; MQ = Marital quality.

$^{*}p < .05$. $^{**}p < .01$. Boldface $p < .001$.

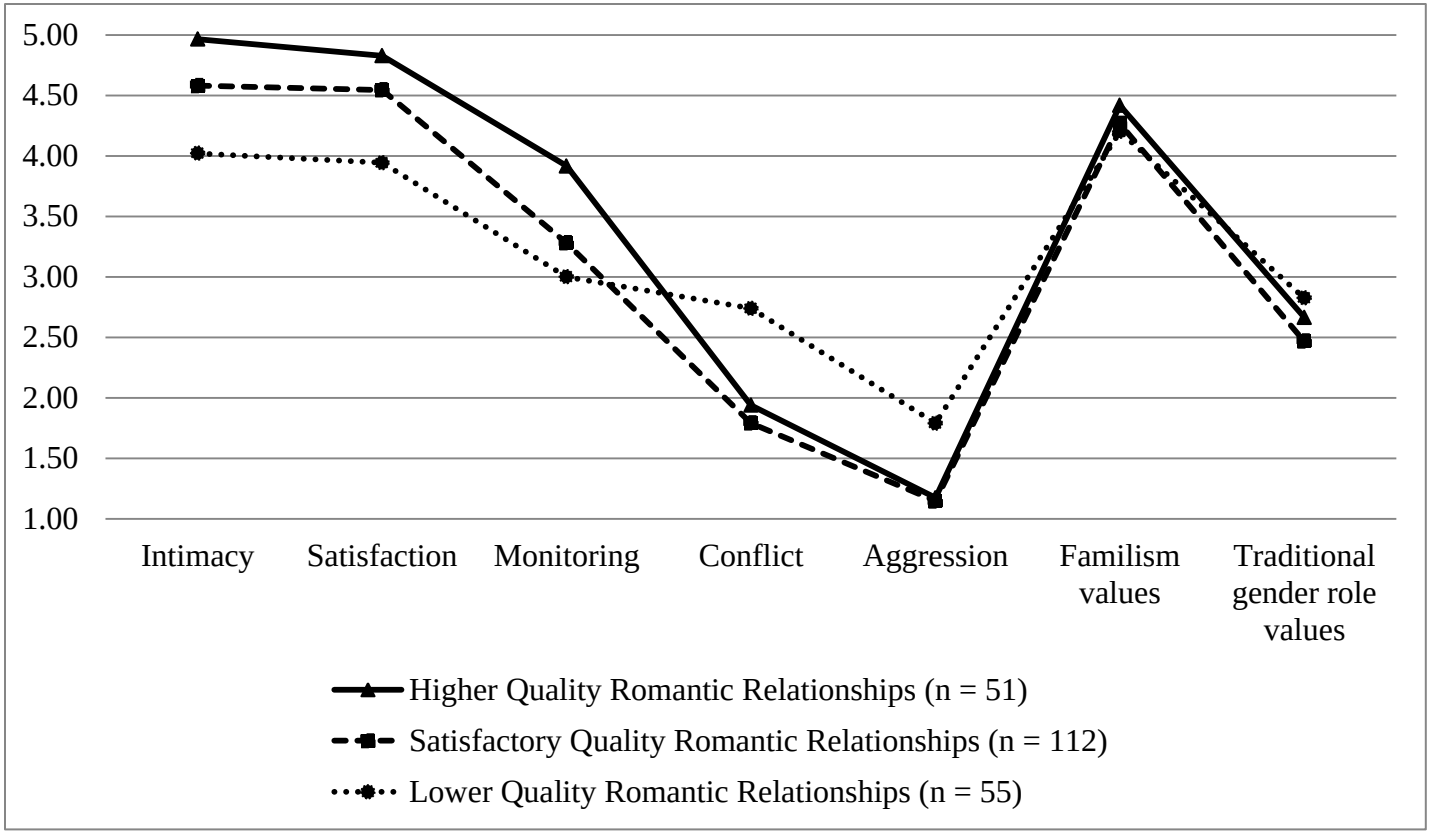

Figure 1. Means for Mexican American adolescent romantic relationship profiles (*N* = 218).

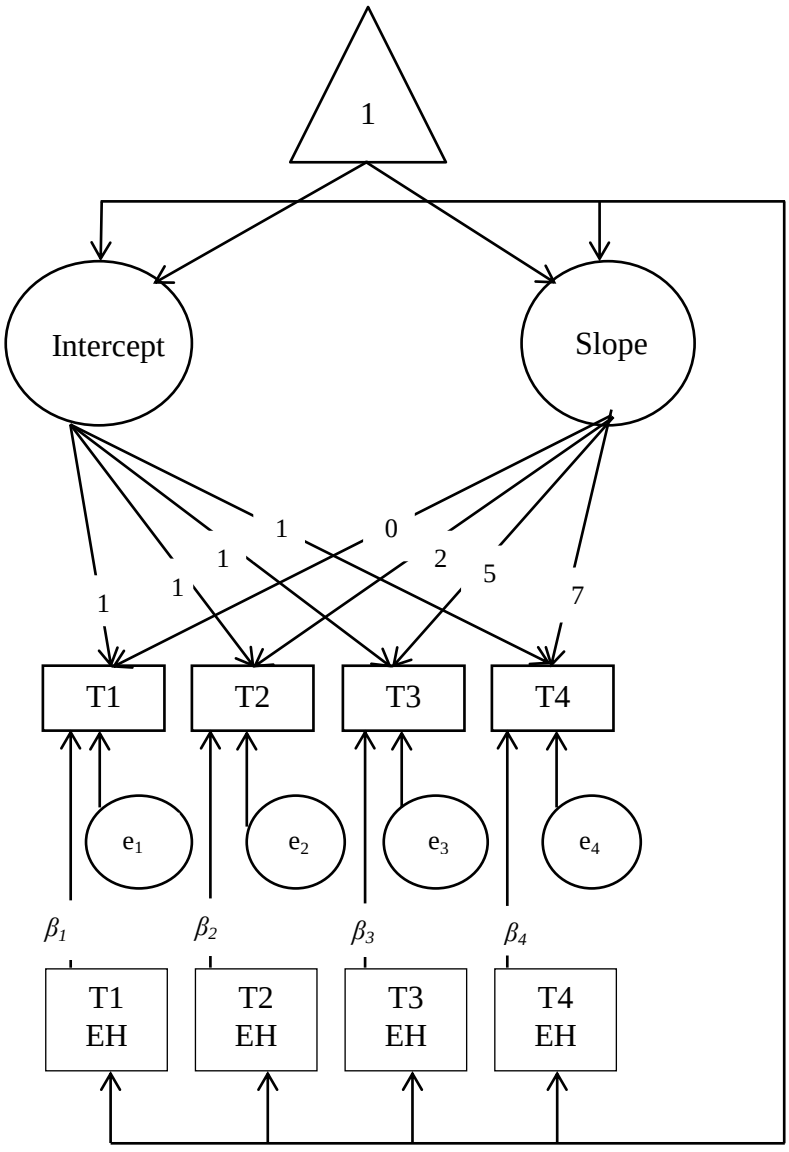

*Figure 2.*Conditional individual latent growth model. 0 = Year 0 at Time 1; 2 = Year 2 at Time 2; 5 = Year 5 at Time 3; 7 = Year 7 at Time 4; T1, $_1$ = Time 1; T2, $_2$ = Time 2; T3, $_3$ = Time 3; T4, $_4$ = Time 4; $_e$ = residual variance; EH = economic hardship.

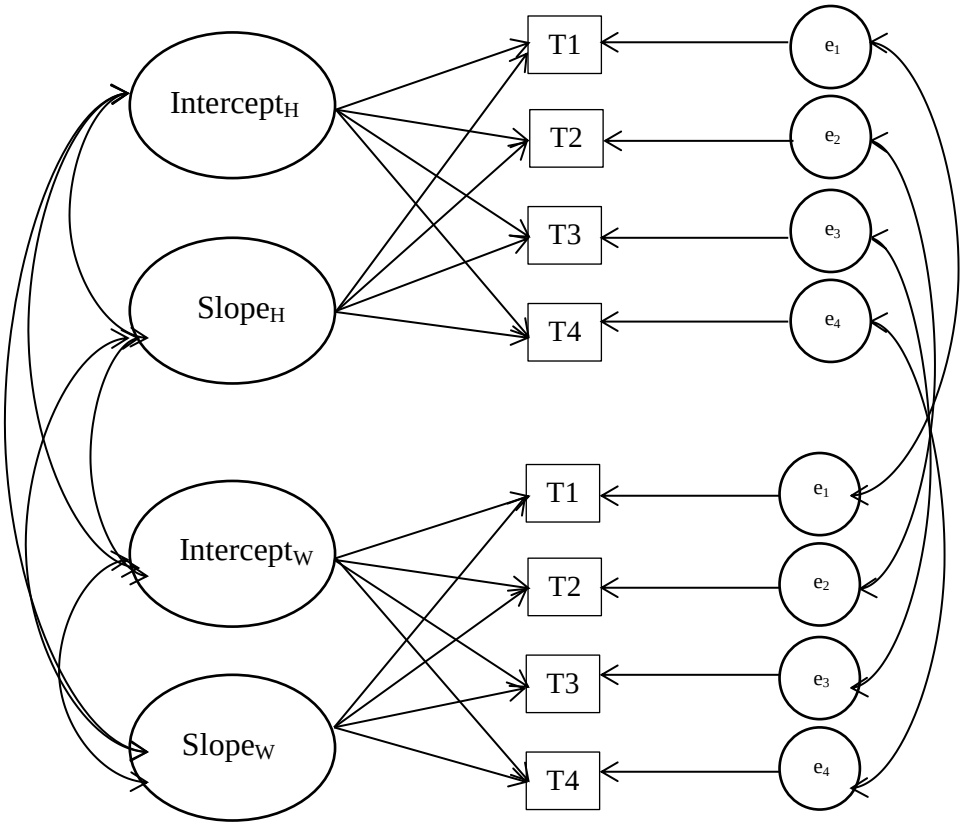

Figure 3. Unconditional dyadic growth model. Intercept loadings are fixed at 1, slope loadings are T1 = 0, T2 = 2, T3 = 5, T4 = 7. H = husbands; W = wives; T1, $_1$ = Time 1; T2, $_2$ = Time 2; T3, $_3$ = Time 3; T4, $_4$ = Time 4; $_e$ = residual variance.

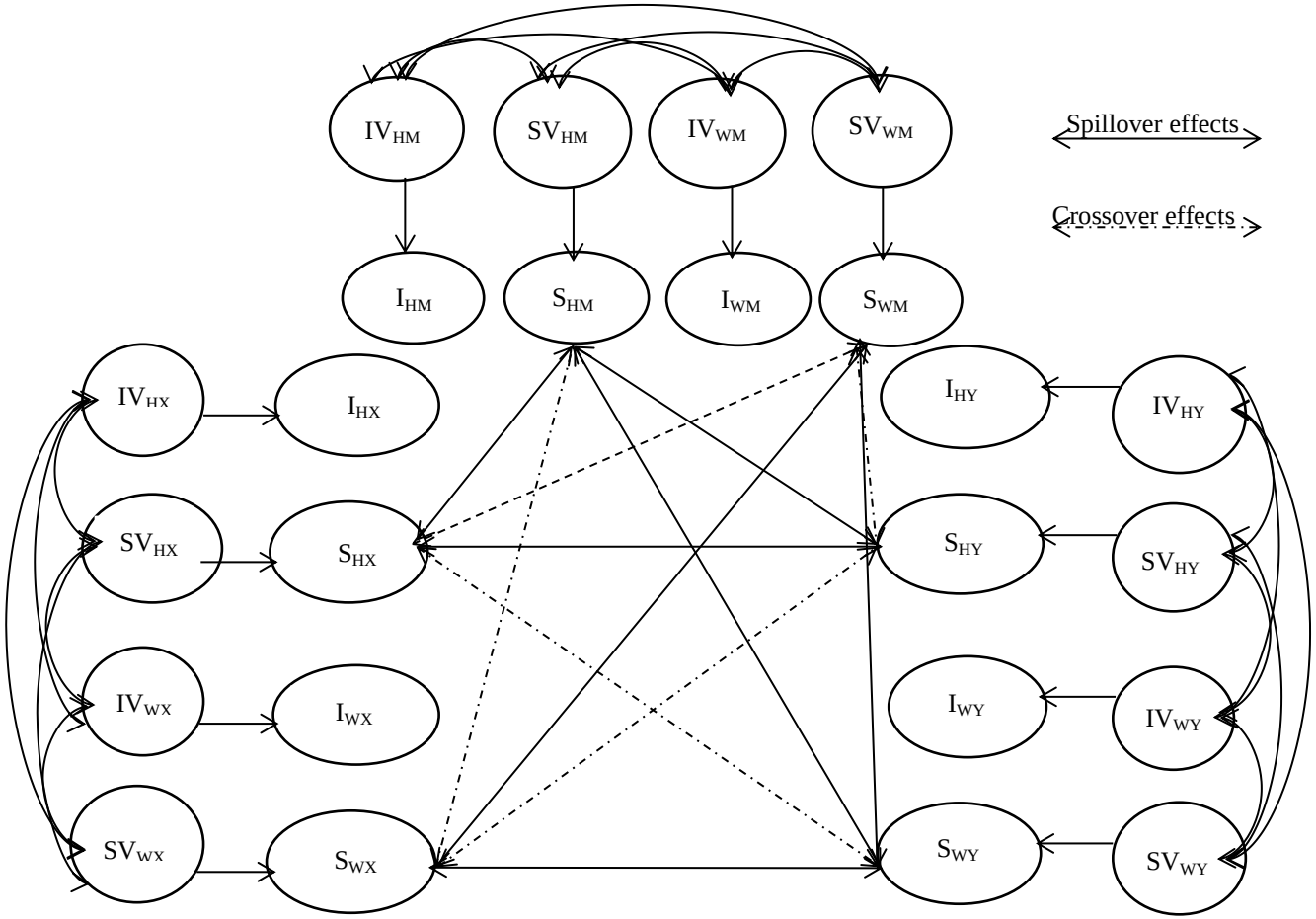

Figure 4. Unconditional dyadic parallel process model. Intercepts and slopes within and between constructs were allowed to covary. Modeled intrapersonal intercept-intercept covariances, intrapersonal residual variances, interpersonal intercept-intercept covariances, interpersonal intercept-slope covariances, and interpersonal residual covariances are not shown to ease interpretability. I = intercept; S = slope; V = variance; $_H$ = husbands; $_W$ = wives; $_X$ = acculturative stress; $_M$ = depressive symptoms; $_Y$ = marital quality.

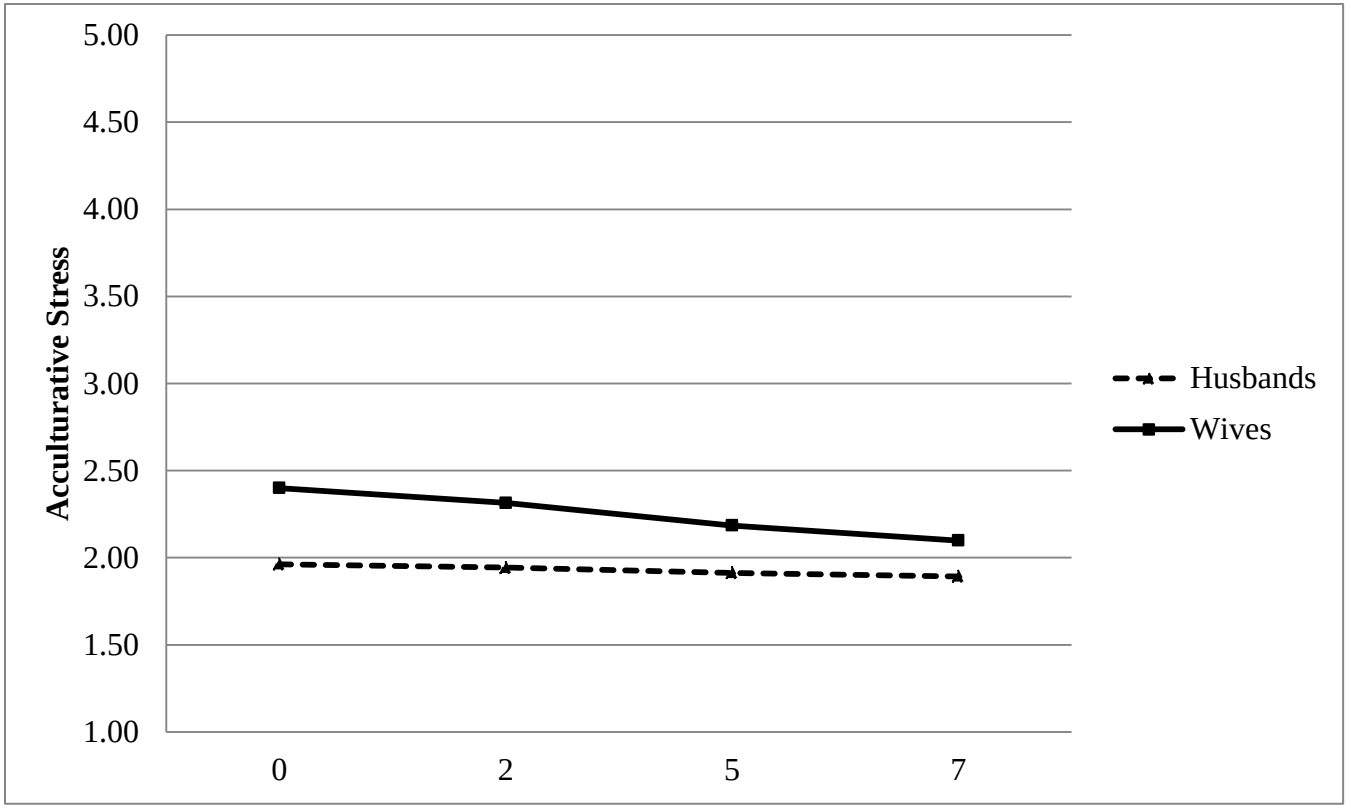

Figure 5. Conditional estimated means for partners' acculturative stress. 0 = Year 0 at Time 1; 2 = Year 2 at Time 2; 5 = Year 5 at Time 3; 7 = Year 7 at Time 4.

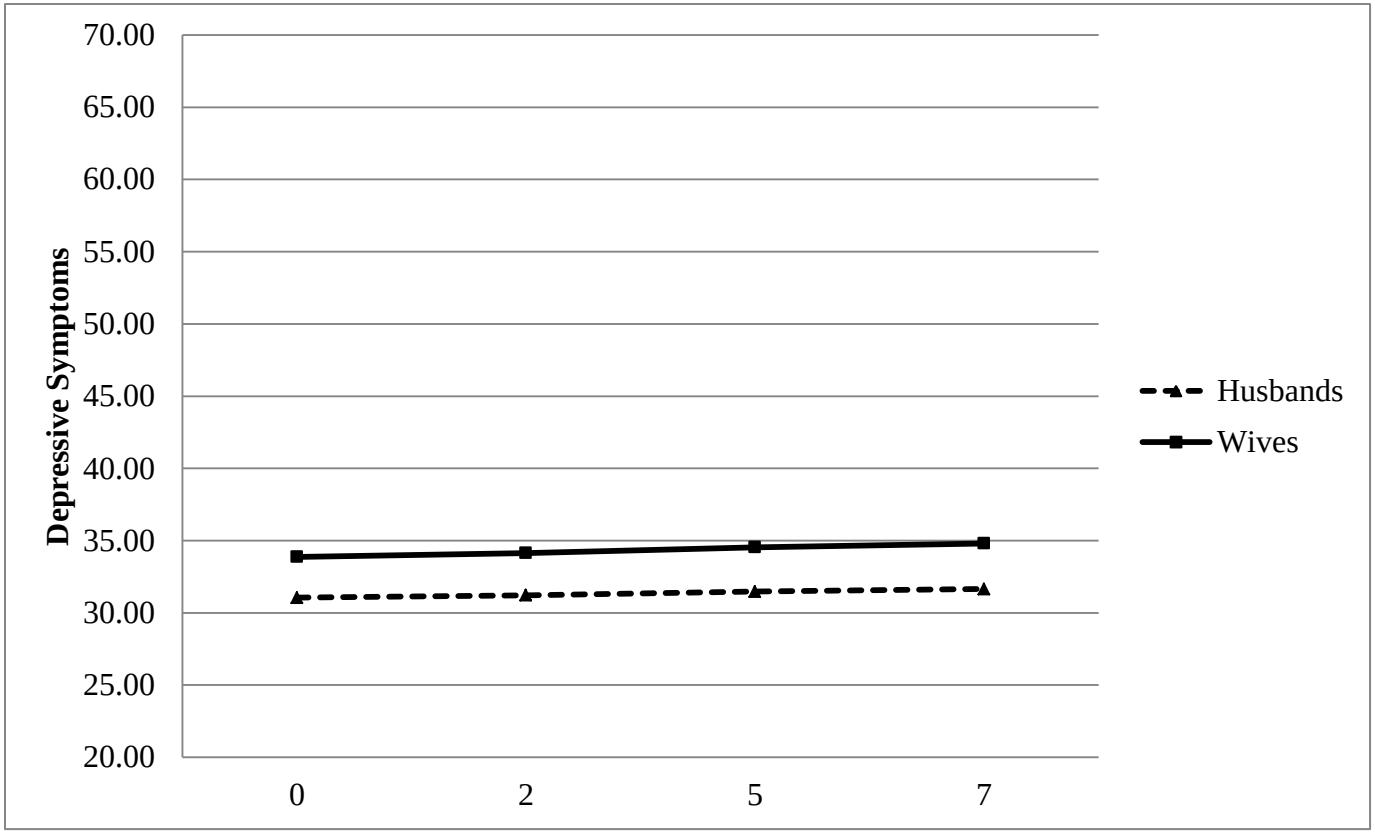

Figure 6. Conditional estimated means for partners' depressive symptoms. 0 = Year 0 at Time 1; 2 = Year 2 at Time 2; 5 = Year 5 at Time 3; 7 = Year 7 at Time 4.

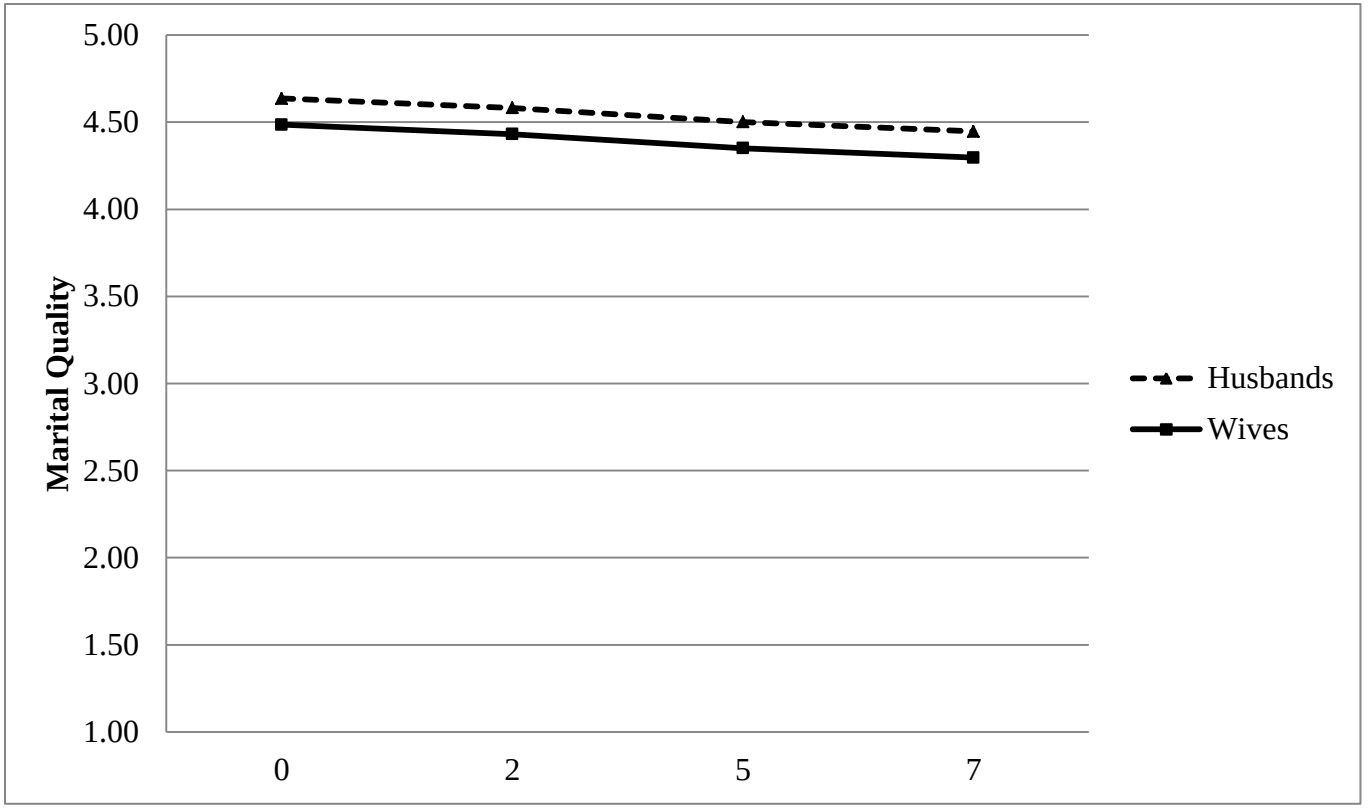

Figure 7. Conditional estimated means for partners' marital quality. 0 = Year 0 at Time 1; 2 = Year 2 at Time 2; 5 = Year 5 at Time 3; 7 = Year 7 at Time 4.