Decomposing associations between acculturation and drinking in Mexican Americans

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Abstract

Background—Acculturation to life in the United States is a known predictor of Hispanic drinking behavior. We compare the ability of 2 theoretical models of this effect – sociocultural theory and general stress theory – to account for associations between acculturation and drinking in a sample of Mexican Americans. Limitations of previous evaluations of these theoretical models are addressed by using a broader range of hypothesized cognitive mediators and a more direct measure of acculturative stress. In addition, we explore nonlinearities as possible underpinnings of attenuated acculturation effects among males.

Methods—Respondents (N = 2,595, current drinker N = 1,351) were interviewed as part of 2 recent multistage probability samples in a study of drinking behavior among Mexican Americans in the United States. The ability of norms, drinking motives, alcohol expectancies, and acculturation stress to account for relations between acculturation and drinking outcomes (volume and heavy drinking days) were assessed with a hierarchical linear regression strategy. Nonlinear trends were assessed by modeling quadratic effects of acculturation and acculturation stress on cognitive mediators and drinking outcomes.

Results—Consistent with previous findings, acculturation effects on drinking outcomes were stronger for females than males. Among females, only drinking motives explained acculturation associations with volume or heavy drinking days. Among males, acculturation was linked to increases in norms, and norms were positive predictors of drinking outcomes. However, adjusted effects of acculturation were non-existent or trending in a negative direction, which counter-acted this indirect normative influence. Acculturation stress did not explain positive associations between acculturation and drinking.

Conclusions—Stress and alcohol outcome expectancies play little role in the positive linear association between acculturation and drinking outcomes, but drinking motives appears to at least partially account for this effect. Consistent with recent reports, these results challenge stress models of linear acculturation effects on drinking outcomes and provide (partial) support for sociocultural models. Inconsistent mediation patterns – rather than nonlinearities – represented a more plausible statistical description of why acculturation-drinking associations are weakened among males.

Keywords

Mexican Americans; Acculturation

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INTRODUCTION

In the United States, Mexican Americans are at higher risk for risky drinking patterns (Ramisetty-Mikler et al., 2010), alcohol use disorders (Caetano et al., 2008a), and alcohol-related accidents (Caetano et al., 2008b). Acculturation – broadly understood as the adoption of the cultural traditions and values of the host society by immigrant groups – is a theoretical construct that has been used to explain some of these findings. Acculturation is generally a positive predictor of drinking variables and associated problems, but gender qualifications to this effect are pervasive in studies that explicitly examine gender interactions or gender-specific models. Females typically show much stronger positive relations, while males typically show weaker relations or none at all (e.g., Caetano, 1987b; Caetano et al., 2008a; Gilbert, 1987; Markides et al., 1990; Zemore, 2005; for a review, see Zemore, 2007).

Sociocultural theory (Room, 1991, 1992) and social stress theory (Graves, 1967; Madsen, 1964) have been used to explain positive associations between acculturation and alcohol consumption. In sociocultural models, the process of acculturation involves adapting to a "cultural matrix" of factors in the host society that include a wide range of known behavioral antecedents, such as attitudes, norms, beliefs/expectancies, values, and motives (Burnam, 1989; Caetano, 1987a, b, c; Corbett et al., 1991; Markides et al., 1990; Neff et al., 1987). To the extent that changes in these variables support drinking behavior in the host society (e.g., more liberal attitudes towards drinking), the process of acculturating should be linked to increases in drinking behavior. Several components of this model have been extensively investigated. For example, acculturation has been shown to relate positively to alcohol outcome expectancies (Marín et al., 1993), alcohol attitudes/norms (Caetano, 1987a; Caetano and Medina-Mora, 1988), and reasons (i.e., motives) for drinking (Caetano and Medina Mora, 1990). For females, Zemore (2005) found evidence of a mediating role for norms in the association between acculturation and alcohol volume consumed. A brief digression concerning terminology is relevant here: Norms are typically measured in this literature with items concerning amounts of alcohol that the *individual* considers acceptable (personally or for others) to consume in various circumstances. That is, because they are not directly indexing descriptive or injunctive norms of the individual's peers (or perceived subjective variations on these measures), they arguably are attitudinal in nature. Because more liberal attitudes or norms toward drinking theoretically should have similar directional effects on drinking behavior, for consistency with the previous literature, we continue to describe such measures as normative.

According to stress models, problems occur when stressors (e.g., language problems, discrimination) overwhelm the resources individuals have for responding positively to the challenges they encounter during acculturation. For example, Gil et al. (1994) reported that both acculturation and acculturative stress were associated with drinking and drug use in a sample of high school students in Florida, and acculturative stress has been shown to predict alcohol and drug dependence (Ehlers et al., 2009). Gil et al. (2000) also found a relatively weak mediating role of stress in an adolescent sample. However, studies have not always confirmed these relations. In 1 of the few formal mediational analyses of the stress model in adult samples, a measure of psychological distress did not mediate acculturation-drinking associations (Zemore, 2005). Individual components of this theoretical model – such as effects of acculturation on stress or of stress on alcohol consumption – have not been consistently confirmed either (Berry, 1997, 2003; Cappell and Herman, 1972; Gilbert and Cervantes, 1986; Kail et al., 2000; for a review, see Zemore, 2007).

There are several limiting properties of work conducted under these 2 theoretical frameworks. First, as noted by Zemore (2007), no studies have examined whether measures of *acculturation* stress account for acculturation-drinking associations in adults. Zemore

(2005) and Kail et al. (2000) used measures of depression as an index of stress, and although Gil et al. (2000) employed a direct measure of acculturation stress, it was with an adolescent sample. It is possible that indices that more closely reflect the types of stresses experienced by adults throughout the acculturative process would provide stronger support for stress models. Second, although sociocultural frameworks predict that a variety of cognitive variables (such as alcohol expectancies, norms, and drinking motives) should account for acculturation's effect on drinking, this prediction has only been tested for norms (Zemore, 2005). Finally, nonlinear patterns in the relation between acculturation and drinking have been documented several times (Caetano, 1987b; Caetano and Clark, 2003; Caetano et al., 2008c), and Zemore (2005) found trending (but non-significant) quadratic effects of acculturation on drinking among males. Although they have been proposed as possible underpinnings of weak and inconsistent findings for males (Zemore, 2007), there have been few attempts to quantify and test nonlinearities in the overall association between acculturation and drinking or at other relevant points in proposed theoretical pathways.

There are 3 specific objectives of the present study that explicitly address each of these limiting properties. First, we re-examine the theoretical models compared in Zemore et al. (2005) using a more direct measure of acculturation stress. Although we expect acculturation effects on drinking to be primarily accounted for by cognitive pathways, we also expect stress to partially explain these effects due to our use of a more direct measure of that construct. Second, we provide a more complete assessment of the sociocultural theory of acculturation-drinking relations by broadening the assessed range of potential cognitive mediators. In addition to normative pathways, we also examine alcohol expectancies and drinking motives. Because motives are more proximal to behavior than other cognitive variables (Kuntsche et al., 2007), we expect motives to relate more strongly to drinking behavior. Based on previous research suggesting a closer link between components of acculturation and cognitions involving valuation (Mills and Caetano, 2010; as opposed to those involving objective beliefs, such as expectancies), we also expect motives and normative pathways to better account for linear acculturation-drinking associations than expectancy pathways. To accommodate pervasive findings of gender qualifications to acculturation-drinking associations, we present all models separately for males and females and expect all effects to be more pronounced for females. Finally, we explore the possibility that nonlinear trends might underlie the attenuated associations between acculturation and drinking that are commonly observed among males.

MATERIALS AND METHODS

Sample

Respondents (N = 2,595; current drinker N = 1,351) were interviewed as part of 2 recent multistage probability samples that were merged to examine differences in drinking behavior among Mexican Americans living on the U.S.-Mexico border with the drinking behavior of Mexican Americans living in non-border areas of the U.S. The 2006 Hispanic Americans Baseline Alcohol Survey (HABLAS) sampled respondents from 5 metropolitan areas of the U.S.: Miami, New York, Philadelphia, Houston, and Los Angeles, with each of these areas selected due to their high concentration of Hispanics. Mexican American respondents from this metropolitan, non-border sample (N = 1,288; current drinker N = 691) are included in the present analyses. Respondents on the border (N = 1,307; current drinker N = 660) were sampled from border regions of 4 U.S.-Mexico border states: Texas, New Mexico, Arizona, and California. Both studies sampled the adult population 18 years or older, and the survey response rates for HABLAS and the border sample were 76% and 67%, respectively. The questionnaire and methodology were identical in both studies. The questionnaire was pre-tested in English, translated into Spanish, and back-translated to English. Trained bilingual interviewers conducted Computer Assisted Personal Interviews at

the respondents' home that lasted about 1 hour. The present analyses are restricted to current drinkers (who had at least 1 standard drink of alcohol in the last 12 months).

Measurements

Demographic variables—Covariates included continuous age in years; marital status (coded 1. married/living with spouse/living with someone, 2. married not living with spouse/ legally separated/divorced, 3. widowed, and 4. never married/never lived with someone); education (coded 1. < high school, 2. high school diploma/GED, and 3. some college, technical/vocational school, or beyond); and total household income with 12 possible responses ranging from <$4,000 to >$100,000. For missing income data (15.2%), values were multiply imputed prior to analyses (see Statistical Analyses below; see also Caetano et al., 2009 for additional details).

Alcohol variables—Alcohol consumption was estimated from quantity and frequency questions using a "graduated frequencies" approach (Clark and Hilton, 1991; Greenfield and Kerr, 2008), where respondents estimate the frequency of consuming several distinct quantities of alcohol. For volume, these pairs of estimates are multiplied and the resulting products are summed to provide an estimate of the number of standard drinks consumed in the last year. Following the latest recommendations from a recent validity study (Greenfield et al., 2009), a downward capping algorithm (as opposed to a prorating algorithm: e.g., Gmel et al., 2006) was used for respondents where the implied frequency of consuming all quantities exceeded 7 days per week. In order to examine distinct patterns of drinking, a measure of the frequency of heavy drinking was also computed and corresponds to the number of times in the last 12 months that the respondent consumed at least 4 (females) or 5 (males) drinks in 1 day. Because of positive skew, these variables were log-transformed for analyses.

Acculturation, acculturation stress, and cognitive mediators—The previously validated measure of acculturation developed by Caetano (1987b) and used in the Zemore et al. (2005) study was used in the present analyses. Items covered daily use of and ability to speak, read, and write English and Spanish; preference for media (books, radio, and TV) in English or Spanish; ethnicity of people with whom respondents interact with at church, at parties, the neighborhood in which respondents currently live and lived while growing up; and questions about values thought to be characteristic of the Hispanic lifestyle. The scale exhibited a unifactor structure and had acceptable reliability (Cronbach's $\alpha = 0.90$). Acculturation stress was measured with 11 Likert-type items covering common stresses experienced in the process of acculturation, such as "it bothers me that family members I am close to do not understand my new values," "it bothers me when people pressure me to assimilate or live the Anglo-American way," and "close family members and I have conflicting expectations about my future." This measure also demonstrated a unifactor structure with acceptable reliability (Cronbach's $\alpha = 0.89$). Personal norms regarding acceptable levels of drinking were assessed with 9 Likert type items covering levels of drinking (none, 1 or 2 drinks, feel the effects, or drunk) that the respondent considered acceptable in various circumstances, such as "with friends at home," "with co-workers out for lunch," "for a man at a bar with his friends," and "for a woman at a bar with her friends." This measure also had a unifactor structure with acceptable reliability (Cronbach's $\alpha = 0.85$). Alcohol outcome expectancies were assessed with a measure developed by Marín et al. (1993). Previous psychometric analyses we have conducted on this measure (Mills et al., under review) have confirmed Marín's exploratory 3-factor solution with subscales reflecting emotional/behavioral impairment, emotional fluidity, and social extroversion. We use the 4-item emotional fluidity subscale (Cronbach's $\alpha = 0.80$) in the present analyses, as it exhibited the strongest positive correlation with drinking outcomes ($r = .27$ and $r = .25$

with volume and heavy drinking days, respectively). Representative Likert-type items were "become more relaxed," "become more friendly," and "become more romantic." Finally, drinking motives were assessed with 9 Likert-type items covering reasons for drinking, such as "it's a good way to celebrate," "drinking helps me to forget about my worries and problems," and "I like the feeling of getting high or drunk." This measure exhibited a unifactor structure with acceptable reliability (Cronbach's $\alpha = 0.84$).

Statistical Analyses

Following preliminary bivariate comparisons and psychometric analyses to establish dimensionality and reliability of multi-item measures, we first explored whether there were differences in anticipated effects by location. Previous data have suggested differences in drinking behavior between border and non-border Mexican Americans (Caetano and Medina-Mora, 1988; Caetano et al., 2008c; Wallisch and Spence, 2006). However, because these groups share common cultural backgrounds and national and ethnic identities, acculturation effects on drinking may nevertheless behave consistently across locations. Consistent with this, acculturation level did not differ by location, and interactions involving location were not significant in preliminary runs of models discussed below. Consequently, all reported analyses were collapsed across border and non-border respondents.

Following Zemore (2005), a hierarchical linear regression strategy (Baron and Kenny, 1986) was used to examine how well hypothesized mediators explained acculturation-drinking associations in gender-specific models for volume and heavy drinking. All models controlled for age, marital status, income, and education. For income, 10 imputed values were generated using SAS PROC MI based on the respondent's employment status, education, marital status, household size, metropolitan area of residence, age, Hispanic nationality, whether the respondent was born in the United States, how long the respondent had lived in the United States, acculturation, whether the respondent had driven an automobile in the past year, and annual wage and salary data. Estimates from analyses on each of the 10 imputed datasets were combined using Rubin's rules (Rubin, 1987). All regression models were fit with Stata 11.2 (StataCorp., 2009). For all analyses, data were weighted to correct for unequal probabilities of selection into the sample, and a poststratification weight was applied to correct for nonresponse and adjust the sample to known population distributions on demographic variables.

There were 3 stages of model testing. First, we regressed the 2 drinking outcomes on acculturation to establish overall effects. Second, stress, norms, expectancies, and motives were each regressed on acculturation. Third, drinking outcomes were regressed on acculturation, adjusting for stress, norms, expectancies, and motives in separate models. This step establishes the effect of hypothesized explanatory variables on drinking outcomes, and by examining the reduction in the magnitude of the coefficient for acculturation, the extent to which these variables account for that association. Following Zemore (2005), the goal here is to provide a nuanced quantitative characterization of each explanatory variable's ability to attenuate acculturation effects on drinking (rather than to develop a comprehensive regression model). Finally, to explore whether any findings from analyses of linear acculturation effects might be a consequence of underlying nonlinearities, 2 sets of models were examined that tested quadratic effects of acculturation on stress, cognitive mediators, and drinking outcomes, and quadratic effects of acculturation stress on drinking outcomes.

RESULTS

Genders did not differ in mean age (females: 36, SE = 1.1; males: 37, SE = .80), marital status (females: 54%; males: 61% married), or mean annual income (females: 31K, SE = 2.3; males: 32K, SE = 2.3), but females were more likely to have a college education

(females: 44%; males: 28%). Unsurprisingly, there were sizable gender differences in mean drinking levels: Males consumed an average of 8.5 drinks per week (SE = .66) versus 1.4 drinks per week for females (SE = .24), and males had an average of 35 heavy drinking days in the past year (SE = 3.3) versus 7.8 for females (SE = 1.6).

Table 1 provides effects of acculturation on stress and cognitive variables across genders. Acculturation was negatively related to acculturation stress for both males and females, but patterns of effects on cognitive variables differed. Acculturation was a positive predictor of drinking motives among females, and it was a positive predictor of drinking norms among males. Acculturation did not predict emotional fluidity expectancies in either gender.

Overall effects of acculturation on drinking outcomes by gender can be found in the top row of Table 2. Consistent with previous findings, acculturation was positively related to volume and to the frequency of heavy drinking among females, but not among males. Subsequent rows in Table 2 provide results from final steps of these analyses. First, acculturation stress did not predict drinking outcomes for either males or females. Consequently, although acculturation predicted stress levels, *linear* effects of acculturation on drinking do not appear to involve acculturation stress. Second, all three cognitive variables were positive linear predictors of both drinking outcomes, among both males and females.

Taking stock of the results to this point, acculturation positively influences female drinking outcomes and drinking motives, and motives continue to predict drinking outcomes in female models after adjusting for acculturation. In the latter models, acculturation effects are decreased for volume and drop out of significance for heavy drinking. These findings suggest that drinking motives at least partially account for acculturation-drinking associations among females. Among males, note that although there was no overall effect of acculturation on drinking outcomes, males did show acculturation effects on norms (Table 1), and norms also independently predicted both male drinking outcomes (Table 2). Furthermore, in the male model adjusting for both acculturation and norms, acculturation effects are negative. Although not significantly different from zero, they are substantially different from the positive trends seen in the unadjusted male models and have a net effect of attenuating the association between acculturation and drinking among males.

Finally, results from exploratory analyses on quadratic trends are provided in Table 3. Quadratic coefficients were generally non-significant with 3 exceptions. First, there was a positive quadratic effect of acculturation on acculturation stress among males. However, inspection of predicted values from this model (not shown) revealed that the overall relation between acculturation and stress was still monotonic: Stress levels were highest for males at low levels of acculturation, but decreased to similar levels at moderate and high levels of acculturation. Second, among females, there were negative quadratic effects of stress on the frequency of heavy drinking. The overall trend was nonmonotonic, with a peak in heavy drinking frequency at intermediate levels of acculturation stress.

DISCUSSION

The present study investigated 2 well-known theoretical accounts of acculturation effects on drinking. Consistent with our predictions and previous findings, overall acculturation effects on drinking outcomes were positive for females and non-significant for males. In particular, drinking motives partially explained acculturation's effect on female volumetric intake. Motives also completely accounted for acculturation's effect on female heavy drinking frequency, although the acculturation effect maintained a positive trend in the motive-adjusted model.

Other predictions received mixed support. As expected, female acculturation-drinking associations were primarily explained by cognitive variables, but the effect was restricted to drinking motives. Expectancies and – in contrast to past findings (e.g., Zemore, 2005) – norms did not account for female acculturation effects on drinking variables. Although a role of expectancies in acculturation-drinking associations has received little attention in current research, differences in measures may be relevant to the findings on norms. Zemore (2005) used a measure that contained 6 gender-specific items querying the amounts of alcohol consumption deemed acceptable for men and women at 3 age levels. Our measure was similar in item response scales and overall reliability, but in addition to 2 gender-specific items, the remaining (majority) of items covered norms that were not explicitly attributed to males or females. Such gender-specificity is not predicted by sociocultural theory (which suggests that *any* norms relevant to alcohol use should be salient), and in conjunction with Zemore's (2005) findings, the results suggest potential limits to the types of norms that may underlie female acculturation effects on volume measures. Contrary to our expectations, the use of a more direct measure of acculturation stress did not provide stronger support for a role of stress in acculturation-drinking relations.

Exploratory analyses revealed nonlinearities in the relation between acculturation and acculturation stress among males, and between acculturation stress and heavy drinking frequency among females. Although these are interesting results in themselves, the form of these nonlinearities did not contribute to overall acculturation-related increases in drinking behavior. Attenuated relations between acculturation and drinking among males instead appeared to be due in part to opposing direct and indirect influences of acculturation on drinking. Acculturation was linked to increases in drinking through an indirect route – positive effects on norms and positive effects of norms on drinking – but acculturation's independent influence on drinking was nonexistent or trending in a negative direction. These opposing influences canceled each other out to an extent that rendered unadjusted associations non-significant for males. For example, whereas adjusting for motives induced a 20% (.36 vs. .29) and 25% (.44 vs. .33) decrease in acculturation coefficients in the 2 female drinking models, adjusting for norms induced decreases of over 100% (.17 vs. -.03) and 200% (.14 vs. -.18) in the acculturation coefficients for the 2 male drinking models. This is approaching an inconsistent mediation pattern (MacKinnon et al., 2007) and contributes to attenuated overall associations for males in unadjusted models. Future studies should continue to examine this possibility, as it has the potential to explain gender qualifications to acculturation effects that are routinely found in the literature.

Limitations

The analyses were conducted on a cross-sectional dataset, so no causal inferences can be drawn from these results. However, specified models were theory-driven, which should at least partially address these concerns. Although our study found support for cognitive explanations of relations between acculturation and drinking behavior, there are substantial amounts of variation in drinking outcomes that remains unexplained. Non-cognitive factors that were not examined in the present study may account for this. In addition, data collection procedures employed skip patterns to improve the efficiency of survey administration, but as a result, cognitive antecedents of drinking behaviors were not asked of current non-drinkers. This limited our analyses to individuals who had consumed alcohol in the past year, preventing us from providing comparable data to previous analyses on drinking status (Zemore, 2005). Finally, we did not control for birthplace due to content overlap with items on our acculturation measure (such as the ethnic composition of the respondents' environment and the environment where they grew up). However, birthplace and related variables (such as years since immigration) are known to predict physical and mental health problems (Breslau et al., 2007; Breslau et al.; 2008, Cook et al., 2009) and future studies

should seek to better distinguish these geographic influences from more sociolinguistic aspects of acculturation.

Acknowledgments

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Table 1

Coefficients for acculturation in regression models predicting stress, motives, expectancies, and norms, by gender.

| | Outcome | | | |
	Stress	Motives	Expectancies	Att/Norms
Females				
	$-.21^b$ (.07), $-.18$	$.12^b$ (.05), .14	.13 (.10), .10	.03 (.03), .05
	$R^2 = .13$	$R^2 = .05$	$R^2 = .04$	$R^2 = .09$
Males				
	$-.21^b$ (.06), $-.18$	.09 (.05), .10	.11 (.08), .08	$.17^c$ (.04), .27
	$R^2 = .06$	$R^2 = .03$	$R^2 = .02$	$R^2 = .08$

Note. All models controlled for age, marital status, income, and education; Unless otherwise noted, cells contain: unstandardized regression coefficients (standard error), standardized coefficient;

[a] $p < .05$,

[b] $p < .01$,

[c] $p < .001$.

Table 2

Coefficients for acculturation, stress, motives, expectancies, and norms in regression models predicting drinking outcomes, by gender.

Predictor set	Females		Males	
	Volume	Frequency of Heavy Drinking	Volume	Frequency of Heavy Drinking
Acculturation	.36^b (.12), .19	.44^a (.21), .15	.17 (.12), .09	.14 (.20), .05
	R^2 =.08	R^2 =.08	R^2 =.04	R^2 =.03
Acculturation	.37^b (.12), .19	.47^a (.21), .16	.18 (.13), .09	.17 (.20), .06
Stress	.01 (.06), .01	.13 (.10), .05	.04 (.08), .03	.17 (.13), .07
	R^2 =.08	R^2 =.08	R^2 =.04	R^2 =.03
Acculturation	.29^a (.12), .15	.33 (.21), .11	.09 (.10), .05	.03 (.18), .01
Motives	.63^b (.23), .30	.96^b (.35), .28	.82^c (.10), .38	1.26^c (.16), .37
	R^2 =.19	R^2 =.16	R^2 =.19	R^2 =.16
Acculturation	.33^a (.13), .18	.40 (.22), .13	.13 (.12), .07	.09 (.13), .03
Expectancies	.22^c (.07), .15	.35^b (.13), .15	.36^c (.08), .24	.55^c (.13), .23
	R^2 =.11	R^2 =.10	R^2 =.09	R^2 =.08
Acculturation	.33^b (.11), .17	.39^a (.20), .13	−.03 (.12), −.02	−.18 (.19), −.06
Att/Norms	1.04^c (.15), .34	1.58^c (.27), .33	1.21^c (.14), .40	1.93^c (.22), .40
	R^2 =.21	R^2 =.18	R^2 =.19	R^2 =.18

Note. All models controlled for age, marital status, income, and education; Unless otherwise noted, cells contain: unstandardized regression coefficients (standard error), standardized coefficient.

[a] p<.05,

[b] p<.01,

[c] p<.001.

Table 3

Linear and quadratic coefficients for acculturation and stress predicting stress, cognitive variables, and drinking outcomes.

				Outcome		
Predictor set	Stress	Motives	Expectancies	Att/Norms	Volume	Frequency of Heavy Drinking
Females						
Acculturation	$-.37^b$ (.14), −.32	.04 (.08), .04	−.02 (.15), −.01	.05 (.05), .07	$.49^b$ (.17), .26	$.70^a$ (.29), .24
Quadratic trend	.15 (.08), .14	.08 (.05), .10	.13 (.10), .12	−.01 (.03), −.02	−.12 (.11), −.07	−.24 (.19), −.09
	$R^2 = .14$	$R^2 = .06$	$R^2 = .04$	$R^2 = .09$	$R^2 = .08$	$R^2 = .08$
Stress					.21 (.18), .13	.69 (.02), .27
Quadratic trend					−.09 (.06), −.16	$-.23^a$ (.10), −.25
					$R^2 = .03$	$R^2 = .07$
Males						
Acculturation	$-.32^c$ (.09), −.28	.12 (.07), .14	.10 (.10), .08	.19 (.06), .30	.24 (.15), .13	.25 (.24), .08
Quadratic trend	$.16^a$ (.07), .15	−.04 (.06), −.05	.01 (.09), .01	−.03 (.05), −.05	−.10 (.15), −.06	−.15 (.26), −.05
	$R^2 = .07$	$R^2 = .03$	$R^2 = .02$	$R^2 = .08$	$R^2 = .04$	$R^2 = .03$
Stress					.10 (.23), .06	.45 (.38), .18
Quadratic trend					−.03 (.09), −.05	−.12 (.13), −.13
					$R^2 = .03$	$R^2 = .03$

Note: All models controlled for age, marital status, income, and education; Unless otherwise noted, cells contain: unstandardized regression coefficients (standard error), standardized coefficient.

[a] p<.05,

[b] p<.01,

[c] p<.001.