# Perceived Discrimination and Latino Youth Adjustment: Examining the Role of Relinquished Control and Sociocultural Influences

Taona P. Chithambo and Stanley J. Huey, Jr. University of Southern California Yolanda Cespedes-Knadle University of La Verne

Perceived discrimination has been linked to negative mental health outcomes in Latino populations, supporting the need to elucidate the mechanisms of its influence. Using a sample of Latino adolescents (n=395), the current study examined the relationship between perceived discrimination and two psychosocial outcomes: depression and academic performance. Potential mediator and moderator effects were also assessed. Results indicated that relinquished control mediated the relationship between perceived discrimination and depression, as well as self-reported academic performance. No moderation effect was detected for discrimination attribution (racial/ethnic vs. other). Also, no moderation effects were detected for U.S. acculturation or U.S. nativity. These results correspond with previous literature citing deleterious effects of discrimination on Latino youth functioning, and suggest that discrimination outcomes for Latino youth are independent of specific cultural factors.

Keywords: academic performance, acculturation, coping, depression, discrimination, Latinos/as

Perceived discrimination is associated with various indicators of poor adjustment in Latino youth, including low self-esteem, substance use, and conduct problems (Berkel et al., 2010; Greene, Way, & Pahl, 2006; Lee & Ahn, 2012; Smokowski & Bacallao, 2007). Discrimination is often described as a process by which dominant groups attempt to maintain their status within the social hierarchy (Krieger, 1999); thus, socially disadvantaged groups are particularly susceptible to the adverse effects of discrimination. These experiences of discrimination a) prevent minorities from ascending the social hierarchy, and b) induce psychological stress, which is implicated as a catalyst for adverse health consequences (Williams & Mohammed, 2009).

Correspondence concerning this article should be addressed to Taona P. Chithambo, Department of Psychology/SGM 501, University of Southern California, Los Angeles, CA 90089. E-mail: chithamb@usc.edu

Depressive symptomatology is among the most commonly reported consequences of perceived discrimination for Latino youth. For example, in a sample of Mexican-origin youth, Delgado and colleagues (2011) found that perceived discrimination was positively associated with depression and risky behaviors. Behnke et al. (2011) obtained similar results for Latino high school students. Perceived discrimination is also a predictor of poor academic outcomes for young Latinos. Among Mexican immigrant high school students, perceiving discrimination by teachers is associated with being academically "off-track" (i.e., withdrawn from school or enrolled in a remedial program; Stone & Han, 2005). Furthermore, perceived discrimination is associated with decreased academic motivation, grade point average (GPA), and academic wellbeing (a composite measure of GPA, homework completion, self-reported dissatisfaction with academic performance, and self-reported likelihood of dropping out) for Latino youth (Alfaro et al., 2009; Benner & Graham, 2011; DeGarmo & Martinez, 2006; Huynh & Fuligni, 2010; Perreira, Fuligni, & Potochnick, 2010; Stone & Han, 2005). Given that perceived discrimina-

Taona P. Chithambo and Stanley J. Huey, Jr., Department of Psychology, University of Southern California; Yolanda Cespedes-Knadle, Department of Psychology, University of La Verne.

tion is linked with a number of undesirable outcomes, it is important to examine the variables that both affect and explain its influence.

#### **Mechanisms of Discrimination Effects**

## **Relinquished Control**

A potential mediator of discrimination effects is relinquished control, a cognitive strategy that involves experiencing life events without attempting to change external circumstances or internal cognitive appraisals (Band & Weisz, 1988). Rather, events are experienced passively and no control strategies are applied. Relinquished control is distinct from fatalism, which refers to the belief that one is powerless in controlling life events (Abraido-Lanza et al., 2007). Fatalism refers to a broader worldview regarding the malleability of life circumstances (Rotter, 1966), whereas relinquished control is a specific coping strategy that is accessed in response to adversity.

Relinquished control coping is conceptualized as an outcome of difficult life circumstances (Burger, 1989), and has been linked to negative psychological outcomes for youth populations (Weisz, Weiss, Wasserman, & Rintoul, 1987; Magaro & Weisz, 2006). As an ongoing, externally imposed stressor, discrimination represents a life circumstance that may predict poor outcomes through relinquished control coping. Though past research indicates that disengagement-oriented coping strategies and discrimination-induced stress are positively associated among Latino youth (Edwards & Romero, 2008), no known work to date has examined whether relinquished control acts as a mechanism of the relationship between discrimination and depression for Latino youth. In the present study, relinquished control was examined as a mediator of the relationship between perceived discrimination and youth adjustment.

#### **Discrimination Attribution**

Several moderators were evaluated to determine whether culture-related variables influence the association between perceived discrimination and Latino youth adjustment. Reported reason for discrimination (racial/ethnic vs. other) was examined as one poten-

tial moderating factor. Past literature asserts that experiencing racial/ethnic discrimination is common and detrimental to ethnic minorities (e.g., Williams & Mohammed, 2009). To our knowledge, however, no studies with Latino youth have assessed whether racial/ ethnic discrimination results in outcomes divergent from discrimination attributed to other sources (e.g., gender, sexuality). From an ethnic stigma perspective, racial/ethnic discrimination might be particularly deleterious for minorities. This argument is supported by previous research, which found that the attribution of negative events to racism was associated with negative affect and lowered social self-esteem for African American women, while attributions to sexism and external circumstances were unrelated to both outcomes (King, 2003). Among African American women in the workplace, racial harassment contributes significantly to variance in trauma symptoms and life satisfaction, even after sexual harassment is accounted for (Buchanan & Fitzgerald, 2008). Also, African Americans exhibit greater physiological reactivity to racist events than alternative angerprovoking events (Armstead et al., 1989). On the other hand, a general stigma perspective argues that discrimination based on one's gender or sexuality, for example, could be equally distressing when compared to racebased discrimination. Perceived discrimination is associated with poor psychosocial outcomes for a number of attribution sources (Kessler et al., 1999), indicating that the effects of discrimination are not restricted to race-based attributions. Kessler et al. (1999) found no variation in major depression, generalized anxiety disorder, or nonspecific distress on the basis of perceived reason for discrimination. Also, minority populations continue to report adverse consequences of discrimination attributed to alternative sources (e.g., Díaz et al., 2001; Stuber, Galea, Ahern, Blaney, & Fuller, 2003). The present study examined whether discrimination attribution moderated the relationship between perceived discrimination and outcomes for Latino youth. If ethnic stigma is most salient, discrimination effects will be particularly strong for youth who attribute perceived discrimination to race or ethnicity rather than gender, weight, or other personal characteristics; by contrast, the *general stigma* view predicts that perceived reason for discrimination will not affect discrimination-related outcomes.

## Nativity and U.S. Acculturation

We also examined U.S. nativity and acculturation as potential moderators of the association between discrimination and Latino youth adjustment. The acculturation hypothesis holds that among minority populations, acculturation to the values of the dominant culture is associated with psychological distress (Franzini & Fernandez-Esquer, 2004). A number of factors are theorized to contribute to this relationship, including increased familial conflict, disruption of social networks, and the adoption of maladaptive health behaviors (Cook, Alegría, Lin, & Guo, 2009; Vega, Sribney, Aguilar-Gaxiola, & Kolody, 2004). This issue has been explored extensively in studies comparing U.S.-born Latinos to less acculturated Latino immigrants (Vega & Gil, 1998). Research suggests that Latino immigrants are less vulnerable to mental health problems than Latinos born in the United States (Finch, Kolody, & Vega, 2000). Though Mexican Americans exhibit a lower lifetime prevalence of Diagnostic and Statistical Manual of Mental Disorders, third edition (DSM-*III–R*) disorders than the general population, the prevalence of DSM-III-R disorders among U.Sborn Mexicans is twice that of Mexican immigrants (Vega et al., 1998). In addition, as length of residence in the United States increases, the risk of experiencing lifetime DSM psychiatric disorders increases correspondingly (Cook et al., 2009; Vega et al., 1998).

Moreover, nativity may be a moderating factor in the relationship between discrimination and depression. Finch et al. (2000) reported that the association between perceived discrimination and depression was stronger for Mexicans who were U.S natives than Mexican immigrants. Previous research has also found that U.S acculturation moderates the relationship between perceived discrimination and depression for Latinos, with a significant relationship between discrimination and depression detected only among U.S. acculturated youth (Umaña-Taylor et al., 2008). These results support the hypothesis that exposure to the U.S. cultural

milieu increases one's vulnerability to societally imposed adversities.

To test the acculturation hypothesis in the present study, U.S. nativity and U.S. acculturation were tested as moderators of the relationship between perceived discrimination and depression/academic performance. Based on the tenets of the acculturation hypothesis, it was expected that a) the association between discrimination and psychosocial adjustment would be stronger for U.S. born Latinos than foreignborn Latinos; and b) the relationship between discrimination and psychological adjustment would increase with U.S. acculturation.

# **Current Study**

We sought to a) assess the relationship between perceived discrimination and psychosocial adjustment (i.e., depression and academic performance) among Latino adolescents; b) examine the mediating influence of relinquished control on the relationship between discrimination and youth adjustment; and c) evaluate potential moderators of the relationship between perceived discrimination and Latino adjustment. It was hypothesized that perceived discrimination would be positively associated with depression and negatively associated with academic performance. We also hypothesized that relinquished control would mediate the relationship between perceived discrimination and study outcomes. Finally, discrimination attribution, nativity, and U.S. acculturation were examined as moderators of the relationship between perceived discrimination and youth outcomes.

#### Method

## **Participants and Procedures**

Data were collected from 457 students enrolled in a large, predominantly Latino Los Angeles high school. Participants were recruited from elective class periods. The current study utilizes data from the 395 students who self-identified as Latino. Forty-eight percent were of Mexican ethnicity, 31% Salvadoran, 11% Guatemalan, 2% Honduran, 5% another Latino ethnicity, and 3% multiethnic. Participants ranged in age from 13–18 years old (M=15.25, SD=1.21). Fifty-eight percent of participants were in ninth grade at the time of data collection, 8%

in tenth grade, 26% in eleventh grade, and 8% in twelfth grade. The sample was 51% female and 49% male. Seventy-eight percent of the sample was born in the United States, and 22% outside of the United States.

Because most of the study population was under age 18 at the time of data collection, consent was obtained from participants' parents. Youths completed assent forms to indicate voluntary participation in study procedures. During elective class periods, participants completed 15 questionnaires that assessed psychological adjustment, cultural background, coping strategies, discrimination experiences, and demographic information.

#### **Measures**

**Demographics.** A demographics questionnaire assessed information regarding participant age, self-identified racial/ethnic background, and place of birth.

**Depression.** Depression scores were derived from a composite of two measures. The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) consists of 20 items that assess the frequency of depression symptoms experienced during the past week (e.g., loneliness, crying spells). Items are endorsed on a 0 to 3 scale, with 0 indicating *rarely or none of the time* and 3 indicating *most or all of the time*. Past research indicates that the scale exhibits adequate internal reliability and construct validity with Latino populations (Golding & Karno, 1988; Golding & Aneshensel, 1989). The reliability coefficient for the current sample was .79.

The second depression measure, the Reynolds Adolescent Depression Scale – 2nd Edition (RADS-2; Reynolds, 2002), is a 30-item measure that assesses the frequency of various symptoms associated with depression, including hopelessness, mood disturbances, and somatic discomfort. Questions are designed to identify adolescents with significant depression, and follow a Likert scale format whereby 1 = rarely ornone of the time (less than 1 day) and 4 = mostof the time or all of the time (5–7 days). Thus, higher scores are associated with higher levels of distress. Sample items include I feel lonely, I get stomachaches, and I feel I am no good. The RADS-2 is reported to exhibit convergent validity with other depression measures (Krefetz, Steer, Gulab, & Beck, 2002). Coefficient alpha for the current sample was .79.

Questionnaire items from both measures were combined into one scale to increase internal reliability (Cortina, 1993). Because the two surveys were highly positively correlated (r=.80), a unit weighting approach of standardizing and averaging CES-D and RADS scores was indicated as an appropriate strategy to form a single measure of depression (Bobko, Roth, & Buster, 2007). This composite variable was used in subsequent regression analyses.

Relinquished control. Relinquished control was assessed using the Relinquished Control subscale of the Primary-Secondary Control Questionnaire (PSQ; Weisz, 1992). Sample items include If I don't like the way things are, I just have to live with them and [w]hen things don't go my way, I give up. The 10-item scale utilizes a 4-point response format, with 1 indicating very false and 4 indicating very true. The internal reliability of the scale was .82.

**Academic performance.** Youth self-report of grades was used as an indicator of academic performance. Participants responded to the survey question, [w]hat grades do you typically get in school?. Answers were provided using a 5-point Likert scale, whereby 1 = mostly As and 5 = mostly Fs. All responses were then reversecoded, so that a higher score reflects better academic performance.

We also used high school transcripts to assess semester grades, with students' scores in core academic classes (i.e., English, Science, Math, Social Science) averaged to yield a grade point average (GPA) ranging from 0 to 4. However, because of administrative barriers, grade transcripts were only available for approximately 51% of the students. Because excessive missingness may bias the results of regression analyses (Raymond & Roberts, 1987), we chose not to utilize objective grade data as an outcome.

**Experiences of discrimination.** The Everyday Discrimination Scale (EDS; Essed, 1991) tallies the frequency of participants' encounters with discriminatory experiences. Items 1–9 are scored using a 6-point Likert scale (1 = never, 6 = almost every day), with item 10 allowing participants to specify the reason(s) for discrimination (available choices were ethnicity, gender, race, age, religion, personal appearance, income level/social class, skin color, education level, hair style, accent, or other). For

example, participants were asked to indicate how often [y]ou are treated with less respect than other people and how often [y]ou are threatened or harassed. The EDS has been utilized with Latino populations in previous research (Dawson & Panchanadeswaran, 2010; Molina, Alegría, & Mahalingam, 2013). For the current sample, internal reliability for the scaled items was .89.

Items 1–9 were averaged to form a single discrimination frequency predictor variable for mediation analyses. Reasons for discrimination were coded to denote Racial/ethnic or Other. Nine participant responses with multiple discrimination attributions (i.e., racial/ethnic *and* other source(s)) were randomly assigned to either Racial/ethnic or Other using a random number generator.

U.S. acculturation. Identification with U.S. cultural values was assessed using the Assimilation subscale of the Acculturation, Habits, and Interests Multicultural Scale (AHIMSA: Unger et al., 2002). The scale contains a total of eight items assessing cultural preferences, for which four responses are possible: a) United States; b) country my family is from; c) both; or d) neither. A sample item is the holidays I celebrate are from .... Response choices are tallied to yield four scale totals: 1) Assimilation (number of "a" responses); 2) Separation (number of "b" responses); 3) Integration (number of "c" responses); and 4) Marginalization (number of "d" responses). Thus, scores from each scale can range from 0 to 8. Because research suggests that the adoption of U.S. cultural values is associated with negative psychosocial outcomes for Latinos (Franzini & Fernandez-Esquer, 2004), the Assimilation subscale was utilized in study analyses.

**Socioeconomic status.** Socioeconomic status (SES) was assessed as a control variable because the construct is associated with both psychological and academic youth outcomes

(Mikolajczyk, Bredehorst, Khelaifat, Maier, & Maxwell, 2007; Perry & McConney, 2010). We used parental education level as a proxy for SES Participants were asked to indicate the education level of their mother and father on a scale from 1 to 5, with 1 indicating *elementary to sixth grade* and 5 denoting *college graduate or higher*. The two parents' scores were then averaged to yield a mean education score (Hollingshead, 1975). For students who only had education information for one parent, the available parent's score was used.

#### **Analyses**

Figure 1 outlines the overarching conceptual model, in which the relationship between perceived discrimination and study outcomes is mediated by relinquished control. According to Baron and Kenny (1986), four criteria must be met to establish mediation. First, there must be a significant relationship between the predictor variable (perceived discrimination) and the outcome variable (depression/academic performance; path c). Second, there must be a relationship between perceived discrimination and the mediator variable (relinquished control; path a). Third, a significant relationship must exist between relinquished control and youth outcomes (path b). Lastly, the relationship between discrimination and youth outcomes must weaken significantly when relinquished control is included in a regression model (path c'). In more recent literature, Kenny, Kashy, and Bolger (1998) updated Baron and Kenny's original framework, arguing that step 1 is no longer necessary to establish mediation.

The Sobel test of mediated effects evaluates the significance of the indirect effect. However, the Sobel test assumes that the indirect effect is normally distributed. Preacher and Hayes (2004) have recommended bootstrapping for testing mediation hypotheses, as the procedure

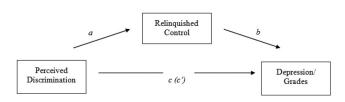


Figure 1. Mediation model.

makes no assumptions regarding the sampling distribution for the indirect effect. Thus, the INDIRECT procedure of the MPLUS statistical software package (Muthén and Muthén, 1998) was used to estimate the indirect effect via bootstrapping procedures.

To test the moderation hypotheses, two separate regression models, one for each outcome variable (depression and self-report grades), were fit for each of the three moderator variables (nativity, discrimination attribution, acculturation). Each regression model consisted of the perceived discrimination predictor term, the moderator variable, and the cross product of the two variables. The significance of the interaction term was evaluated to determine whether moderation occurred.

Because research indicates that both outcome variables of interest (depression and academic performance) are associated with age, socioeconomic status, nativity, and gender (Essau, Lewinsohn, Seeley, & Sasagawa, 2010; Everson, Maty, Lynch, & Kaplan, 2002), these variables were evaluated via correlation analyses to determine whether they should be included as covariates. Results indicated that gender and nativity were significantly correlated with depression, whereas gender and age were significantly correlated with academic performance. Analyses for each outcome were run with and without the respective set of covariates. Both sets of analyses yielded the same results, indicating that the variables do not explain significant variance in the reported outcomes (Becker, 2005). Therefore, covariates were not included in the final reported results.

#### Results

Table 1 provides study variable means, standard deviations, and intercorrelations. Perceived discrimination was positively correlated with depression. No correlation was found between perceived discrimination and self-reported grades. Relinquished control was positively correlated with both discrimination and depression. Also, relinquished control was negatively correlated with academic performance.

## **Mediation Analyses**

**Depression.** Regression analyses indicated that perceived discrimination predicted higher depression and higher relinquished control. Moreover, relinquished control was a significant predictor of depression, and the relationship between perceived discrimination and depression decreased when relinquished control was included in the model. A Sobel test indicated that the indirect effect differed significantly from zero, and zero did not fall within the generated bootstrap confidence intervals. These results indicate that relinquished control mediates the relationship between perceived discrimination and depression (see Table 2).

Academic performance. Perceived discrimination did not predict self-reported grades. However, perceived discrimination was a significant predictor of relinquished control, and relinquished control predicted self-reported grades. The Sobel mediation test yielded a significant indirect effect. Bootstrap analyses also found a significant indirect effect, as zero was

Table 1
Descriptive Statistics and Study Variable Intercorrelations

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Age	15.25	1.10	_								
2. Gender	_	_	11*	_							
3. Perceived discrimination	19.48	9.29	.06	.08	_						
4. Relinquished control	2.06	.55	.07	07	.15*	_					
5. Depression	1.94	.46	.03	$20^{*}$	.44*	.31*	_				
6. Grades	3.5	.94	.13*	09**	03	$17^{*}$ $-$	.17*	_			
7. U.S. nativity	_	_	.14*	08	.04	.04	.09**	.07	_		
8. Parental education level	2.35	1.03	19*	.08**	.01	08 -	.13*	07	03	_	
9. Assimilation	2.17	1.92	03	.13*	.00	.00 -	.07	07	$20^{*}$	.20*	_

Note. U.S. nativity was dummy coded with U.S. birth = 0 and birth outside of the U.S. = 1. Gender was dummy coded with female = 0 and male = 1.

<sup>\*</sup> p < .05. \*\* p < .10.

Table 2
Tests of Relinquished Control as Mediator of the Relationship Between Discrimination and Study Outcomes

		В	SE	t	Sobel test of indirect effect			Bootstrap results for indirect effect		
Outcome	Regression pathway				Value	SE	Z	95% CI LL	95% CI UL	
Depression	Depression regressed on perceived discrimination	.39	.04	9.26*	.03	.01	2.27*	.01	.06	
	Relinquished control regressed on perceived discrimination	.08	.03	2.63*						
	Depression regressed on relinquished control	.40	.09	4.58*						
	Depression regressed on perceived discrimination, controlling for relinquished control	.36	.05	8.03*						
Grades	Grades regressed on perceived discrimination	03	.05	56	02	.01	-1.99*	05	01	
	Relinquished control regressed on perceived discrimination	.07	.03	2.63*						
	Grades regressed on relinquished control	29	.09	-3.08*						
	Grades regressed on perceived discrimination, controlling for relinquished control	01	.05	12						

<sup>\*</sup> p < .05.

not within the 95% confidence interval (see Table 2). These results indicate that, despite the absence of a direct effect, relinquished control mediates the relationship between perceived discrimination and self-reported grades.

## **Moderation Analyses**

Discrimination attribution was tested as a moderator of the relationship between perceived discrimination and each outcome variable (depression, self-report grades) in two separate regression analyses. A significant interaction effect was not detected for depression or academic performance. Similarly, neither nativity (U.S.-born vs. foreign-born) nor assimilation moderated the relationships between discrimination and the outcome variables. Thus, no moderation effects were detected (see Table 3).

#### Discussion

This study examined the relationship between perceived discrimination and psychosocial adjustment in a sample of Latino adolescents. Perceived discrimination was positively associated with depression, though no direct association was detected between discrimination and academic performance. Relinquished control was identified as a mediating factor for both outcome variables. However, no moderation effects were detected for U.S. nativity or U.S. assimilation, suggesting a nonspecific association between perceived discrimination and Latino youth functioning.

The results add to a growing body of literature identifying an association between perceived discrimination and poor outcomes for Latino youth (Basáñez, Unger, Soto, Crano, & Baezconde-Garbanati, 2013; Berkel et al., 2010; Smokowski & Bacallao, 2007; Zeiders, Umaña-Taylor, & Derlan, 2013). Our mediation results for relinquished control suggest that the absence of control strategies in the context of discriminatory experiences might contribute to both depressive symptomatology and poor academic performance. Several sociocultural variables were investigated as potential moderators of the relationship between perceived discrimination and youth outcomes. Notably, no moderation effects were detected for discrimination attribution (racial/ethnic vs. other). Thus, the experience of racial/ethnic discrimination had no unique influence on youth adjustment. Our find-

Table 3
Tests of Sociocultural Variables as Moderators of the Relationship Between Perceived Discrimination and Study Outcomes

		Dependent variable							
		]	Depress	ion	Self-reported grades				
Moderator	Predictor variable	В	SE	t	В	SE	t		
Attribution (Ethnic vs. Other)	Constant	01	.56	08	3.51	.07	48.36*		
	Discrimination	.44	.06	$7.04^{*}$	02	.07	.73		
	Attribution	05	.09	47	.09	.11	.83		
	Discrimination × Attribution	07	.09	73	.02	.10	.20		
Nativity	Constant	06	.05	-1.28	3.51	.05	64.65*		
-	Discrimination	.37	.05	7.30*	01	.06	16		
	Nativity	.17	.11	1.56	.16	.12	1.39		
	Discrimination × Nativity	.08	.09	.86	07	.10	63		
Assimilation	Constant	02	.04	55	3.82	.15	25.29*		
	Discrimination	.39	.04	9.24*	03	.05	-1.00		
	Assimilation	04	.02	-1.55	03	.03	-1.00		
	$Discrimination \times Assimilation \\$	02	.02	66	.00	.03	.13		

<sup>\*</sup> p < .05.

ings stand in contrast with previous literature, which suggests that racial/ethnic discrimination is exceptionally distressing for ethnic minorities when compared to other attribution sources (Armstead et al., 1989; King, 2003). Also, contrary to the acculturation hypothesis, moderation effects were not found for U.S. nativity or acculturation.

Our mediation findings for depression and self-reported grades support the argument that discrimination diminishes psychosocial functioning in Latino youth through relinquished control. However, it is important to note that past research implicates controllability of the stressful situation as an important factor in interpreting outcomes related to perceived control (Hall et al., 2006; Heckhausen, 1997). Therefore, relinquishing control may be an adaptive strategy in low-control environments, though data relevant to this question are not available in the current study. Furthermore, it has also been posited that cultural context plays an important role in the perception of situational controllability (McCarty et al., 2003). This issue has been explored in Latino populations with regard to fatalism (e.g., Ross, Mirowsky, & Cockerham, 1983). Research has shown that Latinos are more fatalistic than other populations and are more likely to attribute life events to external forces (Ross et al., 1983). However, it is also argued that these forces may be benign (e.g., God), and that the valence of such beliefs is more pertinent than control attributions per se (Joiner, 2001). Thus, though relinquished control mediated the relationship between discrimination and youth outcomes in our sample, it is important to consider that such results may vary on the basis of situational controllability and valence, as well as the cultural context.

Our study presents a noteworthy theoretical contribution to the literature in its support of the general stigma perspective, which posits that discrimination outcomes do not vary on the basis of discrimination attribution. Though past research with African Americans supports the position that experiences of racial discrimination are particularly detrimental when compared with other discrimination attributions (Armstead et al., 1989; King, 2003), to our knowledge this finding has not been tested in a Latino population, nor in a youth population. Our results correspond with literature suggesting that attribution source has no bearing on distress experienced from discriminatory situations (Kessler, Mickelson, & Williams, 1999). Because no known research exists on the relative contribution of varied discrimination attributions to psychosocial outcomes for Latino youth, it is possible that alternative sources of discrimination are overlooked in favor of research on the effects of ethnic discrimination. Though past research identifies racial/ethnic discrimination as a salient stressor for ethnic minorities (e.g., Brown et al., 2000; Hwang &

Goto, 2009; McKenzie, 2006), continued work on the contribution of other discrimination attributions may identify additional stressors that bear similar, if not greater, influence on psychological outcomes.

Although this research provides support for the general stigma perspective, it is important to note that several alternative explanations may account for this result. Research suggests that for Latino adolescents, ethnic identity increases with time (French et al., 2006). Because the majority of students were freshmen, it is possible that the sample was too young to have developed a concept of "otherness" (Viruell-Fuentes, 2007) requisite for the identification of ethnicity as a reason for discrimination. Future research may address this issue through the inclusion of Latino adolescents at various stages of ethnic identity development. Also, because the students attended a predominantly Latino high school situated in a Latino neighborhood, their exposure to ethnic-based discrimination may have been limited, reducing its impact on psychosocial functioning. It is possible that replication of this study in a setting where Latinos are a numerical minority could reveal more salient effects for ethnic discrimination.

U.S. nativity did not moderate the relationship between perceived discrimination and study outcomes. Though previous research indicates that U.S.-born Latinos perceive discrimination more frequently than immigrants (Pérez, Fortuna, & AlegrÍa, 2008), and that the relationship between discrimination and depression is stronger for U.S. natives (Finch, Kolody, & Vega, 2000), our findings indicated that the relationship between discrimination and depression was similar for both groups. Furthermore, no differences between immigrants and U.S. natives were found for frequency of discrimination experiences. This supports a nonspecific effect of discrimination, whereby cultural factors do not determine its effect or severity. However, the age of our sample warrants consideration in the interpretation of these findings. Past literature suggests that the influence of nativity on mental health outcomes varies on the basis of immigration age, with child immigrants exhibiting more similar outcomes to natives than those migrating to the U.S in adolescence or adulthood (Breslau et al., 2007). It is possible that our results are subject to similar developmental patterns.

Moreover, in contrast to previous research (e.g., Finch et al., 2000; Umaña-Taylor and Updegraff, 2007), U.S. acculturation did not influence the association between discrimination and depression/academic performance. However, a measure of acculturative stress, which directly measures adjustment problems in response to adapting to a new culture (Berry, 2005), may have yielded different outcomes. For example, Finch et al. (2000) found that acculturative stress moderates the relationship between discrimination and depression. Individuals experiencing greater acculturative stress respond more strongly to experiences of discrimination, which may have a cumulative negative effect on functioning when combined with existing stressors (Berry, 2005).

## Limitations

The present study has several limitations. The data are cross-sectional, and so causal inferences are limited. As little research examines the longitudinal effects of discrimination for Latino youth (e.g., Umaña-Taylor et al., 2008; Umaña-Taylor & Guimond, 2010), the field would benefit from continued examination of the interplay between perceived discrimination, depression, academic performance, and mechanisms explaining the relationship between these variables over time. Furthermore, because our immigrant population resided in the U.S. for 8.9 years on average, it is possible that they were not culturally divergent enough from the U.S. native population to report differential effects of discrimination on depression and academic performance. In addition, as a result of excessive missingness, no objective grade data were available in the current study. Because research suggests that students tend to overestimate their academic achievement when self-reporting (Gramzow, Elliot, Asher, & McGregor, 2003), future studies should make efforts to obtain objective grade measures (e.g., GPA).

#### Conclusion

This study introduced relinquished control as a mechanism through which discrimination affects Latino youth functioning, and provided evidence for the general stigma model of ethnic discrimination. Future work should make efforts to study the effects of discrimination within a multiethnic context, as well as address the potential contribution of ethnic identity to the formation of discrimination attributions.

#### Abstracto

La discriminación percibida se ha relacionado con resultados negativos de salud mental en la población latina, lo cual confirma la necesidad de aclarar los mecanismos de su influencia. Utilizando un muestreo de adolescentes latinos (n = 395), el estudio actual examinó la relación entre la discriminación percibida y dos resultados psicosociales: la depresión y el rendimiento académico. También se evaluaron los efectos potenciales de mediador y moderador. Los resultados indicaron que el control abandonado mediaba la relación entre la discriminación percibida y la depresión, al igual que el auto-reporte de rendimiento académico. Ningún efecto moderador se detectó respecto a la atribución de discriminación (racial/étnica contra otra). También, ningunos efectos moderadores se detectaron respecto a la aculturación estadounidense o la natividad en EEUU. Estos resultados corresponden a estudios anteriores en que se cita los efectos nocivos de la discriminación en el desenvolvimiento de la juventud latina, y sugieren que los resultados de la discriminación en la juventud latina son independientes de factores culturales específicos.

## References

- Abraído-Lanza, A. F., Viladrich, A., Flórez, K. R., Céspedes, A., Aguirre, A. N., & De La Cruz, A. A. (2007). Commentary: Fatalismo reconsidered: A cautionary note for health-related research and practice with Latino populations. *Ethnicity & Disease*, 17, 153–158.
- Alfaro, E. C., Umaña-Taylor, A. J., Gonzales-Backen, M. A., Bámaca, M. Y., & Zeiders, K. H. (2009). Latino adolescents' academic success: The role of discrimination, academic motivation, and gender. *Journal of Adolescence*, 32, 941–962. doi: 10.1016/j.adolescence.2008.08.007
- Armstead, C. A., Lawler, K. A., Gorden, G., Cross, J., & Gibbons, J. (1989). Relationship of racial stressors to blood pressure responses and anger expression in black college students. *Health Psychology*, 8, 541–556. doi:10.1037/0278-6133.8.5 .541
- Band, E. B., & Weisz, J. R. (1988). How to feel better when it feels bad: Children's perspectives on coping with everyday stress. *Developmental Psychol*ogy, 24, 247–253. doi:10.1037/0012-1649.24.2 .247
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and*

- Social Psychology, 51, 1173-1182. doi:10.1037/0022-3514.51.6.1173
- Basáñez, T., Unger, J. B., Soto, D., Crano, W., & Baezconde-Garbanati, L. (2013). Perceived discrimination as a risk factor for depressive symptoms and substance use among Hispanic adolescents in Los Angeles. *Ethnicity & Health*, 18, 244–261. doi:10.1080/13557858.2012.713093
- Becker, T. E. (2005). Potential problems in the statistical control of variables in organizational research: A qualitative analysis with recommendations. *Organizational Research Methods*, 8, 274–289. doi:10.1177/1094428105278021
- Behnke, A. O., Plunkett, S. W., Sands, T., & Bámaca-Colbert, M. Y. (2011). The relationship between Latino adolescents' perceptions of discrimination, neighborhood risk, and parenting on self-esteem and depressive symptoms. *Journal of Cross-Cultural Psychology*, 42, 1179–1197. doi: 10.1177/0022022110383424
- Benner, A. D., & Graham, S. (2011). Latino adolescents' experiences of discrimination across the first 2 years of high school: Correlates and influences on educational outcomes. *Child Development*, 82, 508–519. doi:10.1111/j.1467-8624.2010.01524.x
- Berkel, C., Knight, G. P., Zeiders, K. H., Tein, J. Y., Roosa, M. W., Gonzales, N. A., & Saenz, D. (2010). Discrimination and adjustment for Mexican American adolescents: A prospective examination of the benefits of culturally related values. *Journal of Research on Adolescence*, 20, 893–915. doi:10.1111/j.1532-7795.2010.00668.x
- Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations*, 29, 697–712. doi:10.1016/j.ijintrel.2005.07.013
- Bobko, P., Roth, P. L., & Buster, M. A. (2007). The usefulness of unit weights in creating composite scores. *Organizational Research Methods*, *10*, 689–709. doi:10.1177/1094428106294734
- Breslau, J., Aguilar-Gaxiola, S., Borges, G., Kendler, K. S., Su, M., & Kessler, R. C. (2007). Risk for psychiatric disorder among immigrants and their US-born descendants: Evidence from the National Comorbidity Survey-Replication. *Journal of Nervous* and Mental Disease, 195, 189–195. doi:10.1097/ 01.nmd.0000243779.35541.c6
- Brown, T. N., Williams, D. R., Jackson, J. S., Neighbors, H. W., Torres, M., Sellers, S. L., & Brown, K. T. (2000). Being black and feeling blue: The mental health consequences of racial discrimination. *Race and Society*, 2, 117–131. doi:10.1016/S1090-9524(00)00010-3
- Buchanan, N. T., & Fitzgerald, L. F. (2008). Effects of racial and sexual harassment on work and the psychological well-being of African American women. *Journal of Occupational Health Psychol-*

- *ogy*, *13*, 137–151. doi:10.1037/1076-8998.13.2
- Burger, J. M. (1989). Negative reactions to increases in perceived personal control. *Journal of Personality and Social Psychology*, 56, 246–256. doi: 10.1037/0022-3514.56.2.246
- Cook, B., Alegría, M., Lin, J. Y., & Guo, J. (2009). Pathways and correlates connecting Latinos' mental health with exposure to the United States. *American Journal of Public Health*, *99*, 2247–2254. doi:10.2105/AJPH.2008.137091
- Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, 78, 98–104. doi:10.1037/0021-9010.78.1.98
- Dawson, B. A., & Panchanadeswaran, S. (2010). Discrimination and acculturative stress among first-generation Dominicans. *Hispanic Journal of Behavioral Sciences*, 32, 216–231. doi:10.1177/ 0739986310364750
- DeGarmo, D. S., & Martinez Jr., C. R. (2006). A culturally informed model of academic well-being for Latino youth: The importance of discriminatory experiences and social support. *Family Relations: An Interdisciplinary Journal of Applied Family Studies*, 55, 267–278. doi:10.1111/j.1741-3729.2006.00401.x
- Delgado, M. Y., Updegraff, K. A., Roosa, M. W., & Umaña-Taylor, A. J. (2011). Discrimination and Mexican-origin adolescents' adjustment: The moderating roles of adolescents', mothers', and fathers' cultural orientations and values. *Journal of Youth and Adolescence*, 40, 125–139. doi:10.1007/s10964-009-9467-z
- Díaz, R. M., Ayala, G., Bein, E., Henne, J., & Marin, B. V. (2001). The impact of homophobia, poverty, and racism on the mental health of gay and bisexual Latino men: Findings from 3 US cities. American Journal of Public Health, 91, 927–932. doi: 10.2105/AJPH.91.6.927
- Edwards, L. M., & Romero, A. J. (2008). Coping with discrimination among Mexican descent adolescents. *Hispanic Journal of Behavioral Sciences*, 30, 24–39. doi:10.1177/0739986307311431
- Essau, C. A., Lewinsohn, P. M., Seeley, J. R., & Sasagawa, S. (2010). Gender differences in the developmental course of depression. *Journal of Affective Disorders*, 127, 185–190. doi:10.1016/j.jad.2010.05.016
- Essed, P. (1991). *Understanding everyday racism*. Newbury Park, CA: Sage.
- Everson, S. A., Maty, S. C., Lynch, J. W., & Kaplan, G. A. (2002). Epidemiologic evidence for the relation between socioeconomic status and depression, obesity, and diabetes. *Journal of Psychosomatic Research*, 53, 891–895. doi:10.1016/S0022-3999(02)00303-3

- Finch, B. K., Kolody, B., & Vega, W. A. (2000). Perceived discrimination and depression among Mexican-origin adults in California. *Journal of Health and Social Behavior*, 41, 295–313. doi: 10.2307/2676322
- Franzini, L., & Fernandez-Esquer, M. E. (2004). Socioeconomic, cultural, and personal influences on health outcomes in low income Mexican-origin individuals in Texas. *Social Science & Medicine*, *59*, 1629–1646. doi:10.1016/j.socscimed.2004.02.014
- French, S. E., Seidman, E., Allen, L., & Aber, J. L. (2006). The development of ethnic identity during adolescence. *Developmental Psychology*, 42, 1–10
- Golding, J. M., & Aneshensel, C. S. (1989). Factor structure of the Center for Epidemiologic Studies Depression scale among Mexican Americans and Non-Hispanic whites. *Psychological Assessment: A Journal of Consulting and Clinical Psychology, 1*, 163–168. doi:10.1037/1040-3590.1.3.163
- Golding, J. M., & Karno, M. (1988). Gender differences in depressive symptoms among Mexican Americans and Non-Hispanic whites. *Hispanic Journal of Behavioral Sciences*, 10, 1–19. doi: 10.1177/07399863880101001
- Gramzow, R. H., Elliot, A. J., Asher, E., & McGregor, H. A. (2003). Self-evaluation bias and academic performance: Some ways and some reasons why. *Journal of Research in Personality*, 37, 41–61. doi:10.1016/S0092-6566(02)00535-4
- Greene, J. P., & Forster, G. (2003). Public high school graduation and college readiness rates in the United States. Center for Civic Innovation, The Manhattan Institute, New York.
- Hall, N. C., Chipperfield, J. G., Perry, R. P., Ruthig, J. C., & Goetz, T. (2006). Primary and secondary control in academic development: Gender-specific implications for stress and health in college students. *Anxiety, Stress & Coping*, 19, 189–210. doi:10.1080/10615800600581168
- Heckhausen, J. (1997). Developmental regulation across adulthood: Primary and secondary control of age-related challenges. *Developmental Psychol*ogy, 33, 176–187. doi:10.1037/0012-1649.33.1 .176
- Hollingshead, A. B. (1975). Four factor index of social status. New Haven, CT: Yale University, Department of Sociology.
- Huynh, V. W., & Fuligni, A. J. (2010). Discrimination hurts: The academic, psychological, and physical well-being of adolescents. *Journal of Research on Adolescence*, 20, 916–941. doi:10.1111/j.1532-7795.2010.00670.x
- Hwang, W. C., & Goto, S. (2009). The impact of perceived racial discrimination on the mental health of Asian American and Latino college stu-

- dents. Asian American Journal of Psychology, 1, 15–28. doi:10.1037/1948-1985.S.1.15
- Joiner, T. E. (2001). On fatalism, pessimism, and depression among Mexican-American and other adolescents attending an obstetrics-gynecology clinic. *Behaviour Research and Therapy*, 39, 887– 896. doi:10.1016/S0005-7967(00)00062-0
- Kenny, D. A., Kashy, D. A., & Bolger, N. (1998).
  Data analysis in social psychology. In D. Gilbert,
  S. T. Fiske & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 233–265).
  New York, NY: Oxford University Press.
- Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of Health and Social Be*havior, 40, 208–230. doi:10.2307/2676349
- King, K. R. (2003). Racism or sexism? Attributional ambiguity and simultaneous membership in multiple oppressed groups. *Journal of Applied Social Psychology*, *33*, 223–247. doi:10.1111/j.1559-1816.2003.tb01894.x
- Krefetz, D. G., Steer, R. A., Gulab, N. A., & Beck, A. T. (2002). Convergent validity of the Beck Depression Inventory-II with the Reynolds Adolescent Depression Scale in psychiatric inpatients. *Journal of Personality Assessment*, 78, 451–460. doi:10.1207/S15327752JPA7803\_05
- Krieger, N. (1999). Embodying inequality: A review of concepts, measures, and methods for studying health consequences of discrimination. *Interna*tional Journal of Health Services, 29, 295–352. doi:10.2190/M11W-VWXE-KQM9-G97Q
- Lee, D. L., & Ahn, S. (2012). Discrimination against Latina/os: A meta-analysis of individual-level resources and outcomes. *The Counseling Psychologist*, 40, 28–65. doi:10.1177/0011000011403326
- Magaro, M. M., & Weisz, J. R. (2006). Perceived control mediates the relation between parental rejection and youth depression. *Journal of Abnormal Child Psychology*, 34, 863–872. doi:10.1007/ s10802-006-9072-5
- McCarty, C. A., Weisz, J. R., Wanitromanee, K., Eastman, K. L., Suwanlert, S., Chaiyasit, W., & Band, E. B. (1999). Culture, coping, and context: Primary and secondary control among Thai and American youth. *Journal of Child Psychology and Psychiatry*, 40, 809–818. doi:10.1111/1469-7610.00496
- McKenzie, K. (2006). Racial discrimination and mental health. *Psychiatry*, *5*, 383–387. doi:10.1053/j.mppsy.2006.08.002
- Mikolajczyk, R. T., Bredehorst, M., Khelaifat, N., Maier, C., & Maxwell, A. E. (2007). Correlates of depressive symptoms among Latino and Non-Latino white adolescents: Findings from the 2003 California Health Interview Survey. BMC Public Health, 7. doi:10.1186/1471-2458-7-21

- Molina, K. M., Alegría, M., & Mahalingam, R. (2013). A multiple-group path analysis of the role of everyday discrimination on self-rated physical health among Latina/os in the USA. *Annals of Behavioral Medicine*, 45, 33–44. doi:10.1007/s12160-012-9421-2
- Muthén, L. K., & Muthén, B. O. (1998–2010). *Mplus user's guide* (6th ed.). Los Angeles, CA: Muthén & Muthén.
- Pérez, D. J., Fortuna, L., & Alegría, M. (2008). Prevalence and correlates of everyday discrimination among US Latinos. *Journal of Community Psychology*, 36, 421–433. doi:10.1002/jcop.20221
- Perreira, K. M., Fuligni, A., & Potochnick, S. (2010). Fitting in: The roles of social acceptance and discrimination in shaping the academic motivations of Latino youth in the US southeast. *Journal of Social Issues*, 66, 131–153. doi:10.1111/j.1540-4560.2009.01637.x
- Perry, L., & McConney, A. (2010). Does the SES of the school matter? An examination of socioeconomic status and student achievement using PISA 2003. Teachers College Record, 112, 1137–1162.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments & Computers*, 36, 717–731.
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. Applied Psychological Measurement, 1, 385–401. doi:10.1177/014662167700100306
- Raymond, M. R., & Roberts, D. M. (1987). A comparison of methods for treating incomplete data in selection research. *Educational and Psychological Measurement*, 47, 13–26. doi:10.1177/ 0013164487471002
- Reynolds, W. M. (2002). Reynolds Adolescent Depression Scale-2: Professional manual. Odessa, Fl: Psychological Assessment Resources.
- Ross, C. E., Mirowsky, J., & Cockerham, W. C. (1983). Social class, Mexican culture, and fatalism: Their effects on psychological distress. *American Journal of Community Psychology*, 11, 383– 399. doi:10.1007/BF00894055
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological monographs: General and Applied*, 80, 1–28.
- Smokowski, P. R., & Bacallao, M. L. (2007). Acculturation, internalizing mental health symptoms, and self-esteem: Cultural experiences of Latino adolescents in North Carolina. *Child Psychiatry and Human Development*, 37, 273–292. doi: 10.1007/s10578-006-0035-4
- Stone, S., & Han, M. (2005). Perceived school environments, perceived discrimination, and school performance among children of Mexican immi-

- grants. Children and Youth Services Review, 27, 51–66. doi:10.1016/j.childyouth.2004.08.011
- Stuber, J., Galea, S., Ahern, J., Blaney, S., & Fuller, C. (2003). The association between multiple domains of discrimination and self-assessed health: A multilevel analysis of Latinos and Blacks in four low-income New York City neighborhoods. *Health Services Research*, 38, 1735–1759. doi:10.1111/ j.1475-6773.2003.00200.x
- Umaña-Taylor, A. J., & Guimond, A. B. (2010). A longitudinal examination of parenting behaviors and perceived discrimination predicting Latino adolescents' ethnic identity. *Developmental Psychol*ogy, 46, 636–650. doi:10.1037/a0019376
- Umaña-Taylor, A. J., & Updegraff, K. A. (2007). Latino adolescents' mental health: Exploring the interrelations among discrimination, ethnic identity, cultural orientation, self-esteem, and depression. *Journal of Adolescence*, 30, 549–567. doi: 10.1016/j.adolescence.2006.08.002
- Umaña-Taylor, A. J., Vargas-Chanes, D., Garcia, C. D., & Gonzales-Backen, M. (2008). A longitudinal examination of Latino adolescents' ethnic identity, coping with discrimination, and self-esteem. *The Journal of Early Adolescence*, 28, 16–50. doi:10.1177/0272431607308666
- Unger, J. B., Gallaher, P., Shakib, S., Ritt-Olson, A., Palmer, P. H., & Johnson, C. A. (2002). The AHIMSA Acculturation Scale: A new measure of acculturation for adolescents in a multicultural society. *The Journal of Early Adolescence*, 22, 225– 251. doi:10.1177/02731602022003001
- Vega, W. A., & Gil, A. G. (1998). A model for explaining drug use behavior among Hispanic adolescents. *Drugs & Society*, 14, 57–74. doi: 10.1300/J023v14n01\_05

- Vega, W. A., Sribney, W. M., Aguilar-Gaxiola, S., & Kolody, B. (2004). 12-month prevalence of DSM–III–R psychiatric disorders among Mexican Americans: Nativity, social assimilation, and age determinants. Journal of Nervous and Mental Disease, 192, 532–541. doi:10.1097/01.nmd.0000135477.57357.b2
- Viruell-Fuentes, E. A. (2007). Beyond acculturation: Immigration, discrimination, and health research among Mexicans in the United States. Social Science & Medicine, 65, 1524–1535. doi:10.1016/j .socscimed.2007.05.010
- Weisz, J. R. (1992). Primary-Secondary Control Scale. Unpublished measure, University of California, Los Angeles.
- Weisz, J. R., Weiss, B., Wasserman, A. A., & Rintoul, B. (1987). Control-related beliefs and depression among clinic-referred children and adolescents. *Journal of Abnormal Psychology*, 96, 58-63. doi:10.1037/0021-843X.96.1.58
- Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: Evidence and needed research. *Journal of Behavioral Medicine*, 32, 20–47. doi:10.1007/s10865-008-9185-0
- Zeiders, K. H., Umaña-Taylor, A. J., & Derlan, C. L. (2013). Trajectories of depressive symptoms and self-esteem in Latino youths: Examining the role of gender and perceived discrimination. *Develop*mental Psychology, 49, 951–963. doi:10.1037/ a0028866

Received November 13, 2012
Revision received November 4, 2013
Accepted December 2, 2013