

CONCEPTUALIZING ETHNICITY: HOW DIMENSIONS OF ETHNICITY AFFECT DISPARITIES IN HEALTH OUTCOMES AMONG LATINXS IN THE UNITED STATES

Whitney N. Laster Pirtle, PhD¹; Zulema Valdez, PhD¹;
Kathryn P. Daniels, PhD²; Maria D. Duenas, MA¹;
Denise Castro, MA³

Background: This study considers how attributional and relational dimensions of ethnicity affect Latinxs' health outcomes.

Methods: Using regression methods to analyze data from the 2006 Portraits of American Life Study, we examined how attributional and relational dimensions of ethnicity affect: 1) intragroup differences in Latinx mental and physical health status, as measured by feelings of worthlessness and self-rated health, respectively; and 2) intergroup differences between Latinxs and non-Hispanic Whites in these health outcomes.

Results: Latinxs have higher odds of feelings of worthlessness and lower odds of self-reporting good/excellent health compared with non-Hispanic Whites. Additionally, intragroup differences in health are observed among Latinxs, conditioned on attributional or relational dimensions of ethnicity.

Conclusion: Multidimensional measures of ethnicity that distinguish between characteristics associated with ethnicity (attributional) or race (relational) offer a nuanced explanation of health disparities by revealing aspects of ethnicity that shape health outcomes differently, contributing to the goals of health equity. *Ethn Dis.* 2020;30(3):489-500; doi:10.18865/ed.30.3.489

Keywords: Ethnicity; Race; Latinxs; Worthlessness; Self-rated Health

¹ Department of Sociology, UC Merced, Merced, CA

² Department of Sociology, California State Polytechnic University, Pomona, CA

³ Students Making a Change, Merced, CA

Address correspondence to Whitney N. Laster Pirtle, PhD; Department of Sociology, University of California Merced, 52000 N Lake Road, Merced, CA 95340; wpirtle@ucmerced.edu

BACKGROUND

Biomedical and public health research on health disparities often relies on large data sets that employ force-choice categories of ethnicity.^{1,2} Using an aggregate self-reported measure, however, masks important distinctions that may affect health differently between affiliated group members.³⁻⁵ The development and application of theoretically informed and empirically validated measurements that capture multiple dimensions of ethnicity is crucial for an accurate understanding of causal pathways that associate ethnicity with health. Improving measurements of ethnicity is one recognized goal of public health critical race praxis,^{6,7} which seeks to foster a more nuanced approach to the study of racial and ethnic health disparities for improved health and social equality.

At 18% of the total population, Latinxs make up the largest racial/ethnic minority group in the United States.⁸ Latinxs are also increasingly diverse, as the Mexican-origin share is declining while the proportion from Puerto Rico and Central America is on the rise.⁸ The heterogeneity of this group offers a unique opportunity to examine how

variations in ethnic/racial characteristics, including national origin, language, and skin color, shape health outcomes.⁹ Research that examines how ethnicity affects Latinx health generally finds an association,¹⁰ but group heterogeneity and variation in operationalization and selection of such characteristics condition the direction and magnitude of the ef-

Improving measurements of ethnicity is one recognized goal of public health critical race praxis...^{6,7}

fect.¹¹⁻¹⁴ As Cuevas and colleagues caution, the health implications of the relationship between ethnicity and Latinx health remain circumspect, due to the “inconsistent use of race and skin color measures, and omission of a wider range of immigration-related and contextual factors.”^{10,p213} Drawing from Ford and Harawa’s¹ conceptualization of ethnicity, which distinguishes be-

tween *attributional* dimensions—which emphasize personal and group identities and sociocultural characteristics—and *relational* dimensions—which underscore social stratification and refers to the group’s social location in hierarchies (Table 1), we offer a comprehensive empirical examination of how multiple dimensions of ethnicity contribute to disparities in health among Latinxs in the United States.

Our exploratory quantitative analysis of seven dimensions of ethnicity captured in the Portraits of American Life Study (PALS) highlights needed empirical evidence to clarify the theoretical assumptions and empirical implications of Ford and Harawa’s conceptualization of ethnicity¹ and contributes to the research on Latinx health. Findings support Ford and Harawa’s call to consider both attributional and relational dimensions of ethnicity, thereby identifying the sociocultural and structural pathways that shape Latinx health. Moreover, observed divergent trajectories of attributional dimensions that are generally protective of Latinx mental health and relational

dimensions that result in adverse outcomes are consistent with racialization, underscoring the salience of race within relational measures.

THEORETICAL FRAMEWORK

Extant empirical research and systematic reviews collectively suggest multiple dimensions of ethnicity help explain intra-/inter-group variation in Latinx health, though the direction of the relationship varies by attributional or relational dimensions and type of health outcome.¹⁰ Attributional dimensions associated with nativity and culture generally tend to have a protective effect.^{6,15} For example, Vega and colleagues found Latinx immigrants report lower rates of psychiatric disorders than their US-born counterparts,¹¹ a finding consistent with the immigrant paradox.¹⁴ Similar findings are observed for self-rated health, a global health indicator.¹⁶ Lommel and Chen revealed a strong and consistent association between acculturation, as measured by US citizenship and English language proficiency, and poor self-rated health

for Latinxs¹⁷; other research has found reliance on Catholic religion linked to improved Latinx health.¹⁸

Relational dimensions of ethnicity¹ associated with racial classification, including constructs such as skin color or racial self-identification, are generally often associated with adverse health effects.^{4,19} In their study of depressive symptoms among adolescent Latinxs, Ramos and colleagues found a significant, positive association among self-identified Black Afro-Latinas when compared with self-identified White Latinas.²⁰ Likewise, non-Hispanic Whites reported better self-rated health outcomes than Latinxs who identify as White (Hispanic-Whites).¹⁶ A negative association between skin color and health has been found among Latinxs, such that the darker one’s skin color is, the worse their reported health.²¹ Research on intragroup differences revealed that having a strong racial/ethnic identity was associated with improved physical and mental health among Latinxs, although a negative racial group evaluation among Black Americans was associated with an increase in depressive

Table 1. Conceptual and operational framework for the relationship between dimensions of ethnicity and health status^a

Dimensions of Ethnicity	Brief Description	Adopted Measures	Predicted Relationship to Health
Attributional	Related to sociocultural characteristics; Emphasizes individual and group identities; Often associated with nativity and culture	Parental nativity status; Language use; Religious identification	The more respondents report association with Latinx cultures and place of origin (eg, foreign born parents, non-English language use, Catholic religion), the better their health will be, compared with non-Hispanic Whites
Relational	Emphasizes positioning within the US racial hierarchy; Often associated with phenotypical characteristics	Racial identification; Choice; Skin color; Racial/ethnic identity; Salience; Racial/ethnic misclassification	The more respondents report association with racialized status (eg, darker skin, racialized label choice (ie ‘other’), high racial/ethnic identity salience, racial/ethnic misclassification), the worse their health will be, compared with non-Hispanic Whites

a. Table informed by Ford and Harawa.¹

Table 2. Social demographic and health status among non-Hispanic White and Latinx in PALS 2006^a

Variable	Range	Full Sample, N=1733	White, n=1283	Latinx, n=450	P ^b
Social Demographics					
Male	0, 1	.485	.482	.507	.452
Age	18 – 80	46.416 (.695)	47.395 (.718)	39.940 (1.023)	<.001
Socioeconomic status	-1.266 – 1.557	.131 (.039)	.178 (.041)	-.180 (.056)	<.001
Health Status					
Felt worthless	0, 1	.143	.136	.192	.041
Self-rated health	1-5				.002
Poor/fair		.208	.197	.280	
Good		.247	.243	.278	
Very good/excellent		.545	.561	.442	

^a Means/proportions of variables are weighted; standard errors in parentheses.

^b P comparing Latinx with White study participants

symptoms.^{22,23} Recent studies on racial classification have demonstrated negative mental health outcomes for Latinxs whose race/ethnicity is misclassified by others,^{24,25} suggesting that inconsistent racial/ethnic classification may increase stress.²⁶

Findings collectively demonstrate that indicators of relational ethnicity are generally associated with negative health outcomes, whereas indicators of attributional ethnicity are mixed but tend to point to better health outcomes. These effects, however, have been determined separately, limiting a comprehensive picture of their combined impact. Thus, we ask: How do attributional and relational dimensions of ethnicity explain inter/intragroup disparities in the health outcomes of Latinxs, when compared with non-Hispanic Whites? Informed by prior research, we hypothesize that the effect of attributional dimensions of ethnicity are protective, whereas relational dimensions of ethnicity will have adverse impacts (Figure 1). Our analysis brings to bear needed empirical evidence to clarify the theoretical assumptions undergirding Ford and

Harawa’s conceptualization of multidimensional ethnicity¹ and contributes to a better understanding of Latinx mental and physical health.

METHODS

We used the 2006 Portraits of American Life Study (PALS), a nationally representative, face-to-face interview survey of 2,610 non-institutionalized, English- or Spanish-speaking civilian households in the contiguous United States. Participants were aged ≥18 years and survey questions focused on topics including racial and ethnic identity, religion, and health.^{27,28} Surveys were conducted in English or Spanish and had a response rate of 58%. Our use of PALS data sampling weights brings PALS data in line with the US Census Bureau’s American Community Survey (ACS) three-year average estimates for 2005-2007. The 2006 PALS data are ideal for this project because it oversamples Latinxs and includes multiple measures of race/ethnicity. All procedures were conducted in ac-

cordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000. The study was reviewed and approved by the institutional review board (#2016-99) at UC Merced.

Measures

Dependent Variables

FEELINGS OF WORTHLESSNESS

We selected self-reported feelings of “worthlessness” within the last two weeks (1=yes) as an indicator of mental wellbeing, which is often used in scales to capture symptoms of psychological distress. This indicator is a useful measure of mental wellbeing given the underreporting of mental health constructs like depression among Latinxs due to stigma and cultural differences.²⁹

SELF-RATED HEALTH

We examined self-rated health as a widely used indicator of overall health and wellbeing.³⁰ Self-rated health is measured using a

3-point scale where 1=poor or fair 2=good 3=very good or excellent.

Independent Variables

SELF-REPORTED RACE/ETHNICITY

Respondents were asked, “What race or ethnic group do you consider yourself?” We restricted our analytical sample to non-Hispanic Whites (herein Whites) and Hispanics (herein Latinxs).

DIMENSIONS OF ETHNICITY

The PALS race/ethnicity module provided multiple dimensions of ethnicity. We limited our analysis of dimensions of ethnicity to the Latinx population as they compared with Whites for three reasons. First, in the United States, Latinxs are a racialized ethnic minority group whose ethnic identity is associated with structural exclusion,³¹ whereas Whites are characterized as the dominant cultural group whose ethnic identity is “symbolic” or “optional” and distinct from structural exclusion.³² White ethnic identity is symbolic because identifying as such does not require engaging in associated cultural or social practices, and optional because there is some choice in the matter.³³ Second, not all dimensions were asked/ reported for Whites. Finally, we observed a lack of variation on specific dimensions, such as nativity, asked/ reported for Whites. For example, 90.74% of Whites were very light/ light skinned, 83.21% non-Catholic, 99.10% spoke English, 90.82% had US-born parents, and 89.88% said they are consistently racially classified. Thus, for each dimension

of ethnicity—both attributional and relational measures—the reference group is Whites (White=0).

Attributional measures¹ were operationalized as dichotomous variables among the Latinx subsample consisting of: ancestry, ie, foreign-born or US-born parents¹⁴; English language use, ie, English as the primary language at home or not¹⁷; and, Catholic, ie, as self-reported religion vs all others.¹⁸

Relational measures among the Latinx subsample were operationalized to include: skin color, a categorical variable capturing interviewer coded skin color by matching perceived skin tone (1 “very light” to 4 “dark”) to the survey’s skin tone instrument¹³; racial/ethnic misclassification, a dichotomous variable of whether the respondent reported that other Americans believe their race/ethnicity is something other than their own self-report vs consistently classified^{24,25}; racial/ethnic identity salience, a dichotomous variable of whether respondents answered “very” or “somewhat important” (vs “only a little” and “not important”) when asked how important their self-selected racial/ethnic identification is to their sense of who they are^{22,23}; and racial choice, a dichotomous variable of self-reported census racial categories²¹ that we restricted to Latinxs who racially identify as “White” (41.7%) vs “other” (51.6%), given the small n’s in other responses (17 as American Indian, 11 as Black, 6 as don’t know, 6.7%).

Confounders

Full models are adjusted for age (continuous), sex (1=male),

and socioeconomic status (SES, a standardized composite measure of income, educational attainment, and employment status). The composite measure allowed us to compare SES across two population groups with distinct socioeconomic distributions. SES scores ranged from 1.42 standard deviations below the mean to 1.56 standard deviations above the mean.

Analytical Strategy

Analyses were conducted in Stata 13 accounting for the PALS complex survey design. Observations with missing data for the outcomes or predictors (6% of sample) were excluded leaving 1,733 observations in the analytic sample (n=450 Latinxs, n=1,283 Whites). Using chi-square tests and independent t-tests, we first assessed bivariate relationships between self-reported ethnicity, social demographics, and outcome measures (Table 2), then analyzed bivariate relationships between dimensions of ethnicity to highlight intra-ethnic differences in health (Table 3). We next ran a series of binary logistic regression models for feeling worthless (Table 4) and ordered logistic regression models for self-rated health (Table 5) to examine multivariate relationships regressing each dimension of ethnicity on the health outcomes in separate models. We produced 19 models for each dimension on the two outcomes, first running unadjusted models and then adjusted regression models for key control variables: age, sex, and socioeconomic status. Finally, we ran two comprehensive models for each outcome in-

Table 3. Proportion of Latinx respondents reporting feeling depressed and feelings of worthlessness and self-rated health by dimensions of ethnicity^a, n=450

	Feelings of Worthlessness ^b	Self-Rated Health ^b		
		Poor/Fair	Good	Very Good/Excellent
Attributional Variables				
Ancestry				
US born parents	.188	.316	.314	.370
Foreign-born parents	.193	.269	.267	.464
Language				
English primary language	.202	.301	.272	.428
Non-English primary language	.152	.198	.305	.498
Religion				
Catholic	.202	.297	.265	.439
Non-Catholic	.178	.255	.299	.447
Relational Variables				
Skin color				
Very light	.218	.236	.300	.463
Light	.189	.213	.272	.515
Medium	.283	.315	.193	.493
Dark	.129	.334	.307	.359 ^a
Racial/ethnic misclassification				
Consistent racial/ethnic classification	.161 ^a	.301	.266	.433
Racial/ethnic misclassification	.298	.209	.322	.470
Racial/ethnic identity salience				
Important	.205	.277	.250	.473
Not important	.157	.288	.354	.358
Latinx racial choice				
White Latinx	.182	.262	.307	.431
Other Latinx	.201	.297	.252	.451

a. Statistically significant, $P < .10$.

b. Chi-squared tests performed to determine significant differences within dimension.

cluding relational and attributional dimensions together. Results of the model are not shown but available upon request. The full models do not include “Latinx race” because that question was only asked of Latinx respondents. No dimensions were significant in these models, due in part to the large number of dimensions included and sample size.

Following the estimation of these models, we used the post-estimation techniques (Stata’s margins command) to estimate predicted probabilities for likelihood of feeling worthlessness and excellent/very

good health by holding constant levels of different combinations of dimensions in order to reveal how they interact together. We then plotted these estimates (using Stata’s marginsplot command). Informed by Table 1, our combinations of dimensions, or what we consider ideal types are: high relational/high attributional; high relational/low attributional; low relational/high attributional; low relational/low attributional. Latinx respondents with high relational dimension of ethnicity were those with dark skin, consistent racial classification (ie,

self-identified and how others identify), and felt race was important to them. Those with high attributional dimensions of ethnicity were Latinx respondents who did not primarily use English at home, had foreign-born parents, and were Catholic.

RESULTS

Table 2 presents descriptive statistics. Latinxs are significantly younger (mean age = 39.94, $p < .001$) and have significantly lower SES than Whites (.180 SD below mean,

Table 4. Logistic regression model of feelings of worthlessness by dimensions of ethnicity, PALS 2016, N=1733

	Worthlessness ^a	
	Unadjusted, OR (95%,CI)	Adjusted ^b OR (95%,CI)
General race/ ethnic classification	Model 1 ^d	Model 2
Latinx	1.508* (1.018, 2.234)	1.130 (.721, 1.771)
Attributional variables		
Ancestry	Model 3	Model 4 ^f
US-born parents Latinx	1.519 ^e (.934, 2.470)	1.098 (.638, 1.890)
Foreign-born parents Latinx	1.471 (.765, 2.829)	1.244 (.622, 2.488)
Language	Model 5 ^c	Model 6 ^f
English primary language Latinx	1.605 ^d (1.047, 2.462)	1.196 (.737, 1.941)
Non-English language Latinx	1.136 (.545, 2.370)	.868 (.411, 1.834)
Religion	Model 7	Model 8 ^f
Catholic Latinx	1.602 ^e (.975, 2.633)	1.210 (.694, 2.108)
Non-Catholic Latinx	1.371 (.777, 2.418)	1.014 (.572, 1.800)
Relational variables		
Skin color	Model 9 ^c	Model 10 ^f
Very light Latinx	1.768 (.825, 3.788)	1.353 (.649, 2.820)
Light Latinx	1.475 (.758, 2.868)	1.204 (.575, 2.524)
Medium Latinx	2.509 ^d (1.214, 5.187)	1.904 ^e (.897, 4.040)
Dark Latinx	1.025 (.578, 1.820)	.706 (.366, 1.363)
Racial/ethnic misclassification	Model 11 ^e	Model 12 ^f
Consistent racial/ethnic classification	1.218 (.741, 2.001)	.873 (.507, 1.502)
Racial/ethnic misclassification	2.691 ^d (1.480, 4.892)	2.335 ^e (1.240, 4.397)
Racial/ethnic identity salience	Model 13 ^c	Model 14 ^f
Important	1.639 ^d (1.059, 2.537)	1.192 (.738, 1.926)
Not important	1.178 (.674, 2.059)	.956 (.486, 1.878)
Latinx racial choice	Model 15	Model 16 ^f
White Latinx	1.414 (.835, 2.394)	1.108 (.634, 1.938)
Other Latinx	1.594 ^d (1.012, 2.511)	1.149 (.663, 1.994)

a. All models use non-Latinx Whites as the referent group.

b. Adjusted models (column 2) control for age, sex, and socioeconomic status.

c. p < .10, d. P < .05, e. P < .01, f. P < .001, significance of F-statistic reported for each model.

p < .001). For example, the average education in the sample was some college, consistent with the average education for Whites, but for Latinxs the average education was a high school diploma. The majority of the sample (64.1%) and Whites owned a home (67.2%), while the majority of Latinxs did not own a home (56.4%). Just over 14 percent of the total sample reported feeling worthless within the last two weeks. Latinxs were significantly more likely than Whites to report feeling worthless (19.2% compared with 13.6%,

respectively). More than 50% of the sample self-rated their health as very good or excellent (54.5%), whereas more than one in four Latinxs rated their health as poor or fair (28.0%).

Table 3 shows dimensions of ethnicity and their relationship to health among Latinxs. Latinxs who experience racial/ethnic misclassification reported that they feel worthless at a marginally significantly higher rate (29.8%) than those whose racial/ethnic classification is confirmed by others (P < .10). Dark-skinned Latinxs reported poor

or fair health at a marginally significantly higher rate (33.4%) than lighter skinned Latinxs (P < .10). On balance, however, dimensions do not differ markedly among Latinxs by dimensions of ethnicity.

Table 4 shows odds ratios and confidence intervals for separate logistic regressions of feelings of worthlessness for the nine dimensions of ethnicity, revealing numerous intergroup differences compared with Whites. Unadjusted models reveal that Latinxs reported odds of feeling worthless that are 1.5

Table 5. Ordered logistic regressions of self-reported health on dimensions of ethnicity, PALS 2016, N=1733

	Self-Rated Health ^a	
	Unadjusted, OR (95%,CI)	Adjusted ^b , OR (95%, CI)
Race	Model 1 ^e	Model 2 ^f
Latinx	.622 ^e (.461, .840)	.690 ^d (.507, .938)
Attributional variables		
Ancestry	Model 3 ^f	Model 4 ^f
US-born parents Latinx	.672 ^d (.472, .956)	.784 (.555, 1.108)
Foreign-born parents Latinx	.490 ^f (.338, .711)	.462 ^e (.289, .738)
Language	Model 5 ^e	Model 6 ^f
English primary language Latinx	.578 ^f (.432, .774)	.668 ^d (.488, .915)
Non-English language Latinx	.832 (.424,1.636)	.784 (.379,1.621)
Religion	Model 7 ^e	Model 8 ^f
Catholic Latinx	.597 ^e (.429, .830)	.699 ^c (.489, 1.000)
Non-Catholic Latinx	.661 ^d (.443, .986)	.675 ^c (.440, 1.036)
Relational variables		
Skin color	Model 09 ^e	Model 10 ^f
Very light Latinx	.712 (.437, 1.162)	.791 (.482, 1.296)
Light Latinx	.851 (.547, 1.325)	.887 (.578, 1.360)
Medium Latinx	.663 (.361, 1.218)	.706 (.390, 1.278)
Dark Latinx	.460 ^f (.324, .653)	.536 ^e (.350, .821)
Racial/ethnic misclassification	Model 11 ^e	Model 12 ^f
Consistent racial/ethnic classification	.585 ^e (.412, .831)	.675 ^d (.477, .956)
Racial/ethnic misclassification	.760 (.439, 1.316)	.738 (.436, 1.250)
Racial/ethnic identity salience	Model 13 ^e	Model 18 ^f
Important	.677 ^d (.502, .913)	.802 (.596, 1.081)
Not important	.505 ^e (.329, .777)	.475 ^e (.305, .739)
Latinx racial choice	Model 15 ^e	Model 16 ^f
White Latinx	.629 ^d (.431, .917)	.678 ^c (.458, 1.005)
Other Latinx	.616 ^e (.440, .863)	.701 ^d (.493, .996)

a. All models use non-Latinx Whites as the referent group.
 b. Adjusted models (column 2) control for age, sex, and socioeconomic status.
 c. P < .10, d. P < .05, e. P < .01, f. P < .001, significance of F-statistic reported for each model.

times greater than Whites (P<.05), and greater within-group variation. Models relating to attributional ethnicity show that Latinxs whose primary language is English (OR=1.6 P<.05) and who identify as Catholic (OR=1.6 P<.10) were markedly more likely to report feeling worthless compared with Whites. In general, findings modestly suggest that Latinxs who are more acculturated or have a weaker connection to attributes of Latinx culture are at greater risk for mental health problems.

Table 4 also shows that medium-

skinned Latinxs’ odds of having feelings of worthlessness were two and a half times greater than Whites (OR=2.5; P<.05). Latinxs who racially identify as other (OR=1.6; P<.05), who identify their race/ethnicity as salient (OR=1.6; P<.05), or whose race/ethnicity is misclassified by others (OR=2.7 P<.01), were significantly more likely to report feeling worthless compared with Whites. Findings suggest that Latinxs affiliated with a racialized-minority position were most at-risk for feelings of worthlessness. How-

ever, when adjusting for age, sex, and SES, the only significant association was that Latinxs whose racial/ethnic category was misclassified (OR=2.3, P<.01) or with a medium-skin tone (OR=1.9 P<.1) had higher odds than Whites of feeling worthless.

Table 5 displays odds ratios for self-rated health. Unadjusted models reveal the odds of reporting better health was lower for Latinxs than Whites (OR=.62; P<.01), and display greater within-group variation. Models pertaining to attributional dimensions of ethnic-

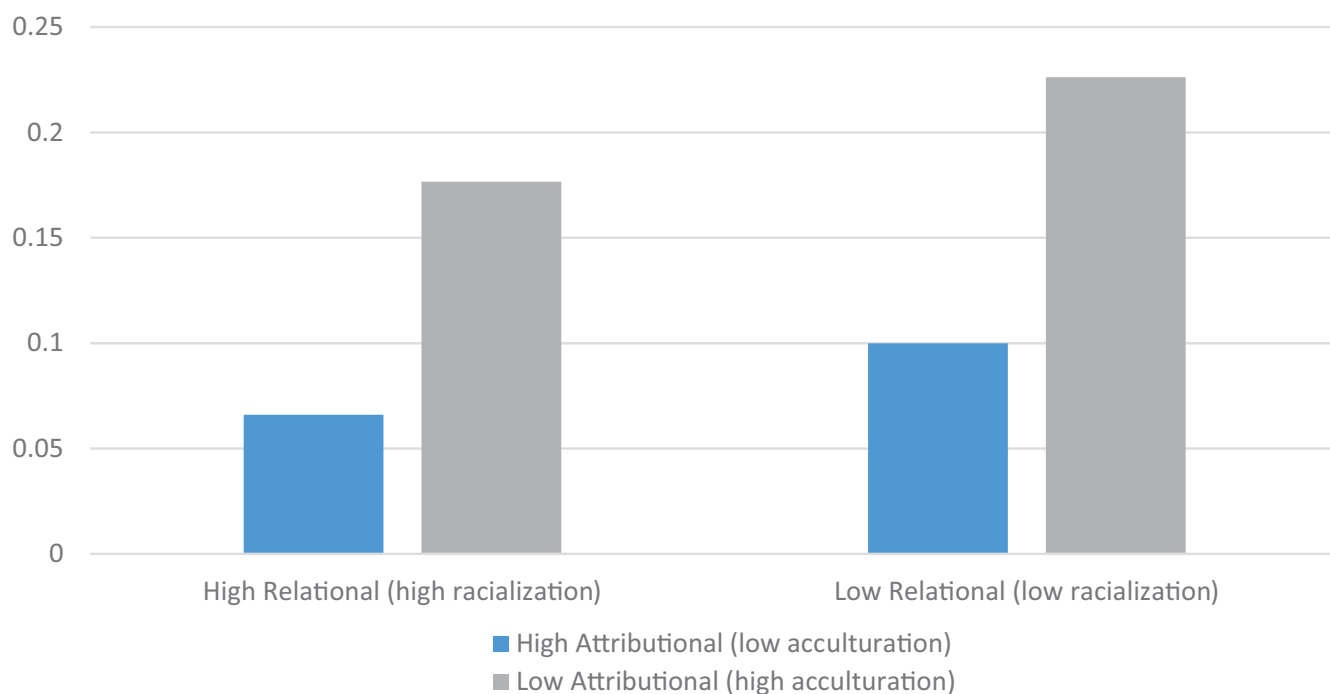


Figure 1. Predicted probability of feelings of worthlessness among Latinxs for attributional and relational ideal types

ity show that Latinxs who identify as Catholic (OR=.60; $P<.01$) or non-Catholic (OR=.66; $P<.05$), whose primary language is English (OR=.58; $P<.001$), whose parents are foreign-born (OR=.49; $P<.001$) or not (OR=.67; $P<.05$) were all significantly less likely than Whites to report better health. These findings for self-rated health are more mixed than those predicting worthlessness.

The odds of dark-skinned Latinxs reporting better health were half that of Whites (OR=.46; $P<.001$). Latinxs who racially identify as other (OR=.62; $P<.01$) or White (OR=.63; $P<.05$) reported worse health compared with Whites, as do those who believe their race/ethnicity

is not important (OR=.51; $P<.01$), and those who believe their race/ethnicity is important (OR=.68, $P<.05$). Additionally, those whose racial classification was confirmed by others (OR=.59 $P<.01$) had markedly lower odds than Whites of reporting better health. These findings suggest mixed results for relational (racialized) dimensions of ethnicity and self-rated health. Adjusted models indicate that having foreign-born parents (OR=.46; $P<.01$), speaking English as a primary language (OR=.67; $P<.05$), being dark-skinned (OR=.54; $P<.001$), being consistently racially classified (OR=.68; $P<.05$), indicating that one's racial/ethnic identity is not

important (OR=.48; $P<.01$), and racially identifying as other (OR=.70; $P<.05$) continued to be markedly and negatively associated with Latinxs' self-reported health, when compared with Whites, net of the controls. These findings suggest a clear association between select relational *and* attributional dimensions of ethnicity and negative self-rated health.

Finally, we ran models complete with available dimensions asked of White and Latinx respondents to ascertain how different combinations matter for health. We then estimated predicted probabilities of feelings of worthlessness and excellent/very good health for four attributional and relational ideal types:

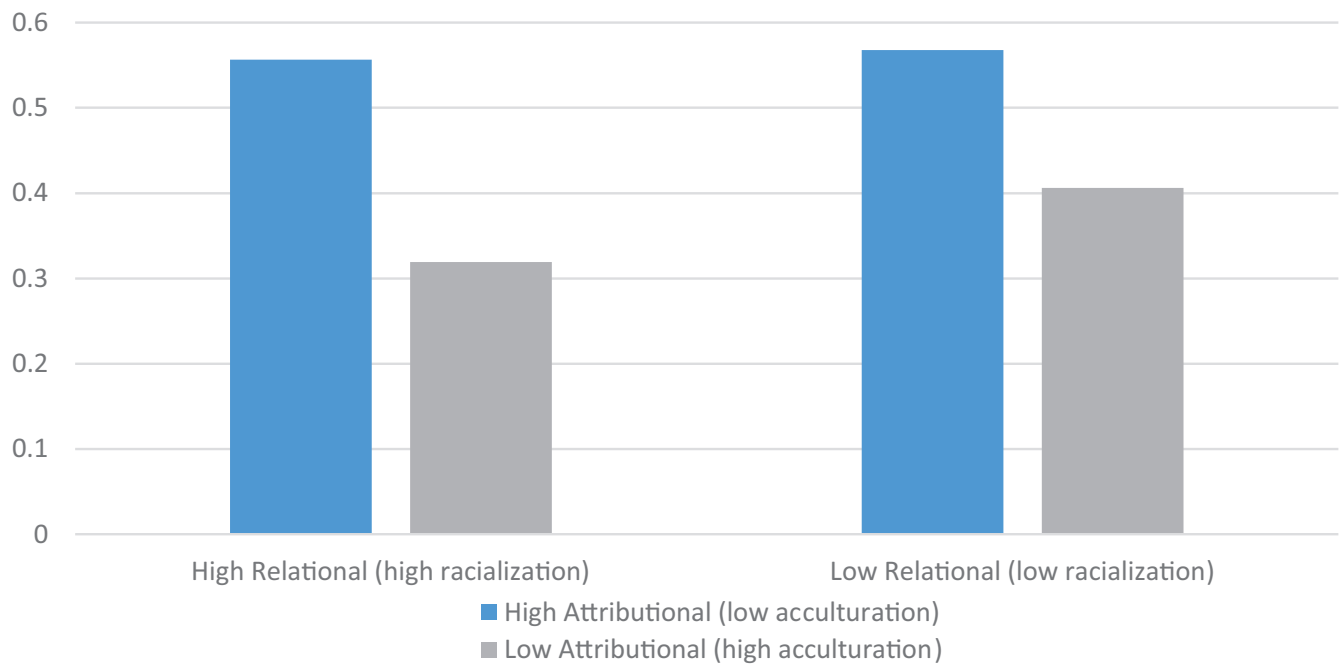


Figure 2. Predicted probability of excellent/very good health among Latinxs for attributional and relational ideal types

1) high relational (high racialization), high attributional (low acculturation); 2) high relational (high racialization), low attributional (high acculturation); 3) low relational (low racialization), high attributional (low acculturation); 4) low relational (low racialization), low attributional (high acculturation).

Figure 1 depicts the predicted probability of having feelings of worthlessness among Latinxs for four attributional and relational ideal types. All were significant, which means the probabilities were significantly different than zero. As expected, Latinxs respondents with low attributional dimensions (high acculturation) had high probabilities of reporting feelings of worth-

lessness, but the highest probability across all ideal types was among those who had low attributional and low relational scores ($Pr=.23$; $P<.001$). This suggests acculturation more strongly influences the relationship to feelings of worthlessness than relational dimensions when all attributes are used in the model.

Figure 2 depicts the predicted probability of reporting excellent or very good health among Latinxs for attributional and relational ideal types. Latinxs respondents with high relational but low attributional dimensions of ethnicity had the lowest probability of reporting excellent or very good health ($Pr=.32$, $P<.001$), while those with low relational but high attributional dimen-

sions of ethnicity had the highest probability of reporting excellent or very good health ($Pr=.57$, $P<.001$).

DISCUSSION

This study offers a more comprehensive understanding of intra/intergroup variations in Latinxs health. Our analysis reveals that attributional and relational dimensions of ethnicity condition health differently, highlighting nuances that are not reflected in the broader definition of ethnicity.

Relational dimensions indexing “a groups location within the United States social hierarchy of socially constructed, groupings (ie,

ances)^{1,p253} were generally predictive of feelings of worthlessness. Findings suggest that relational dimensions of ethnicity were associated with adverse mental health among Latinxs, whereas self-rated health was less straightforward. Overall, though, we contend that the process of racialization conditions negative health outcomes

Our analysis reveals that attributional and relational dimensions of ethnicity condition health differently, highlighting nuances that are not reflected in the broader definition of ethnicity.

for the subgroup of Latinxs who share a minority status that reflects their disadvantaged placement within the US racial hierarchy.

In contrast, attributional dimensions that capture “the unique sociocultural characteristics of groups”^{1,p252} are associated with better health outcomes. Yet, Latinxs who were more acculturated (eg, English speaking, US citizenship) reported increased feelings of worthlessness. These findings are generally consistent with the

Latinx health paradox.¹⁴ Though findings regarding self-rated health were less pronounced, as consistent with past research that questions the validity of the measure for Latinx,^{10,32} the results overall, and from the comprehensive models and predicted probabilities more specifically, emphasize how attributional and relational dimensions operate differently and give support for our study hypotheses. Collectively, this suggests Latinxs at most risk for health problems are those who score high in relational dimensions and low in attributional dimensions—or Latinx who are highly racialized and acculturated.

Study Limitations

While PALS data were beneficial for this exploratory analysis because it allowed us to examine multiple dimensions relating to race and ethnicity, we were limited in our analysis to a one-item measure of mental health (worthlessness), which is typically used in scales consisting of multiple items that measure depressive symptoms and psychological distress.³⁴ Nevertheless, considering the under-reporting of depression among Latinxs,²⁹ reporting feelings of worthlessness might actually capture a larger proportion of respondents with psychological distress. Additional objective mental and physical health indicators should also be explored, given validity issues related to self-rated health as well.³² Future research should additionally expand analyses to other populations, such as Asian Americans or White ethnic groups, to determine whether results are generalizable.

CONCLUSION

In conclusion, results suggest a cautionary note to public health scholars who use a broad definition of ethnicity³⁵ and support Ford and Harawa’s appeal to distinguish attributional from relational dimensions of ethnicity.¹ In keeping with critical race theory,³⁶ we further suggest decoupling the concept of race from ethnicity to emphasize the structural underpinnings of the former and cultural underpinnings of the latter.³⁶ As argued by critical race and ethnic scholars, Valdez and Golasz-Boza, “it is incomplete to conclude that the positioning of groups along one structural dimension (ie, “race”) can reasonably predict their life chances, because those who identify as such are likely to vary across other salient dimensions as well (ie, ethnicity).”^{36,p24} Ultimately, a multidimensional approach has the potential to better illuminate why health disparities exist, which is especially needed to address immigrant health,³⁷ and thereby contributes to critical race public health praxis’ goal of health equity.^{4,5,7,37}

CONFLICT OF INTEREST

No conflicts of interest to report.

AUTHOR CONTRIBUTIONS

Research concept and design: Laster Pirtle, Valdez, Daniels; Acquisition of secondary data: Laster Pirtle; Data analysis and interpretation: Laster Pirtle, Daniels, Duenas, Castro; Manuscript draft: Laster Pirtle, Valdez, Daniels, Duenas, Castro; Statistical expertise: Laster Pirtle, Valdez, Daniels; Administrative: Daniels, Duenas, Castro; Supervision: Laster Pirtle, Valdez

REFERENCES

1. Ford CL, Harawa NT. A new conceptualization of ethnicity for social epide-

- miologic and health equity research. *Soc Sci Med.* 2010;71(2):251-258. <https://doi.org/10.1016/j.socscimed.2010.04.008> PMID:20488602
2. Lee C. "Race" and "ethnicity" in biomedical research: how do scientists construct and explain differences in health? *Soc Sci Med.* 2009;68(6):1183-1190. <https://doi.org/10.1016/j.socscimed.2008.12.036> PMID:19185964
 3. LaVeist TA. Beyond dummy variables and sample selection: what health services researchers ought to know about race as a variable. *Health Serv Res.* 1994;29(1):1-16. PMID:8163376
 4. Garcia JA, Sanchez GR, Sanchez-Youngman S, Vargas ED, Ybarra VD. Race as lived experience: the impact of multi-dimensional measures of race/ethnicity on the self-reported health status of Latinos. *Du Bois Rev.* 2015;12(2):349-373. <https://doi.org/10.1017/S1742058X15000120> PMID:26681972
 5. Kaplan JB. The quality of data on "race" and "ethnicity": implications for health researchers, policy makers, and practitioners. *Race Soc Probl.* 2014;6(3):214-236. <https://doi.org/10.1007/s12552-014-9121-6>
 6. Ford CL, Airhihenbuwa CO. Critical Race Theory, race equity, and public health: toward antiracism praxis. *Am J Public Health.* 2010;100(S1)(suppl 1):S30-S35. <https://doi.org/10.2105/AJPH.2009.171058> PMID:20147679
 7. Ford CL, Airhihenbuwa CO. Commentary: just what is critical race theory and what's it doing in a progressive field like public health? *Ethn Dis.* 2018;28(1)(suppl 1):223-230. <https://doi.org/10.18865/ed.28.S1.223> PMID:30116090
 8. Flores, A. How the U.S. Hispanic population is changing. Pew Research Center. Sept 18, 2017. Last accessed February 24, 2019 from <http://www.pewresearch.org/fact-tank/2017/09/18/how-the-u-s-hispanic-population-is-changing/>.
 9. González Burchard E, Borrell LN, Choudhry S, et al. Latino populations: a unique opportunity for the study of race, genetics, and social environment in epidemiological research. *Am J Public Health.* 2005;95(12):2161-2168. <https://doi.org/10.2105/AJPH.2005.068668> PMID:16257940
 10. Markides KS, Coreil J. The health of Hispanics in the southwestern United States: an epidemiologic paradox. *Public Health Rep.* 1986;101(3):253-265. PMID:3086917
 11. Vega WA, Kolody B, Aguilar-Gaxiola S, Alderete E, Catalano R, Caraveo-Anduaga J. Lifetime prevalence of DSM-III-R psychiatric disorders among urban and rural Mexican Americans in California. *Arch Gen Psychiatry.* 1998;55(9):771-778. <https://doi.org/10.1001/archpsyc.55.9.771> PMID:9736002
 12. Lara M, Gamboa C, Kahramanian MI, Morales LS, Bautista DEH. Acculturation and Latino health in the United States: a review of the literature and its sociopolitical context. *Annu Rev Public Health.* 2005;26(1):367-397. <https://doi.org/10.1146/annurev.publhealth.26.021304.144615> PMID:15760294
 13. Cuevas AG, Dawson BA, Williams DR. Race and skin color in Latino health: an analytic review. *Am J Public Health.* 2016;106(12):2131-2136. <https://doi.org/10.2105/AJPH.2016.303452> PMID:27736206
 14. Alegría M, Canino G, Shrout PE, et al. Prevalence of mental illness in immigrant and non-immigrant U.S. Latino groups. *Am J Psychiatry.* 2008;165(3):359-369. <https://doi.org/10.1176/appi.ajp.2007.07040704> PMID:18245178
 15. Wallace PM, Pomery EA, Latimer AE, Martinez JL, Salovey P. A review of acculturation measures and their utility in studies promoting Latino health. *Hisp J Behav Sci.* 2010;32(1):37-54. <https://doi.org/10.1177/0739986309352341> PMID:20582238
 16. Borrell LN, Dallo FJ. Self-rated health and race among Hispanic and non-Hispanic adults. *J Immigr Minor Health.* 2008;10(3):229-238. <https://doi.org/10.1007/s10903-007-9074-6> PMID:17653864
 17. Lommel LL, Chen J-L. The relationship between self-rated health and acculturation in Hispanic and Asian adult immigrants: a systematic review. *J Immigr Minor Health.* 2016;18(2):468-478. <https://doi.org/10.1007/s10903-015-0208-y> PMID:25894534
 18. Lujan J, Campbell HB. The role of religion on the health practices of Mexican Americans. *J Relig Health.* 2006;45(2):183-195. <https://doi.org/10.1007/s10943-006-9019-8>
 19. Paradies Y. A systematic review of empirical research on self-reported racism and health. *Int J Epidemiol.* 2006;35(4):888-901. <https://doi.org/10.1093/ije/dyl056> PMID:16585055
 20. Ramos B, Jaccard J, Guilamo-Ramos V. Dual ethnicity and depressive symptoms: implications of being black and Latina/o in the united states. *Hisp J Behav Sci.* 2003;25(2):147-173. <https://doi.org/10.1177/0739986303025002002>
 21. Perreira KM, Telles EE. The color of health: skin color, ethnoracial classification, and discrimination in the health of Latin Americans. *Soc Sci Med.* 2014;116:241-250. <https://doi.org/10.1016/j.socscimed.2014.05.054> PMID:24957692
 22. Hughes M, Kiecolt KJ, Keith VM, Demo DH. Racial identity and well-being among African Americans. *Soc Psychol Q.* 2015;78(1):25-48. <https://doi.org/10.1177/0190272514554043>
 23. Ai AL, Aisenberg E, Weiss SI, Salazar D. Racial/ethnic identity and subjective physical and mental health of Latino Americans: an asset within? *Am J Community Psychol.* 2014;53(1-2):173-184. <https://doi.org/10.1007/s10464-014-9635-5> PMID:24464428
 24. López N, Vargas ED, Juarez M, Cacari-Stone L, Bettez S. What's your "street race"? Leveraging multidimensional measures of race and intersectionality for examining physical and mental health status among Latinxs. *Sociol Race Ethn (Thousand Oaks).* 2018;4(1):49-66. <https://doi.org/10.1177/2332649217708798> PMID:29423428
 25. Magaña López M, Bevans M, Wehrlen L, Yang L, Wallen GR. Discrepancies in race and ethnicity documentation: a potential barrier in identifying racial and ethnic disparities. *J of Racial & Ethn Health Disp.* 2017;4(5):812-818. <https://doi.org/10.1007/s40615-016-0283-3>
 26. Laster Pirtle WN, Brown TN. Inconsistency within expressed and observed racial identifications: implications for mental health status. *Sociol Perspect.* 2016;59(3):582-603. <https://doi.org/10.1177/0731121415602133>
 27. Emerson MO, Sikkink D, James AD. Portraits of American life study, 1st wave, 2006. Last accessed from April 21, 2020 from <http://www.thearda.com/Archive/Files/Descriptions/PALS.asp>
 28. Perry SL. Pornography use and depressive symptoms: examining the role of moral incongruence. *Soc Ment Health.* 2018;8(3):195-213. <https://doi.org/10.1177/2156869317728373>
 29. Nadeem E, Lange JM, Edge D, Fongwa M, Belin T, Miranda J. Does stigma keep poor young immigrant and U.S.-born Black and Latina women from seeking mental health care? *Psychiatr Serv.* 2007;58(12):1547-1554. <https://doi.org/10.1176/ps.2007.58.12.1547> PMID:18048555
 30. Idler, EL, and Yael Benyamini. Self-rated health and mortality: a review of twenty-seven community studies. *J of Health and Soc Behav.* 1997; 21-37.
 31. Flores-Gonzalez, N. The racialization of Latina/os: The meaning of Latina/o identity for the second generation. *Latina/o Studies J.* 1999;10(3): 3-31.
 32. Finch BK, Hummer RA, Reindl M, Vega WA. Validity of self-rated health among Latino(a)s. *Am J Epidemiol.* 2002;155(8):755-759. <https://doi.org/10.1093/aje/155.8.755> PMID:11943694
 33. Gans HJ. Reflections on symbolic ethnicity. *Ethnicities.* 2009;9(1):123-130. <https://doi.org/10.1177/14687968090090010502>
 34. Posner SF, Stewart AL, Marin G, Pérez-Stable EJ. Factor variability of the Center

Conceptualizing Ethnicity Among Latinxs - Laster Pirtle et al

for Epidemiological Studies Depression scale (CES-D) among urban Latinxs.

Ethn Health. 2001;6(2):137-144. <https://doi.org/10.1080/13557850120068469>

doi.org/10.1080/13557850120068469

PMID:11488294

35. Laws MB, Heckscher RA. Racial and ethnic identification practices in public health data systems in New England. *Public Health Rep*. 2002;117(1):50-61. [https://doi.org/10.1016/S0033-3549\(04\)50108-5](https://doi.org/10.1016/S0033-3549(04)50108-5) PMID:12297682
36. Valdez Z, Golash-Boza T. US racial and ethnic relations in the twenty-first century. *Ethn Racial Stud*. 2017;40(13):1-29. <https://doi.org/10.1080/01419870.2016.1262052>
37. Viruell-Fuentes EA. Beyond acculturation: immigration, discrimination, and health research among Mexicans in the United States. *Soc Sci Med*. 2007;65(7):1524-1535.