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The relationship between political efficacy and self-rated health: An analysis of Mexican, Puerto Rican, and Cuban subgroups compared to non-Latinx whites in the United States

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A B S T R A C T

Latinx represent a growing population in the United States (US) that continue to experience a disproportionate burden of disease. However, health disparities vary across Latinx subgroups, including Mexican, Puerto Rican, and Cuban communities, particularly when assessing self-rated health. Given the nature of political exclusion in the US, these differences may be associated with underexplored political factors, or political determinants of health, within the social environment that distinctly shape health among racial and ethnic minorities. To explore potential pathways that connect the political environment to individual-level health outcomes among Latinx subgroups, political efficacy (or one's perceptions about one's power to influence political affairs) was assessed as a correlate of self-rated health. We used secondary data from the 2016 Collaborative Multiracial Post-election Survey to conduct ordered logistic regression analysis to determine whether two domains of political efficacy, internal and external political efficacy, were correlates of self-rated health among Mexican, Puerto Rican, and Cuban subgroups as compared to non-Latinx whites in the US. We also tested for differential associations across Latinx subgroups as compared to non-Latinx whites. The sample consisted of 3156 respondents (1486 Mexicans, 484 Puerto Ricans, 159 Cubans and 1027 non-Latinx whites). Among Puerto Ricans, results revealed that lower levels of internal political efficacy were associated with higher levels of self-rated health. Conversely, among other subgroups, positive associations between internal political efficacy and self-rated health were observed. This study provides empirical evidence of a relationship between internal political perceptions and health perceptions that has not previously been established within the Latinx health disparities literature. Future investigations should continue to examine pathways that connect political determinants to individual-level health outcomes, particularly among communities that disproportionately experience political exclusion.

1. Introduction

In the United States (US), individuals who identify as part of the Latinx community experience a disproportionate number of health disparities across a myriad of health outcomes (Boen & Hummer, 2019; National Center for Health Statistics, 2016; Vega et al., 2009). This unequal burden of disease is of particular concern as the Latinx community represents 19% of the US population or 62.5 million people (Lopez et al., 2022), of which 37.2 million identify as Mexican, 5.8 million are Puerto Rican, and 2.4 million are Cuban (Krogstad et al., 2022). However, findings in the Latinx health literature are mixed in the area of self-rated health (SRH) (Finch et al., 2002; Franks et al., 2003; Viruell-Fuentes et al., 2011) – a subjective measure of general well-being that serves as a strong independent predictor of morbidity and mortality (Idler & Benyamini, 1997).

Some studies demonstrate that Latinx individuals are more likely to report worse levels of SRH when compared to non-Latinx whites (Benjamins et al., 2012; Marquez-Velarde et al., 2020). Yet, others report better levels of SRH among Latinx individuals when compared to non-Latinx whites (Kennedy et al., 1998; Lo et al., 2020). While there are a number of reasons for these mixed findings, a particular pattern emerges within the literature, such that results appear to vary by Latinx subgroups (Zsembik & Fennell, 2005). For instance, a study conducted in 2012 found that individuals who identified as Puerto Rican were more likely to report lower levels of SRH when compared to Mexicans, Cubans, and non-Latinx whites in the US (Benjamins et al., 2012). Similarly, a secondary analysis conducted in 2019 also demonstrated that Puerto Ricans had the lowest levels of SRH when compared to other Latinx subgroups, with some of the best SRH outcomes observed among members of the Cuban community in the US (Lo et al., 2020).

Decades of social determinants of health research would suggest that these disparities are largely the result of the social factors that differentially shape life chances for racial and ethnic minorities in the US, including Latinx (Beckfield & Krieger, 2009; Braveman et al., 2011;

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Braveman & Gottlieb, 2014; Islam, 2019). SRH has been used to explore numerous social mechanisms that give rise to health differences among Latinx populations, such as migration circumstances (Torres & Wallace, 2013), precarious employment (Kim et al., 2008), perceived discrimination (Todorova et al., 2010), and social isolation (Steel et al., 2018). However, political determinants and the pathways by which they manifest into poor health outcomes, including poor SRH, remain under-addressed within the health disparities literature (Dawes, 2020; Mishori, 2019). This is especially the case among the Latinx subgroups that are aggregated into the larger Latinx category. These stand as significant gaps in the literature as there is an increasing recognition of the need to examine Latinx heterogeneity in health research (Kauh et al., 2021) and investigate the downstream impacts of more upstream determinants of racial and ethnic health disparities, particularly the political determinants of health (PDoH) (Mishori, 2019).

1.1. Political determinants of health and racial/ethnic health inequities

As defined by Daniel Dawes in his 2020 publication, the "political determinants of health involve the systemic process of structuring relationships, distributing resources, and administering power, operating simultaneously in ways that mutually reinforce or influence one another to shape opportunities that either advance health equity or exacerbate health inequities (p.44)" (Dawes, 2020). As proposed by the PDoH model (Dawes, 2020), three key domains include: (1) *voting* - the voice of the electorate; (2) *government* – the elected decision makers; and (3) *policy* – the codified decisions of the elected representatives (Dawes, 2020). Each of these domains act upon several political constructs, including political participation or engagement.

Political participation can take many forms, including volunteering for a campaign, casting a vote in an election, or attending a protest (van Deth, 2014). Within communities of color, the ability to engage in these political behaviors has been uniquely shaped by governmental policies designed to exclude (Hing, 2018). Historically, individuals belonging to racially/ethnically minoritized groups have been disproportionately impacted by restrictive policies that have served to suppress political participation (Hench, 1998), including voter identification laws (Darrah-Okike et al., 2021) and the continued disenfranchisement of individuals who have previously been incarcerated (Homan & Brown, 2022). Although the specific mechanisms by which these structural influences give rise to poor health are underexplored, emerging scholarship does illuminate various connections between the political landscape and health.

In recent years, public health researchers have begun to study the impact of voter suppression and political disenfranchisement on population health outcomes, positing that these restrictive political practices perpetuate health inequities (Hing, 2018; Homan & Brown, 2022). For example, restricting engagement in the voting process excludes racial and ethnic minorities from having a voice in shaping the public policies that determine the allocation of resources for the purposes of promoting health within their communities (Purtle, 2013). Additionally, a recent study found that health disparities disproportionately increase premature mortality among racial and ethnic minorities, thereby, reducing their numbers amongst the electorate in the US (Rodriguez, 2018). However, the question of how this political environment is internalized at the individual-level to influence our physical and mental well-being requires additional exploration.

Embodiment and historical trauma scholars have indicated that social exposures to oppression cause trauma that manifests in the form of negative physiological and psychological health outcomes (Krieger, 1999; Petteway et al., 2019; Sotero, 2006). One identified pathway is through the wear and tear caused by increases in allostatic load resulting from heightened exposures to oppression and exclusion (Gale et al., 2020; Purtle, 2013). Another health harming pathway may be via the influence of disempowerment (Morey et al., 2021). In a recent study, researchers demonstrated that perceptions of an exclusionary socio-political context after the 2016 presidential election were linked to negative population-level mental health outcomes in the US, and argued that this was the result of symbolic disempowerment (Morey et al., 2021). Partly based on these previous findings, we argue that political disenfranchisement and exclusion are strategies used by the dominant group to maintain the status quo (Dawes, 2020; Purtle, 2013; Rodriguez, 2018) that may challenge feelings of agency or control over one's life chances, also known as self-efficacy (Bandura, 1998, 2010).

1.2. Self-efficacy

As a long-standing concept used in health promotion, there is a rich literature regarding the health significance of self-efficacy across an array of health conditions (Khodadadi et al., 2022; Kollannoor-Samuel et al., 2012; O'Leary, 1985; Peters et al., 2019; Sarkar et al., 2007; Sheeran et al., 2016). For example, a study conducted among patients with coronary heart disease revealed that lower levels of cardiac self-efficacy (i.e., an individual's confidence in their ability to attend to their cardiac health) were associated with poor health status (Sarkar et al., 2007). A meta-analysis conducted in 2016 assessed the results from 204 experimental tests and demonstrated that interventions that modified attitudes, norms, and self-efficacy are most effective in promoting health behavior change (Sheeran et al., 2016). The findings from this meta-analysis provide experimental support for the predictive strength of self-efficacy in determining health outcomes (Sheeran et al., 2016). It stands to reason that its variants, in this case political efficacy (Caprara et al., 2009), are also likely to be associated with SRH. Therefore, examining the associations between individual perceptions of SRH and political efficacy may serve to reveal a proximal pathway by which the political context influences health inequities at the individual-level.

1.3. Political efficacy

Political efficacy was derived from the psychological construct of self-efficacy and speaks to one's perceptions about their power to influence political affairs (Caprara et al., 2009; Poortinga, 2012). Since its introduction to the political attitudes literature in the 1950s (Campbell et al., 1954), political efficacy has evolved from a unidimensional to a bidimensional construct to distinguish between internal and external political efficacy. While *internal political efficacy (IPE)* captures perceptions of one's competence in understanding and participating in the political process (Morrell, 2003), one's perceptions about whether political systems or agents are responsive to the demands of citizens represents the domain of *external political efficacy (EPE)* (Gil de Zúñiga et al., 2017). These domains have been established as meaningfully different within the political efficacy literature (Wolak, 2018) and warrant exploration as separate domains of the political efficacy construct that may relate to SRH, distinctly.

1.3.1. Political efficacy and the Latinx community in the United States

Studies that have examined political efficacy within the Latinx community have found some notable differences in the ways in which political efficacy manifests for Latinx as compared to non-Latinx whites (Michelson, 2000; Stokes-Brown, 2009). In 2000, an early study of political efficacy and political participation, conducted in Chicago, found that individuals who identify as Latinx were more likely to report lower levels of IPE when compared to non-Latinx whites (Michelson, 2000). Additionally, Latinx were more likely to report higher levels of EPE than IPE, suggesting higher levels of confidence in external political forces than in one's individual abilities to influence political outcomes (Michelson, 2000). Further, a study conducted in 2015 found that individuals who identified as Latinx reported lower levels of both IPE and EPE when compared to other racial/ethnic groups in the US (Salzman & Reilly, 2015).

However, studies of political efficacy among Latinx have also

identified subgroup differences within this larger ethnic category, specifically among Mexican, Puerto Rican and Cuban subgroups (Michelson, 2000, 2001; Stokes-Brown, 2009). For instance, Puerto Ricans born in the US have been observed to have lower levels of IPE and EPE (Michelson, 2000). Similarly, Puerto Ricans have been observed to have lower levels of political trust, known to shape feelings of EPE (Craig, 1979), when compared to other racial/ethnic minorities and non-Latinx whites (Michelson, 2000, 2001). By contrast, Cubans have been found to be more likely to have a positive view of the federal government than Mexicans or Puerto Ricans (Stokes-Brown, 2009). Despite these findings, the literature on political efficacy among Latinx is limited.

1.4. The Present Study

Historically, individuals who identify as Mexican, Puerto Rican, and Cuban have represented the three largest Latinx subgroups in the US (Krogstad et al., 2022). However, these Latinx subgroups are often nested within the larger Latinx category, which acts as a structurally limiting factor in the advancement of the Latinx health disparities literature (Zambrana et al., 2021). Additionally, studies engaging political efficacy as a correlate of health are not found within the Latinx health disparities space. Considering the existing variability in political efficacy and SRH among Latinx subgroups, this area warrants future exploration. Further, there is some evidence to support that political efficacy is positively associated with SRH (Poortinga, 2012). However, to our knowledge, no studies have investigated the association between political efficacy and health among Latinx subgroups in the US. In this study, we seek to fill this gap in the literature by examining the association between political efficacy and SRH among several racial/ethnic subgroups, including individuals who identify as Mexican, Puerto Rican, and Cuban as compared to individuals who identify as non-Latinx white in the US (Fig. 1).

2. Method

2.1. Data source

This study leveraged existing cross-sectional data collected within a diverse sample of voluntary respondents as part of the 2016 Collaborative Multiracial Post-election Survey (CMPS). The CMPS is a cooperative and user-content driven survey that takes place every four-years, following a presidential election season. In line with the intentions of the collaborative model, academics and political scientists across the US are invited to add items to the questionnaire. In exchange, collaborators make a financial contribution to cover the costs of survey activities. The CMPS has adapted this unique model to successfully execute a "multiracial, multiethnic, multilingual, post-election online survey on race, ethnicity, and politics in the US (p.173) (Barreto et al., 2018)." The main goal of the survey was to assess attitudes about the 2016 election; however, the survey also includes measures of political efficacy and general health. Additionally, the survey was administered in several languages, including English and Spanish.

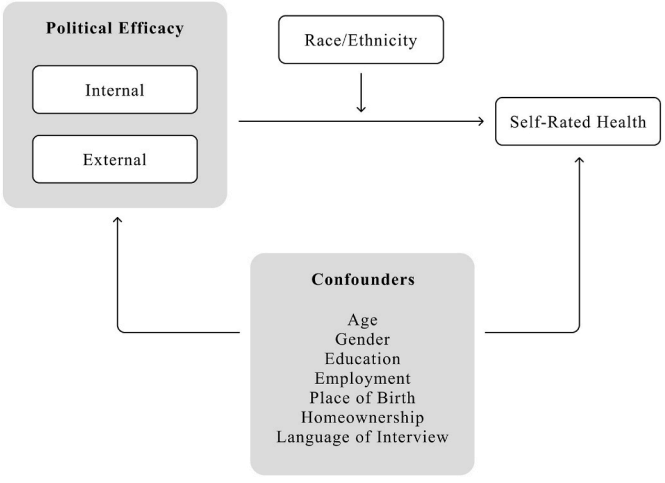

Fig. 1. Conceptual Model of the Association between Political Efficacy and Self-rated Health with Racial/Ethnic Subgroup as an Effect Modifier.

Recruitment was conducted using a random-recruit-to-web approach and included registered and non-registered voters. Registered voters within the final sample were identified using national voter registration email lists, while non-registered voters were randomly selected from email lists that were secured from online panel vendors. Of the 17,621 eligible respondents, 10,145 respondents completed the questionnaires (57.6% completion rate) from December 3, 2016 to February 15, 2017. Post-survey evaluation results revealed that the sampling methods used by the CMPS team yielded a geographically representative sample (Barreto et al., 2018). Similarly, subgroup demographic characteristics were consistent with other national surveys. For additional details regarding the CMPS protocol, refer to the peer-reviewed article published by the survey leadership team (Barreto et al., 2018).

2.2. Measures

2.2.1. Health outcome

Self-rated health (SRH) is a widely used and well-established survey measure administered to subjectively assess general health status (Finch et al., 2002). The item asks respondents, "How would you rate your overall physical health at the present time?" Responses were coded as: (1) Poor, (2) Fair, (3) Good, (4) Very Good, or (5) Excellent. To account for the full range of health perceptions reported by survey respondents, all five-levels of this variable were retained for the analyses conducted in this study and SRH was analyzed as an ordinal variable. This single-item measure has been validated for use across various demographics, including Latinx populations and has been demonstrated to be a highly effective predictor of objective health indicators, such as morbidity and mortality (Finch et al., 2002). While variability in the predictive validity of SRH has been observed among Latinx, such that individuals completing the SRH measure in Spanish are more likely to report poor health than individuals completing the measure in English (Sanchez & Vargas, 2016), this was not a concern within this secondary analysis as most respondents completed the interview in English. Additionally, language of interview was included as a control variable to account for any existing variability.

2.2.2. Exposures

The primary independent variable of interest is political efficacy (Caprara et al., 2009), which is measured by several items to capture internal and external domains of the construct (Barreto et al., 2018; Poortinga, 2012). To measure *internal political efficacy (IPE)*, a single item was used: "Sometimes politics and government seem so complicated that a person like me can't really understand what's going on." Similarly, a single-item was used to measure *external political efficacy (EPE)*: "Public officials don't care much what people like me think." Response options for both items range from (5) Strongly disagree, which indicates high levels of political efficacy, to (1) Strongly agree, which indicates low levels of political efficacy. For ease of interpretation, the response options for both political efficacy measures were relabeled: (1) Extremely Low, (2) Low, (3) Neutral, (4) High, (5) Extremely High. For both IPE and EPE, all five-levels of the categorical variable were also retained within the dataset and used in the analyses.

2.2.3. Effect modifier

Race/ethnicity were captured by two items in the survey. These items were recoded to create one race/ethnicity or subgroup variable that included four categories: (0) non-Latinx white, (1) Mexican, (2) Puerto Rican, and (3) Cuban.

2.2.4. Controls

The covariates included were age, gender, education, employment, homeownership, language of interview, and place of birth. The covariates represent socioeconomic and demographic characteristics that are known to influence or be associated with health outcomes and/or political factors (Beaumont, 2011; Duncan et al., 2002; Kennedy et al., 1998; Levy, 2013). To account for nativity status, language of interview (coded as 0 = English (ref.) and 1 = Spanish) and place of birth (coded as 0 = United States (ref.) and 1 = Outside of the US states, including Puerto Rico) were incorporated as controls in adjusted models (Torres & Wallace, 2013). Each covariate was coded as a categorical variable, except age (which was included as a linear term). Coding decisions for each covariate were informed by the sample distribution, as well as the standard coding practices within the public health and political science literatures.

2.3. Data analysis

To examine the association between both domains of political efficacy and SRH for the full sample, Mann-Whitney U tests of independence were used to test for racial/ethnic group differences in IPE, EPE and SRH. To assess bivariate relationships between IPE and SRH, as well as EPE and SRH, Spearman rank correlation tests were conducted separately for each racial/ethnic subgroup. To test whether the relationships between IPE and SRH and EPE and SRH were robust to confounders and moderated by racial/ethnic subgroup, ordinal logistic regression analyses were performed for the full sample and for each racial/ethnic subgroup. Within the regression analyses, SRH was entered into all unadjusted and adjusted models as a five-category health outcome; and IPE and EPE were each entered in separate models as five-category exposure variables. Additionally, racial/ethnic subgroup was entered into unadjusted and adjusted models as an effect modifier to test whether the relationships between IPE and SRH and EPE and SRH were modified by subgroup. All covariates listed in the conceptual model (Fig. 1) and described in the measures section above were included in the adjusted models. Additionally, the analyses were conducted using Stata SE 15.1. Lastly, this study used de-identified survey data for the purposes of conducting secondary quantitative analyses and it is not considered human subjects research by the Institutional Review Board.

3. Results

3.1. Sample characteristics

The study sample for this cross-sectional analysis consisted of 3156 respondents. This included 1027 non-Latinx whites (32.5% of the total sample), 1486 Mexicans (47.1% of the total sample), 484 Puerto Ricans (15.3% of the total sample), and 159 Cubans (5.1% of the total sample). As seen in Table 1, across all subgroups, most respondents were female (66.2%), completed the survey in English (92.7%), were born in the United States (83.1%), rented their home or lived with someone else (54.9%), were employed (53.0%), and were highly educated with the majority reporting some college education or greater (66.1%). The mean age of respondents in the sample was 39.8 years ($SD = 0.25$). However, as presented in Table 1, there were significant subgroup differences across all demographic and socioeconomic variables.

3.2. Differences in self-rated health, internal political efficacy, and external political efficacy for non-Latinx white, Mexican, Puerto Rican, and Cuban subgroups

We report subgroup differences in SRH, IPE and EPE, along with Mann-Whitney U tests of difference in ordinal variables (Table 2). Overall, respondents had a mean SRH score of 3.44 on a 1-to-5-point scale, with 16.7% reporting excellent health, 32.7% very good, 32.8% good, 13.6% fair and 4.2% poor. Mean SRH was lower for Puerto Rican ($M_{SRH} = 3.35$) and Mexican ($M_{SRH} = 3.39$) respondents than for other subgroups (non-Latinx White, $M_{SRH} = 3.52$; Cuban, $M_{SRH} = 3.66$). A Mann-Whitney test of difference in an ordinal variable revealed that SRH scores were significantly lower for Mexican (z-score = 3.98, $p < 0.001$) and Puerto Rican (z-score = 3.55, $p < 0.001$) respondents compared to non-Latinx whites. These differences held across each ordinal rank of SRH, supporting the use of ordinal logistic regression models. Levels of both IPE and EPE were similar across all comparison groups. On a 1-to-5-point scale, the mean IPE was 2.81, and the mean EPE was 2.50. Mann-Whitney U tests showed no significant group differences in IPE. We observed small but significant differences in EPE for Mexican ($M_{EPE} = 2.48$, z-score = 2.17, $p = 0.03$) and Puerto Rican ($M_{EPE} = 2.45$, z-score = 1.99, $p = 0.046$) subgroups when compared to non-Latinx whites (Table 2).

At the bottom of Table 2, we report Spearman rank correlation

Table 1
Descriptive Characteristics for non-Latinx white, Mexican, Puerto Rican, Cuban Subgroups, and the Full Sample (Col %).

Sample Characteristics	Subgroups									
	non-Latinx white *(n = 1027)*		Mexican *(n = 1486)*		Puerto Rican *(n = 484)*		Cuban *(n = 159)*		Full Sample *(n = 3156)*	
Sex **	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Male	384	37.39	477	32.10	143	29.55	62	38.99	1066	33.78
Female	643	62.61	1009	67.90	341	70.45	97	61.01	2090	66.22
Education ***										
High School/GED or Less	273	26.58	587	39.50	164	33.88	46	28.93	1070	33.90
Some College/2yr Degree	300	29.21	509	34.25	188	38.84	38	23.90	1035	32.79
4yr Degree or More	454	44.21	390	26.24	132	27.27	75	47.17	1051	33.30
Employment ***										
Unemployed	254	24.73	638	42.93	174	35.95	54	33.96	1120	35.49
Employed	551	53.65	771	51.88	262	54.13	90	56.60	1674	53.04
Retired	222	21.62	77	5.18	48	9.92	15	9.43	362	11.47
Homeownership ***										
Rent/Live with someone	412	40.12	923	62.11	313	64.67	83	52.20	1731	54.85
Homeowner	615	59.88	663	37.89	171	35.33	76	47.80	1425	45.15
Language of Interview ***										
English	1027	100	1307	87.95	461	95.25	129	81.13	2924	92.65
Spanish	-	-	179	12.05	23	4.75	30	18.87	232	7.35
Place of Birth ***										
United States (US)	1027	100	1153	77.59	360	74.38	84	52.83	2624	83.14
Outside of US states	-	-	333	22.41	124	25.62	75	47.17	532	16.86
Mean Age *(SD)*	43.59 *(0.41)*		35.27 *(0.35)*		40.19 *(0.61)*		41.87 *(1.25)*		39.79 *(0.25)*	

Note(s): Chi-squared tests of independence revealed significant group differences where indicated; **p < 0.01, ***p < 0.001.

Table 2
Differences in Self-Rated Health, Internal Political Efficacy, and External Political Efficacy for non-Latinx white, Mexican, Puerto Rican, Cuban Subgroups, and the Full Sample (Col %).

Key Indicators of Interest	Subgroups									
	non-Latinx white *(n = 1027)*		Mexican *(n = 1486)*		Puerto Ricans *(n = 484)*		Cuban *(n = 159)*		Full Sample *(n = 3156)*	
Self-Rated Health	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Poor	27	2.63	76	5.11	24	4.96	6	3.77	133	4.21
Fair	135	13.15	206	13.86	76	15.70	12	7.55	429	13.59
Good	317	30.87	505	33.98	167	34.50	46	28.93	1035	32.79
Very Good	372	36.22	459	30.89	140	28.93	61	38.36	1032	32.70
Excellent	176	17.14	240	16.15	77	15.91	34	21.38	527	16.70
Mean, and group difference	3.52		3.39**		3.35**		3.66		3.44	
Internal Political Efficacy										
Extremely Low	124	12.07	170	11.44	62	12.81	20	12.58	376	11.91
Low	320	31.16	489	32.91	147	30.37	48	30.19	1004	31.81
Neutral	274	26.68	434	29.21	163	33.68	38	23.90	909	28.80
High	210	20.45	255	17.16	74	15.29	30	18.87	569	18.03
Extremely High	99	9.64	138	9.29	38	7.85	23	14.47	298	9.44
Mean	2.84		2.80		2.75		2.92		2.81	
External Political Efficacy										
Extremely Low	179	17.43	272	18.30	97	20.04	28	17.61	576	18.25
Low	324	31.55	484	32.57	148	30.58	57	35.85	1013	32.10
Neutral	329	32.04	519	34.93	178	36.78	52	32.70	1078	34.16
High	166	16.16	165	11.10	45	9.30	16	10.06	392	12.42
Extremely High	29	2.82	46	3.10	16	3.31	6	3.77	97	3.07
Mean	2.55		2.48*		2.45*		2.47		2.50	
Spearman Correlation Coefficients										
SRH vs. Internal Efficacy	0.057 *		0.043		−0.099 *		0.131		0.036 *	
SRH vs. External Efficacy	0.023		0.015		−0.002		0.099		0.022	

Note(s): Tests of group difference are based on Mann-Whitney *U* test comparing each group to non-Latinx White (*p < 0.05, **p < 0.01).

Table 3
Adjusted Ordinal Logistic Regression Models for Internal Political Efficacy (IPE) and Self-Rated Health (SRH) for Full Sample and Stratified by non-Latinx white, Mexican, Puerto Rican, and Cuban Subgroups.

	Subgroups								Full Sample	
	non-Latinx white		Mexican		Puerto Rican ◆		Cuban ◆			
	OR	*SE*	OR	*SE*	OR	*SE*	OR	*SE*	OR	*SE*
Internal Political Efficacy (IPE)										
Extremely Low (Ref.)	-	-	-	-	-	-	-	-	-	-
Low	1.428+	(0.280)	1.021	(0.171)	0.665	(0.192)	2.909*	(1.490)	1.110	(0.125)
Neutral	1.423+	(0.285)	1.022	(0.173)	0.478**	(0.136)	1.005	(0.525)	1.001	(0.113)
High	1.759**	(0.375)	1.121	(0.209)	0.505*	(0.169)	1.799	(0.974)	1.187	(0.171)
Extremely High	1.532	(0.398)	1.178	(0.258)	0.350**	(0.139)	5.767**	(3.464)	1.166	(0.151)
Age (linear term)	0.985**	(0.005)	0.990*	(0.004)	0.982*	(0.008)	0.980	(0.014)	0.989***	(0.003)
Gender										
Male (Ref.)	-	-	-	-	-	-	-	-	-	-
Female	1.394**	(0.173)	0.969	(0.101)	0.648*	(0.125)	0.828	(0.300)	1.055	(0.075)
Education										
High School/GED or Less (Ref.)	-	-	-	-	-	-	-	-	-	-
Some College/2-year Degree	1.115	(0.177)	1.248+	(0.144)	1.248	(0.257)	0.924	(0.406)	1.134	(0.093)
4-year Degree or More	2.125***	(0.341)	1.444**	(0.186)	2.219***	(0.523)	0.945	(0.394)	1.753***	(0.154)
Employment										
Unemployed (Ref.)	-	-	-	-	-	-	-	-	-	-
Employed	1.228	(0.195)	1.681***	(0.180)	1.604*	(0.313)	1.309	(0.554)	1.531***	(0.120)
Retired	1.283	(0.291)	1.404	(0.360)	1.001	(0.350)	1.307	(0.970)	1.391*	(0.195)
Homeownership										
Rent/Live with someone else (Ref.)	-	-	-	-	-	-	-	-	-	-
Homeowner	2.062***	(0.287)	1.524***	(0.164)	1.231	(0.234)	1.823	(0.696)	1.645***	(0.124)
Language of Interview										
English (Ref.)	-	-	-	-	-	-	-	-	-	-
Spanish	-	-	1.170	(0.175)	1.468	(0.618)	1.158	(0.529)	1.017	(0.149)
Place of Birth										
United States (US) (Ref.)			-	-	-	-	-	-	-	-
Outside of US states			1.346*	(0.187)	1.356	(0.274)	1.837	(0.692)	1.317**	(0.134)
N	1027		1486		484		159		3156	
AIC	2795.9		4265.9		1395.1		448.9		8892.3	
BIC	2869.9		4356.1		1466.2		501.1		8995.3	
Log Likelihood	−1383		−2116		−680.6		−207.5		−4429	
df	11		13		13		13		13	
Pseudo R-2	0.0349		0.0180		0.0356		0.0510		0.0218	

Notes: OR=Odds Ratio; SE=Standard Error; + p < 0.10, *p < 0.05, **p < 0.01, ***p < 0.001; ◆ = Wald Test indicated internal political efficacy (IPE) was a significant predictor of self-rated health (SRH) in the model; Ref. = referent.

coefficient estimates of the association of IPE and EPE to SRH for each subgroup. IPE was significantly positively correlated with SRH within the full sample (r = 0.036, p = 0.026) and among non-Latinx whites (r = 0.057, p = 0.022). But IPE was negatively correlated with SRH among Puerto Ricans (r = −0.099, p = 0.03). EPE was not significantly correlated with SRH for any groups.

3.3. Results of ordered logistic regression models assessing internal political efficacy and external political efficacy as correlates of self-rated health

We use ordered logistic regression models to test the association of SRH to IPE and EPE in the presence of controls for age, gender, education, employment, homeownership, language of interview, and place of birth. We report results of regression models stratified by subgroups and for the full sample, starting with IPE (Table 3). Puerto Rican respondents reported significantly poorer SRH at increasing levels of IPE. Compared to the reference group having extremely low IPE, we observed significantly lower SRH for those with extremely high IPE (OR = 0.350, p < 0.01), high IPE (OR = 0.505, p = 0.041) and neutral IPE (OR = 0.478, p < 0.01). A Wald test of joint significance indicated that the five-category IPE measure was a jointly significant predictor of SRH for Puerto Rican respondents (p-value = 0.035). IPE was not a jointly significant predictor of SRH for non-Latinx white respondents, but high versus extremely low IPE was an individually significant predictor of SRH (OR = 1.759, p < 0.01). Among Mexican respondents, we observed a gradient of increasing SRH at each higher level of IPE, but coefficients were neither jointly nor individually significant. Among Cuban respondents, we observed significantly positive coefficients for low versus extremely low IPE (OR = 2.909, p = 0.037) and extremely high versus extremely low IPE (OR = 5.667, p < 0.01), along with positive but not statistically significant coefficients for neutral or high IPE.

Other covariates of SRH behaved similarly across subgroups, though estimates were less stable for Cuban respondents given the small sample size (n = 159). Increasing age was associated with lower SRH, though patterns were not significant for Cuban respondents. Female sex was associated with higher SRH among non-Latinx white respondents (OR = 1.394, p < 0.01), but with poorer SRH among Puerto Rican respondents (OR = 0.648, p = 0.024) and not significantly associated with SRH among Mexican or Cuban respondents. Compared to High School or less, completion of a four-year degree was significantly associated with higher SRH for non-Latinx white, Mexican and Puerto Rican respondents (but not for Cuban), while completion of some college or a two-year degree was not significantly associated with health. Being employed (ref = unemployed) was associated with better health for Mexican (OR = 1.681, p < 0.001) and Puerto Rican (OR = 1.604, p = 0.015) respondents. Homeownership was associated with better SRH among non-Latinx white (OR = 2.062, p < 0.001) and Mexican (OR = 1.524, p < 0.001) respondents. Language of interview was not associated with SRH for any subgroup. However, being born outside of the US states was significantly associated with better SRH among Mexican respondents (OR = 1.346, p = 0.032) (Table 3).

Table 4 reports multivariate regression results on the association of external political efficacy to SRH. We observed no significant statistical associations of individual EPE categories to SRH. Wald chi-square tests indicate that EPE measures were not jointly significant predictors of SRH for any subgroup or for the full sample.

Table 4
Adjusted Ordinal Logistic Regression Models for External Political Efficacy (EPE) and Self-Rated Health (SRH) for Full Sample and Stratified by non-Latinx white, Mexican, Puerto Rican, and Cuban Subgroups.

	Subgroups								Full Sample	
	non-Latinx white		Mexican		Puerto Rican		Cuban			
	OR	*SE*	OR	*SE*	OR	*SE*	OR	*SE*	OR	*SE*
External Political Efficacy (EPE)										
Extremely Low (Ref.)	-	-	-	-	-	-	-	-	-	-
Low	0.839	(0.146)	0.911	(0.129)	1.363	(0.329)	1.229	(0.559)	0.964	(0.094)
Neutral	0.780	(0.135)	0.940	(0.131)	0.967	(0.225)	1.903	(0.878)	0.927	(0.089)
High	0.993	(0.200)	1.191	(0.218)	1.191	(0.394)	1.626	(0.972)	1.190	(0.144)
Extremely High	1.595	(0.603)	0.737	(0.232)	1.319	(0.769)	1.124	(0.952)	1.103	(0.236)
Age (linear term)	0.986**	(0.005)	0.989*	(0.004)	0.983*	(0.007)	0.981	(0.014)	0.989***	(0.003)
Gender										
Male (Ref.)	-	-	-	-	-	-	-	-	-	-
Female	1.370*	(0.169)	0.964	(0.100)	0.697+	(0.132)	0.945	(0.341)	1.047	(0.074)
Education										
High School/GED or Less (Ref.)	-	-	-	-	-	-	-	-	-	-
Some College/2-year Degree	1.138	(0.181)	1.253+	(0.144)	1.124	(0.228)	0.997	(0.428)	1.141	(0.094)
4-year Degree or More	2.196***	(0.352)	1.470**	(0.188)	2.000**	(0.469)	1.411	(0.580)	1.764***	(0.155)
Employment										
Unemployed (Ref.)	-	-	-	-	-	-	-	-	-	-
Employed	1.256	(0.200)	1.659***	(0.177)	1.667**	(0.322)	1.344	(0.560)	1.518***	(0.119)
Retired	1.337	(0.304)	1.383	(0.354)	1.011	(0.349)	1.888	(1.305)	1.391*	(0.195)
Homeownership										
Rent/Live with someone else (Ref.)	-	-	-	-	-	-	-	-	-	-
Homeowner	2.016***	(0.280)	1.535***	(0.166)	1.211	(0.231)	1.541	(0.575)	1.656***	(0.125)
Language of Interview										
English (Ref.)	-	-	-	-	-	-	-	-	-	-
Spanish	-	-	0.966	(0.171)	1.340	(0.561)	1.175	(0.544)	1.011	(0.148)
Place of Birth										
United States (US) (Ref.)			-	-	-	-	-	-	-	-
Outside of US states			1.347*	(0.187)	1.467+	(0.297)	1.574	(0.598)	1.331**	(0.136)
N	1027		1486		484		159		3156	
AIC	2796.9		4263.3		1402.1		461.9		8890.8	
BIC	2870.9		4353.5		1473.2		514.1		8993.8	
Log Likelihood	−1383		−2115		−684.1		−214		−4428	
df	11		13		13		13		13	
Pseudo R-2	0.0346		0.0186		0.0307		0.0212		0.0220	

Notes: OR=Odds Ratio; SE=Standard Error; + p < 0.10, *p < 0.05, **p < 0.01, ***p < 0.001; Ref. = referent.

3.4. Predictive probabilities for models including race/ethnicity as an effect modifier

To illustrate the role of race/ethnicity in modifying the association between IPE and SRH, we report marginal predicted probabilities of SRH from pooled models, including main effects for race/ethnicity and IPE and interaction between the two. Fig. 2 visually depicts the predicted probability of poor SRH and excellent SRH at each of the five-levels of IPE by subgroup. Cubans are excluded due to the instability of estimates. The graphs illustrate the inverse nature of the relationship observed between IPE and SRH among Puerto Ricans. This trend was significantly different from what was observed among other Latinx and non-Latinx whites. For example, among Puerto Ricans, the predicted probability of excellent SRH was 23.2% (CI 14.7%–31.6%) for those with extremely low political efficacy, but just 10.4% (CI 4.9%–15.9%) among those with extremely high political efficacy. Looking across groups, we see that among those with extremely low political efficacy, Puerto Ricans had better health than Mexican or non-Latinx respondents, but among those with extremely high political efficacy, Puerto Ricans had poorer health. Since racial/ethnic subgroup did not significantly modify the relationship between EPE and SRH, predictive probabilities were not generated.

4. Discussion

4.1. Confirmed subgroup differences in internal political efficacy as a correlate of self-rated health

Among non-Latinx whites, there was a significant positive association between internal political efficacy (IPE) and self-rated health (SRH). Findings suggest that, as perceptions of positive IPE increase, perceptions of positive SRH also increase. These findings are consistent with previous studies that have examined the association between self-efficacy and health (Sheeran et al., 2016), such that having more confidence in one's ability to control life's outcomes has been found to produce better health outcomes. Similarly, these results align with previous investigations that found a positive association between community-level political efficacy and SRH (Poortinga, 2012). However, while a significant positive association was observed among non-Latinx whites, the inverse was observed among Puerto Ricans. Remarkably, results revealed that Puerto Ricans with extremely high IPE had worse SRH. This indicates that, while higher levels of IPE may be protective of health among non-Latinx whites, this is not that case among Puerto Ricans.

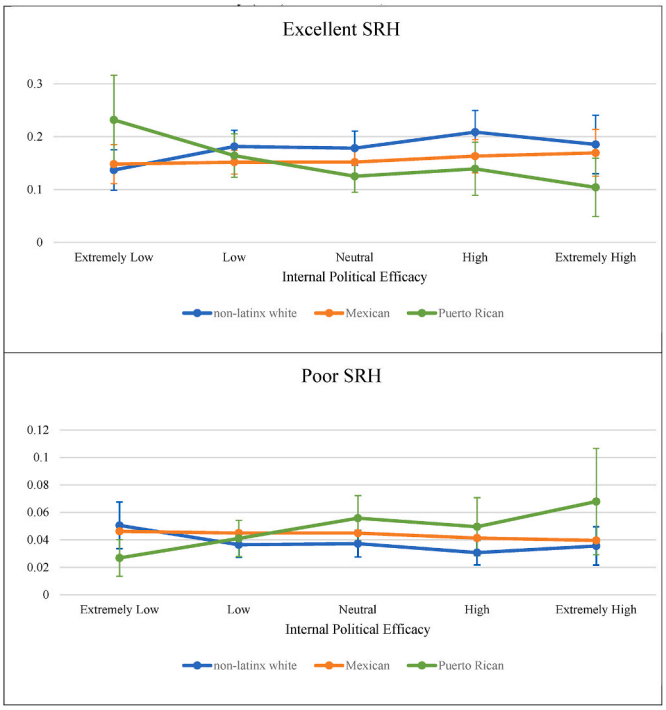

Fig. 2. Predictive Probabilities of Excellent and Poor Self-Rated Health (SRH) across all Five-Levels of Internal Political Efficacy (IPE) for Mexicans, Puerto Ricans and non-Latinx whites.

While these findings may appear paradoxical, the differences observed may point to the nuanced nature of the ways in which politically oppressed communities experience these constructs. For example, it may be that Puerto Ricans with high political efficacy have a heightened awareness of the discrimination that is perpetuated against their community and these perceptions of discrimination may be producing detrimental health outcomes. Indeed, empirical evidence exists demonstrating that perceived discrimination does negatively influence health among Puerto Ricans (Cuevas et al., 2019). However, as this was outside the scope of the current investigation, future studies should aim to assess the effects of awareness of discrimination on the relationship between political efficacy and health among Puerto Ricans.

Additionally, it is important to note that significant differences in the association between IPE and SRH were observed among Cubans. As the third largest Latinx subgroup in the US (Noe-Bustamante et al., 2017)), differential patterns in health outcomes and the potential effects of political exposures were of particular import to the research team. However, due to the small sample size and instability of estimates the results of the Cuban subgroup were not interpreted. Nevertheless, as a group that has historically been composed of refugees to the US, Cubans experience a unique political context and have had differential access to federal resources when compared to Mexican and Puerto Rican subgroups, such as refugee resettlement programs within the US (Tran & Lara-García, 2020). Therefore, future investigations should also aim to assess the implications of political efficacy on health among Cubans.

4.1.1. Disparities in self-rated health for Latinx subgroups

While the focus of this study was the relationship between political efficacy and SRH, meaningful differences in SRH were also assessed and observed across Latinx subgroups as compared to non-Latinx whites. Notably, Puerto Ricans represented the group with the worst levels of SRH when compared to other Latinx subgroups and non-Latinx whites. In fact, within this study, over 1 in 5 Puerto Ricans reported poor or fair health. These results are consistent with previous investigations assessing SRH among Puerto Ricans living in the states as compared to other Latinx groups and non-Latinx whites (Benjamins et al., 2012; Borrell & Dallo, 2008).

Interestingly, individuals who identified as Mexican followed Puerto Ricans as the group with the second lowest levels of SRH when compared to non-Latinx whites. Although this is a group that is typically expected to have better health outcomes when compared to non-Latinx whites (Ruiz et al., 2016), previous studies have found that health advantages among Mexican immigrants disappear in subsequent US-born generations of individuals who identify as Mexican (Boen & Hummer, 2019; Giuntella, 2016). Consistent with previous literature, our findings revealed that individuals who identify as Mexican and were born outside of the US were more likely to report better levels of SRH when compared to individuals who were born in the US states. Additionally, the high level of English speakers in this sample does indicate that individuals in the Mexican subgroup were more likely to reside in the US for an extended period, possibly making them more likely to have worse SRH (Velasco-Mondragon et al., 2016). Despite these notable differences by place of birth, the detected levels of poor SRH among Puerto Ricans and Mexicans, overall, are especially concerning as there is evidence to suggest that measures of SRH may underestimate the gap in health outcomes among individuals belonging to socially disadvantaged groups (Delpierre et al., 2009).

4.2. Strengths, limitations, and future directions

To our knowledge, this study represents one of the first attempts to understand the association between political efficacy and SRH among three of the largest Latinx subgroups living in the US (Mexican, Puerto Rican, and Cuban) as compared to non-Latinx whites. Notably, the utilization of a transdisciplinary data source (i.e., CMPS) and interdisciplinary theoretical constructs (e.g., self-efficacy and political efficacy) allowed us to present early evidence highlighting potential pathways by which the PDoH operate among underrepresented and historically disenfranchised groups. In this way, this study stands as an example of the types of questions that can be addressed when health disparities research cuts across disciplinary boundaries. Additionally, this investigation contributes to emerging Latinx health disparities scholarship by applying a disaggregated analytic approach. Much of the existing evidence on Latinx health disparities generalizes findings based on analyses conducted with an aggregate group of individuals who are categorized as Latinx (Zambrana et al., 2021), which serves to obscure the true disparities that exist within the extraordinarily heterogeneous Latinx community in the US (Wortham & Rhodes, 2015). This study works against this practice and contributes to the body of evidence demonstrating the presence of significant health disparities across Latinx subgroups.

While this study has many strengths, there are also several limitations. Notably, the data utilized in this study (CMPS) were collected as part of a cross-sectional survey. Therefore, the temporal relationship between political efficacy and SRH cannot be established. Despite this limitation, secondary analysis is a cost-effective way to establish preliminary findings that inform future research. Additionally, we note the presence of relatively large sample sizes for Mexican and Puerto Rican respondents, but much smaller sample sizes for Cubans. As a result, estimates for the Cuban subgroup were unstable and efforts should be made to replicate these analyses with a larger group of Cuban respondents. Moreover, there are some limitations to report at the intersection of race and ethnicity. Unfortunately, we were unable to determine race for Latinx subgroups as the 2016 CMPS did not collect separate race and ethnicity variables. Therefore, we could not assess whether there were racial differences in the association between political efficacy and SRH within Latinx ethnic categories. Future studies should aim to assess the impact of race within Latinx subgroups, particularly as emerging research demonstrates within group disparities for those who identify as Afro-Latinx (or Black Latinx) (Cuevas et al., 2016).

There are a few more limitations and suggestions for future directions worth noting. First, this study was restricted to the use of SRH because it was the only health measure available for all Latinx subgroups of interest. Future efforts could benefit from the addition of a more robust collection of health indicators, such as psychological distress as well as measures of chronic disease (Delpierre et al., 2009). Second, while some proxies for acculturation were incorporated within this study, specifically language of interview and place of birth, this cultural determinant of health was not directly assessed. Considering that there is a long line of Latinx health literature demonstrating a connection between cultural factors and health, future investigators might consider incorporating standard measures of acculturation (Velasco-Mondragon et al., 2016; Wallace et al., 2010). Lastly, to garner a more nuanced view of political efficacy and SRH among Latinx subgroups, future studies should also strive to consider pre- and post-migration-related factors, such as measures of experiences with social, political, and economic adversity in one's country of origin and in the US, which have also been found to shape health among Latinx migrants (Torres & Wallace, 2013; Viruell-Fuentes et al., 2012). In the US, this is particularly relevant as there has been a rise in exclusionary policies since the events of the 2016 presidential election, including increases in anti-immigration and voter suppression policies (Darrah-Okike et al., 2021; Morey et al., 2021). Given the context of the 2016 political climate, the present study provides a baseline assessment of the association between political efficacy and health that could be utilized by future investigations to determine how the events since, including the global pandemic and the 2020 presidential election, might have affected political correlates of health.

4.3. Conclusion

Despite decades of research, racial and ethnic disparities in health outcomes persist(National Center for Health Statistics, 2016), including empirically observed differences in SRH among and within the Latinx community (Benjamins et al., 2012). Increasingly, public health researchers are looking to political determinants to explain and address racial and ethnic health disparities (Mishori, 2019). However, investigations examining the associations between political factors and health outcomes are rare (Dawes, 2020). This study stands as a contribution to the literature surrounding political determinants as it provides early evidence that political efficacy, specifically internal political efficacy, is a correlate of SRH among Latinx subgroups. Additionally, by examining the relationship between political efficacy and SRH among Mexican, Puerto Rican and Cuban subgroups, as compared to non-Latinx whites, this study illuminates meaningful differences that warrant future exploration within the Latinx health inequities space.

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Ethical statement

This study used de-identified survey data for the purposes of conducting secondary quantitative analyses and it is not considered human subjects research by the Institutional Review Board.

The work in this article has not been published previously and it is not under consideration for publication elsewhere. This publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out. If accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder.

Declaration of competing interests

None.

Data availability

The authors do not have permission to share data.

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