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Immigration Enforcement Fear and Anxiety in Latinx High School Students: The Indirect Effect of Perceived Discrimination

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A B S T R A C T

Purpose: Immigration enforcement policies and negative rhetoric about immigrants harm the psychological well-being of Latinx youth in immigrant families, particularly those who are most vulnerable because of their own or their loved ones' legal status. According to the Integrative Model for the Study of Developmental Competencies among Minority Children, discrimination may be one pathway to explain how vulnerability to restrictive immigration policies affects Latinx youth mental health.
Methods: We collected data from 306 Latinx high school students from immigrant families in Harris County, Texas, and Rhode Island to (1) determine the direct effect of immigration enforcement fear (a proxy for the social position of vulnerable legal status) on adolescents' anxiety; (2) explore the effect of immigration enforcement fear on anxiety through the pathway of perceived discrimination; and (3) test whether the different enforcement climates in the two study sites moderate these pathways. Total anxiety and subscales measuring separation, social, school, generalized, and somatic anxiety subtypes were analyzed.
Results: Immigration enforcement fear was related to increased somatic and separation anxiety in both first- and second-generation Latinx adolescents. Perceived discrimination partially mediated the association between immigration enforcement fear and separation and somatic anxiety; data collection site did not moderate these effects.
Conclusions: Immigration policies and rhetoric have psychological consequences. Although the adolescents in our study face multiple stressors, immigration enforcement fear may heighten their perception of discrimination, in turn, likely elevating their physiological and family separation anxiety.

IMPLICATIONS AND CONTRIBUTION

Latinx adolescents live in a nationalized climate of fear provoked by heightened immigration enforcement. This study examined the association between immigration enforcement fear and anxiety by exploring the role of perceived discrimination in explaining this relation. Findings document this association while accounting for other stressors that increase the risk of anxiety.

The U.S. Immigration and Customs Enforcement (ICE) arrests of noncitizens were approximately 40% higher in 2018 and 2019 than during that last year of the Obama administration [1]. Although the criminalization of immigration in the U.S.

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precedes the Trump administration (e.g., agreements with local police to enforce immigration laws), the Trump administration has intensified criminalization by broadening ICE arrest priorities, narrowing prosecutorial discretion, restarting worksite arrests, and expanding cooperative agreements with local law enforcement agencies [2,3]. In related immigration policies, the administration deployed the military and National Guard to the U.S.–Mexico border, expanded construction of border barriers, separated asylum-seeking families, and returned people to Mexico during removal proceedings [4,5]. These policies have co-occurred with the use of unprecedented language to vilify and dehumanize Latinx immigrants, characterizing them as "rapists," "thugs," and "animals" who "bring drugs," "invade," and "attack" the U.S. [6].

Within this sociopolitical context, immigration policies are racialized (i.e., "unauthorized" is conflated with "Latinx"), and immigrants are often systematically excluded [4], leading to increased experiences of social stratification and discrimination [7]. Research documents how immigration enforcement harms emotional well-being, for example, by producing anxiety among Latinx adolescents in immigrant families [8,9] (The term Latinx is now a common label for the Latino community, as it reflects a gender-neutral alternative to 'Latino'.). In addition to directly generating anxiety, vulnerable legal status may indirectly elevate anxiety by increasing exposure to discriminatory treatment in youths' daily lives [10]. Guided by Garcia Coll et al.'s [11] Integrative Model for the Study of Developmental Competencies among Minority Children (hereafter called the Integrative Model), we analyzed data collected from 306 first- and second-generation Latinx high school students. We explored (1) the direct effects of immigration enforcement fear (a proxy for the social position of one's own and/or loved ones' vulnerable legal status) on total anxiety and separation anxiety, as well as on social, school, generalized, and somatic anxiety; (2) the indirect effects of immigration enforcement fear on anxiety through the pathway of perceived discrimination; and (3) potential moderation of these pathways by the different enforcement climates in Harris County, Texas, and Rhode Island.

Contexts influencing immigrant youth development

Garcia Coll et al. [11] extended ecological developmental models of child development to illustrate how vulnerable social positions (e.g., race)—the result of social stratification—negatively affect the development of children from underrepresented groups. They posit that the association between social position and developmental outcomes is mediated by macrosystem factors, such as pervasive racism and discrimination. For Latinx adolescents in immigrant families, vulnerability to immigration enforcement because of their own or their loved ones' legal status is conceptualized along a continuum of threat, with citizenship status on one end and undocumented status on the other end [12]. Researchers have highlighted that even the perceived threat of enforcement negatively affects child development outcomes [8,13].

Extending the Integrative Model [11], the social position of vulnerable legal status (one's own and their loved ones') affects a child's development indirectly through increased exposure to restrictive policies, racist rhetoric, and discrimination [13]. As adolescents develop cognitive maturity, they can understand the political environment in which they reside [14]. Children in immigrant families comprehend the importance of "papers" (e.g., a permanent resident card, social security card, and valid driver's license) and the hierarchy of legal status [12]. Many adolescents also still rely on caregivers to meet their concrete and emotional needs. For these reasons, they absorb the legal vulnerability of their family even when they are U.S. citizens [4,8]. As youth become aware of the implications of legal status (including the denial of the rights and protections that society offers), they are at risk for increased internalizing symptoms, including anxiety, somatization, and social withdrawal [4,8]. Individual and contextual risk factors, such as age, gender, nativity, trauma exposure, and poverty, differentially impact that risk [15–17]. We sought to extend previous research to better understand *how* legal vulnerability (i.e., a social position) translates to developmental outcomes in youth.

Immigration enforcement, perceived discrimination, and anxiety

Youth who grow up in a mixed-status family often bear anticipatory anxiety of their own or a loved one's possible deportation [18]. As a result, they may experience separation anxiety in the context of threatened deportation, somatic anxiety related to prolonged activation of the stress response system, social anxiety related to fear of being "outed" or stigmatized, school refusal due to fear of enforcement or rejection, and generalized anxiety about worst-case scenarios. In addition, the criminalization of immigration has facilitated discriminatory treatment toward immigrants who "deserve being detained and/or deported" because they "broke the law" [19]. In a national survey, 4 in 10 Latinos experienced discrimination, which is associated with an increase in anxiety symptoms, particularly in Latinx youth [20,21].

According to the Integrative Model, an adolescent's legal vulnerability—which encompasses their own and loved ones' place along the continuum of legal status—may elevate their anxiety directly, but also indirectly by increasing experiences of, and sensitivity to, discrimination [11]. To our knowledge, only one quantitative study by Almeida et al. [10] reported an association between immigration enforcement policies and poor health through the indirect effects of discrimination. In that study, immigration enforcement created an adverse social environment in which Latinx adults experienced more discrimination, with discrimination harming their physical health. Similarly, one qualitative study documented unauthorized Latinx mothers' perspectives of increased discrimination following the 2016 elections and how this negatively influenced their children's health [22].

Guided by Garcia Coll's Integrative Model (1996), we examined perceived discrimination as *one* mechanism for understanding the relation between immigration enforcement fear (a proxy for the social position of vulnerable legal status) and anxiety in Latinx youth. We expected that higher immigration enforcement fear would be associated with greater anxiety, and perceived discrimination would partially mediate this statistical association. Given the higher enforcement climate in Harris County, Texas, we expected that these youth would fare worse than youth in Rhode Island.

Methods

Procedures

Surveys were administered during the 2018–2019 school year to 306 first- and second-generation Latinx students in 11 high

schools in Harris County, Texas, and Rhode Island. High schools were selected based on (1) high concentration of Latinx students; and (2) established relationships with the principal investigators. In both locations, immigrants comprise more than one fourth of the total population. Harris County is governed by a Texas law requiring local law enforcement to cooperate with ICE. In contrast, Rhode Island has an executive order prohibiting cooperation with ICE.

Participants were first- or second-generation immigrants from Spanish-speaking countries, excluding Puerto Rico and Spain. We obtained parental consent for all students aged <18 years. Because of tight school schedules, individual interviews were not feasible. Researchers read the questions aloud in Spanish or English to groups of up to six students in a private area at the school. Surveys were read aloud to assist students who may have limited literacy. Students responded individually on iPads. Data collection took, on average, 60 minutes. All protocols were approved by participating school districts and university institutional review boards.

Sample

Approximately half of the surveys (n = 152) were conducted in Harris County. Fifty-eight percent of the sample identified as female students, and about one fourth were aged ≥17 years. More than half of the sample were first generation (53%). Among parents, 80% were born in Mexico, El Salvador, Honduras, or Guatemala (Respondents were not asked about their family members' immigration status in order to encourage them to respond to questions truthfully and protect their privacy.) [22].

Measures

Clinical anxiety. The dependent variable, anxiety, was assessed using the Screen for Children Anxiety and Related Disorders (SCARED; α = .93) (Cronbach alpha coefficients reported in the measures section were computed with the current sample.) [23]. The SCARED consists of 41 questions that form five subscales aligned with DSM five criteria: generalized, separation, school, social, and somatic anxiety [23]. Responses range from 0 (almost never) to 2 (almost always). Sums of the total anxiety scale and each subscale were used in the regression models. The SCARED has been tested for validity in several studies with Latinx adolescents [24].

Immigration enforcement fear. The primary independent variable was assessed using eight single-item questions that explored youths' emotional and behavioral responses to perceived threat of immigration enforcement targeted at them and their families (α = .81). Students were asked their level of worry about whether (1) they would be detained and/or deported; and (2) a family member or friend would be detained and/or deported. These two items were developed based on previous field research [25]. Six additional items, developed by the project team, asked about behavior changes related to fear of detention and/or deportation: (3) avoiding school activities; (4) avoiding religious services; (5) avoiding going out; (6) taking public transportation rather than driving; (7) avoiding a healthcare clinic if injured or sick; and (8) taking a different route to school. Responses ranged from strongly agree to strongly disagree. Items were translated into Spanish and back translated by bilingual research assistants. For ethical reasons, rather than directly question youth about their own or their loved ones' legal status, these questions were a proxy for vulnerable legal status. Participants scoring higher, indicating greater fear, are assumed to experience a social position of greater legal vulnerability.

Know a family member or friend who was deported. This construct was derived from two single-item questions: "Do you personally know someone who was deported?" and, for positive responders, "What was your relationship to the deported person?"

Perceived discrimination. The Adolescent Discrimination Distress Index (α = .83) includes 15 four-point Likert scale questions that assess educational, institutional, and peer discrimination. It has been used in other studies with Latinx adolescents [26,27].

Trauma exposure. Twenty yes/no items (α = .82) assessed lifetime exposure to traumatic events (e.g., being a victim of violence). These items are from the Life Events Checklist and have been used in similar school-based settings with Latinx adolescents [28].

Economic hardship. Eight single-item questions addressed difficulties affording food, rent, utilities, clothing, transportation, and other necessities (α = .86). Responses ranged from 0 (never) to 3 (almost always). Items were taken from an evaluation of a substance use program for Latinx youth [29].

Demographic characteristics. Youth were asked their age, gender (male, female, or nonbinary), and whether they were born in the U.S.

Statistical analysis

A confirmatory factor analysis was conducted to explore whether the eight-variable construct of "immigration enforcement fear" was consistent with a single factor structure. Model fit indices, such as a chi-square test, the root mean square error of approximation (RMSEA), the Tucker Lewis Index (TLI), and the Comparative Fit Index (CFI), were used to assess the goodness of model fit. RMSEA less than .05 indicates close approximate fit (i.e., good fit); values between .05 and .08 indicate reasonable error of approximation (i.e., acceptable fit). For the CFI/TLI, values greater than .90 indicates a good model fit [30].

The response rates for constructs ranged from 73% (immigration enforcement fear) to 89% (SCARED). To impute missing data, researchers created 20 datasets using multiple imputations developed through the Markov Chain Monte Carlo method and discriminant function method in SAS [31] (Variables used to create the imputed dataset were selected because of their likely correlation to the other variables in the model. Variables used to create the imputed datasets included: Age, gender, nationality, discrimination, posttraumatic stress symptoms [as measured by the Child Posttraumatic Stress Symptom Scale], anxiety, externalizing behaviors, depression symptoms [as measured by the Center for Epidemiologic Studies Depression Scale], mental health access, immigration enforcement fear, and economic hardship. A supplemental table is included to show differences between imputed and non-imputed data on key variables.). Data were sampled with 100 iterations between successive

imputations after the first 200 iterations. All statistical analyses were run independently on each imputed dataset in the prespecified models. The results from the analyses of the 20 datasets were pooled into a single set of estimates and adjusted standard errors [32].

The descriptive statistics of sample characteristics and study variables were assessed, and the comparisons between data collection site were examined using *t* test or chi-square test for continuous and categorical variables, respectively.

Using the imputed data, linear regression models tested direct association between immigration enforcement fear and anxiety. Models included predictions for total anxiety and for each of the five subscales while controlling for demographic variables, discrimination, economic hardship, and trauma exposure. Next, mediation analyses were conducted using the CAUSALMED procedure in SAS to test the indirect effects of discrimination, adjusting for age, gender, nativity, trauma exposure, economic hardship, and the experience of having a family member or friend deported [31] (Figure 1). Finally, moderated mediation models were conducted to test differences by data collection site.

Results

A comparison of the imputed and nonimputed data revealed a slightly lower mean in immigration enforcement fear and slightly higher mean in anxiety when compared with participant responses from the nonimputed data (Supplemental Table 1).

Confirmatory factor analysis—immigration enforcement fear

Once errors for two variables ("How often are you worried you may be deported?" and "How often are you worried that a family member or friend will be detained/deported?") were allowed to correlate, the eight immigration enforcement items had acceptable reliability, $\alpha = .81$. The items were loaded on a unidimensional measurement model with loadings ranging from 1.00 to 2.06. Although the chi-square of model fit was significant ($\chi^2 = 43.34$ [df = 19]; $p = .001$), relying solely on chi-square as an indicator of fit is problematic given its sensitivity to sample size and highly correlated items and the unrealistic expectation of a perfect population fit. Thus, we applied additional fit indices. The RMSEA was .076, indicating a "reasonable error of approximation"; the CFI was .98, and the TLI was .97; both indicated that the model fit well with the data [30] (Table 1).

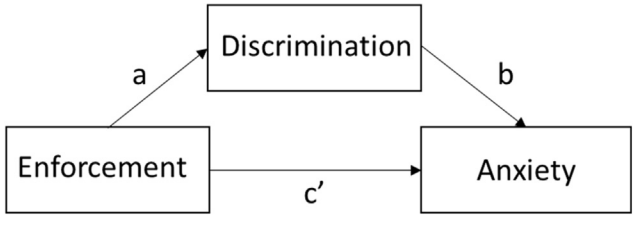

Figure 1. Path model illustrating the proposed mediation model. Note: "a" is the effect of immigration enforcement fear on discrimination; "b" is the effect of discrimination on anxiety; and "c" is the direct effect on immigration enforcement fear on anxiety.

Demographic differences by data collection site in key variables

Using the nonimputed data, nearly 64% of the sample likely met the clinical cutoff for an anxiety disorder. Among subscales, 44.7% exceeded cutoff for generalized anxiety, 32.3% for somatic anxiety, 53.2% for separation anxiety, 32.1% for social anxiety, and 19.3% for school-related anxiety. There were no significant differences in anxiety symptoms by national origin or site; however, being younger and female was associated with greater anxiety. In addition, total anxiety, somatic, separation, and generalized anxiety were positively correlated with immigration enforcement fear. Nearly half (41%) of youth knew a family member or close friend who had been deported. Nativity and age were positively correlated with immigration enforcement, indicting greater fear among foreign-born and older participants in the sample. Likewise, immigration enforcement fear was positively correlated with perceived discrimination and trauma exposure. There were no significant differences in perceived discrimination between participants in Harris County versus those in Rhode Island or between U.S.-born and foreign-born youth (Table 2).

Immigration enforcement fear, anxiety, and perceived discrimination

Multivariate analyses were conducted with the imputed data to account for missing values. Controlling for the effects of trauma exposure, economic hardship, demographics, and knowing a family member or friend that was deported, immigration enforcement fear was not significantly associated with the total anxiety score (B = .10; $p = .09$), but it was significantly associated with somatic anxiety (B = .17; $p = .003$) and separation anxiety (B = .13; $p = .03$).

Direct associations with anxiety were significant for discrimination and gender. Increased discrimination was associated with greater total anxiety and on each anxiety subscale, whereas female participants reported greater total anxiety and greater symptoms on all the anxiety subscales.

Next, perceived discrimination was tested as a mediator. The path between immigration enforcement fear and discrimination was significant in all six models (total anxiety and all five subscales), as was the path between discrimination and anxiety (Table 3). However, there was evidence of partial mediation in only two models: somatic and separation anxiety (Figures 2 and 3).

Moderated-mediated analyses: testing differences by data collection site

Moderated-mediated analyses were conducted for the two significant mediation models. No differences between Harris County, Texas, and Rhode Island were found for somatic (B = .1438 [standard error = .1084]; $p = .1847$) or separation anxiety (B = .1038 [standard error = .1039]; $p = .3178$) anxiety.

Discussion

Based on the clinical cutoff criteria indicated in the SCARED (i.e., a score of $\geq$25), 64% of Latinx adolescents in the sample may suffer from an anxiety disorder, approximately nine times higher than the prevalence in the general adolescent population [28,33]. Factors such as immigration enforcement fear, discrimination,

Table 1
Descriptive information about the sample and key variables using the nonimputed data

Variables	Total, mean (SD) or n (%)	Harris county, mean (SD) or n (%)	Rhode Island, mean (SD) or n (%)	Chi-square/*t* test
Age	16.61 (1.77)	16.64 (2.04)	16.58 (1.48)	.328 (276.05)
Female participants	177 (58.0%)	58 (37%)	94 (61%)	3.17 (4)
Born in the U.S.	147 (46.6%)	75 (49.3%)	67 (43.8%)	.944 (.33)
Know a family member or friend who was deported	127 (41.5%)	73 (48%)	54 (35.1%)	5.29 (1)*
Immigration enforcement fear				
1. How often are you worried that a family member or friend will be deported?	1.85 (1.10)	2.01 (1.00)	1.71 (1.18)	2.28 (279.05)*
2. How often are you worried that you will be detained or deported?	1.11 (1.21)	1.18 (1.20)	1.03 (1.23)	1.06 (289)
3. How often does fear of deportation make you avoid attending religious services or community events?	.48 (.76)	.50 (.79)	.45 (.76)	.58 (285)
4. How often does fear of deportation make you avoid activities outside of school hours?	.37 (.69)	.43 (.74)	.32 (.64)	1.37 (273.39)
5. How often does fear of deportation make you avoid going to the doctor, health clinic or hospital?	.49 (.85)	.63 (.95)	.35 (.70)	2.77 (254.62)**
6. How often does fear of deportation make you avoid public transportation, drive, or share riding?	.55 (.82)	.54 (.72)	.58 (.92)	−.308 (251.02)
7. How often does fear of deportation make you stay at home instead of going out?	.59 (.83)	.66 (.88)	.52 (.77)	1.38 (268)
8. How often does fear of deportation make you take a different route to school	.32 (.67)	.39 (.70)	.25 (.62)	1.68 (261.02)
Total 8-item immigration enforcement fear scale (potential range 0–24)	5.62 (4.64)	6.11 (4.49)	5.14 (4.74)	1.57 (221)
Additional stressors				
Economic stress (potential range 0–24)	16.79 (5.07)	16.37 (5.16)	17.20 (4.97)	−1.35 (271)
Trauma exposure (potential range 0–20)	7.48 (4.02)	8.21 (4.48)	6.79 (3.39)	2.72 (210.40)**
Perceived discrimination (potential range 0–24)	6.51 (5.39)	6.81 (5.72)	6.20 (5.03)	.919 (.359)
Anxiety symptoms				
Somatic anxiety subscale (potential range 0–26)	6.99 (5.48)	7.32 (5.59)	6.67 (5.37)	1.09 (279.43)
School anxiety (potential range 0–8)	2.33 (1.66)	2.34 (1.70)	2.32 (1.59)	.052 (293)
Social anxiety (potential range 0–14)	7.03 (3.68)	6.81 (3.55)	7.24 (3.80)	−1.84 (292.63)
Separation anxiety (potential range 0–16)	5.93 (3.19)	5.98 (3.03)	5.88 (3.33)	.729 (286)
Generalized anxiety (potential range 0–18)	8.79 (4.55)	8.36 (4.51)	9.20 (4.55)	−1.57 (287.86)
Total anxiety scale (potential range 0–48)	31.12 (14.74)	30.93 (14.24)	31.29 (15.23)	−.028 (269)

SD = standard deviation.
***<.001; **<.01, *<.05.

trauma exposure, gender, and age contribute to these relatively high levels of anxiety among our sample.

Immigration enforcement fear, used here as a proxy for the social position of vulnerable legal status (encompassing one's own and loved ones' immigration statuses), was a salient predictor of separation and somatic anxiety symptoms, even after accounting for the variance explained by perceived discrimination, trauma exposure, economic hardship, and demographic characteristics of Latinx adolescents. An emphasis on emotional restraint, linked to cultural expectations of collectivism, can lead to culturally normative somatic expressions of distress [34]. Cultural expectations of self-regulation may hinder youths' ability to understand and process their emotions, which can contribute to depression and anxiety [34]. Physical symptoms also carry less stigma compared with symptoms that are more traditionally associated with mental health problems (e.g.,

Table 2
A correlational matrix of key variables

	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age	−.339**	−.042	−.010	.160*	−.059	−.010	.031	−.143*	−.100	−.062	−.185**	−.123*	−.152*
2. Born in the U.S.	1	.085	.198**	−.294**	.106	.159*	−.003	.046	.129*	.097	.006	.066	.048
3. Female (other)		1	−.009	.082	−.075	−.139*	−.003	.298**	.155**	.259**	.385**	.272**	.348**
4. Know a family/friend who was deported			1	−.004	−.031	.187**	.019	.078	.007	.063	.104	.140*	.120*
5. Enforcement fear				1	−.271**	.086	.317**	.224**	.089	.179**	.284**	.205**	.263**
6. Economic hardship					1	−.063	−.165**	−.167**	−.085	−.046	−.101	−.124*	−.139*
7. Trauma exposure						1	.433**	.197**	.212**	.119	.113	.172**	.218**
8. Perceived discrimination							1	.306**	.350**	.257**	.309**	.334**	.380**
9. Somatic anxiety								1	.457**	.511**	.624**	.644**	.871**
10. School anxiety									1	.412**	.453**	.436**	.610**
11. Social anxiety										1	.450**	.632**	.769**
12. Separation anxiety											1	.535**	.767**
13. Generalized anxiety												1	.853**
14. Total anxiety scale													1

***<.001; **<.01, *<.05.

Table 3
Regression estimates for paths a and b of the indirect effect of discrimination on enforcement and anxiety

	Path *a*			Path *b*		
	B	SE	*p* value	B	SE	*p* value
Total anxiety						
Perceived discrimination				.330	.056	.000
Enforcement fear	.264	.062	.000	.095	.055	.085
Age	.029	.055	.596	−.144	.050	.004
Female (reference male)	.029	.109	.794	.697	.100	.000
Nonbinary (reference male)	.345	.464	.458	.378	.415	.363
Know friend/family member deported	.058	.115	.613	.173	.105	.099
Economic hardship	−.043	.054	.421	−.059	.049	.233
Trauma exposure	.330	.057	.000	.054	.055	.329
Nativity (reference U.S. born)	−.143	.121	.236	−.002	.111	.984
Somatic anxiety						
Perceived discrimination				.271	.058	.000
Enforcement fear	.264	.062	.000	.127	.058	.027
Age	.029	.055	.596	−.132	.053	.012
Female (reference male)	.029	.109	.794	.573	.104	.000
Nonbinary (reference male)	.345	.464	.458	.475	.431	.271
Know friend/family member deported	.058	.115	.613	.054	.110	.623
Economic hardship	−.043	.054	.421	−.091	.052	.077
Trauma exposure	.330	.057	.000	.093	.058	.110
Nativity (reference U.S. born)	−.143	.121	.236	−.020	.116	.861
School anxiety						
Perceived discrimination				.387	.058	.000
Enforcement fear	.264	.062	.000	−.045	.060	.461
Age	.029	.055	.596	−.061	.054	.254
Female (reference male)	.029	.109	.794	.359	.106	.001
Nonbinary (reference male)	.345	.464	.458	.369	.443	.406
Know friend/family member deported	.058	.115	.613	.016	.112	.885
Economic hardship	−.043	.054	.421	−.059	.053	.266
Trauma exposure	.330	.057	.000	.104	.059	.079
Nativity (reference U.S. born)	−.143	.121	.236	−.110	.119	.355
Social anxiety						
Perceived discrimination				.258	.062	.000
Enforcement fear	.264	.062	.000	.082	.061	.180
Age	.029	.055	.596	−.058	.056	.299
Female (reference male)	.029	.109	.794	.474	.111	.000
Nonbinary (reference male)	.345	.464	.458	−.013	.449	.976
Know friend/family member deported	.058	.115	.613	.105	.117	.369
Economic hardship	−.043	.054	.421	−.005	.055	.924
Trauma exposure	.330	.057	.000	−.046	.061	.458
Nativity (reference U.S. born)	−.143	.121	.236	−.156	.124	.206
Separation anxiety						
Perceived discrimination				.237	.059	.000
Enforcement fear	.264	.062	.000	.167	.056	.003
Age	.029	.055	.596	−.191	.052	.000
Female (reference male)	.029	.109	.794	.756	.102	.000
Nonbinary (reference male)	.345	.464	.458	.352	.424	.407
Know friend/family member deported	.058	.115	.613	.172	.107	.110
Economic hardship	−.043	.054	.421	.014	.050	.779
Trauma exposure	.330	.057	.000	.034	.057	.551
Nativity (reference U.S. born)	−.143	.121	.236	.130	.114	.254
Generalized anxiety						
Perceived discrimination				.243	.061	.000
Enforcement fear	.264	.062	.000	−.010	.060	.869
Age	.029	.055	.596	−.113	.055	.039
Female (reference male)	.029	.109	.794	.559	.109	.000
Nonbinary (reference male)	.345	.464	.458	.299	.476	.530
Know friend/family member deported	.058	.115	.613	.296	.114	.010
Economic hardship	−.043	.054	.421	−.068	.054	.205
Trauma exposure	.330	.057	.000	.041	.060	.499
Nativity (reference U.S. born)	−.143	.121	.236	.092	.121	.445

SE = standard error.
***<.001; **<.01, *<.05.

externalizing behaviors) [34]. Parental expectations that children do not "draw attention," to maintain family safety, may result in outwardly compliant behavior but internal anxiety [8,18,19]. Moreover, given that immigration enforcement can lead to prolonged separation, it is unsurprising that those with greater immigration enforcement fear report more family separation anxiety. In other research, undocumented parents have described separation anxiety in their children, for example,

Figure 2. Mediational analysis: anxiety somatic.

intense fear when the parents leave the home, run late at work, or travel outside the community [35].

Social stratification results in varying degrees of legal vulnerability for immigrant youth, defining their social position. In line with Garcia Coll et al.'s Integrative Model [11], perceived discrimination partially explained the relation between the youths' social position and separation and somatic anxiety. To our knowledge, only Almeida et al. [10] have tested perceived discrimination as a mechanism for understanding the effect of anti-immigrant policies on health. They found similar results: that anti-immigrant policies created an adverse social environment for Latinx participants, increasing discrimination, which, in turn, negatively affected their health outcomes. This finding is important because interventions to decrease experiences of discrimination may mitigate the impact of adverse policies on Latinx youths' mental health. Future research should explore perceived discrimination as a mechanism of change in intervention research.

We expected to find higher immigration enforcement fear among first-generation Latinx adolescents compared with the U.S. born. The prevalence of fear among U.S.-born participants likely reflects their anxiety about family members' vulnerability to immigration enforcement. This is consistent with other research that confirms that family members' legal vulnerability affects U.S. citizen children and that knowing someone who has been deported significantly raises the odds of having a mental health problem [36]. Also, because Harris County, Texas, deports more people than any other county in the U.S., we expected to find higher immigration enforcement fear and perceived discrimination there, compared with Rhode Island, which has a statewide sanctuary policy restricting ICE cooperation [37]. The lack of significant differences in enforcement-induced anxiety between the two study sites suggests that the current administration's heightened immigration enforcement policies and highly charged rhetoric may be generating a nationalized climate of fear in Latinx communities similar to that described in nationwide surveys [25]. This hypothesis could be further examined by comparing adolescents from a broader range of restrictive and sanctuary jurisdictions across the U.S.

The study has key methodological limitations that should be considered when interpreting the findings. Nonrandom selection of participating schools and selection sites, reliance on convenient sample, use of self-report instruments, and exclusion of a direct measure of legal status may have introduced bias and contributed to statistical error. Moreover, our measure of immigration enforcement fear was one of perceived threats, not actual enforcement experiences. Although it would have been more precise to measure legal status or actual enforcement, there were ethical concerns about collecting this information in a school setting. Given the negative developmental consequences of perceived threat on adolescent well-being, we included the proxy measure to minimize the risk to participants.

Figure 3. Mediational analysis: separation anxiety.

The decision to test perceived discrimination as a mediator was based on the direction of factors indicated in the Integrative Model [11]. However, we acknowledge that both immigration enforcement fear and discrimination may be additive; they both likely drive anxiety. Moreover, we did not measure other core components that influence immigrant youth development, for example, family processes, as proposed by the Integrative Model [11]. As such, there are other factors likely driving anxiety in this population that are not captured in the statistical models. Finally, we also acknowledge that the moderate correlation between immigration enforcement fear and anxiety could signal that adolescents are afraid of deportation because they have trait anxiety, rather than the other way around. Thus, discrimination may be a confounding variable within the model that strengthens the correlations between immigration enforcement fear and anxiety [37]. Longitudinal data would allow for a prospective analysis of these constructs, which would then allow for more causal interpretations. Research needs to further explore the complex relation between immigration enforcement and discrimination, with a focus on reducing perceived discrimination as a mechanism of change in intervention research.

Study implications

Immigration enforcement fear, resulting from one's own or loved ones' vulnerable legal status, contributes to anxiety among Latinx high school students. This study highlights the importance of a nuanced approach to assessing anxiety to include clinical subtypes. Interventions may aim to help youth develop the skills to cope with separation-related fears and learn skills to soothe the autonomic nervous system. Still, clinical interventions will not address the systemic roots of that anxiety (e.g., restrictive immigration policies and enforcement). The nationwide anti-immigrant climate may override state and local policies that aim to protect immigrant communities. Finally, our results underscore the importance of targeting discrimination. The relation between immigration enforcement fear, discrimination, and anxiety suggests an intersectional approach. Policies and rhetoric have human consequences; immigration enforcement fear negatively impacts their health by increasing their perceived discrimination, in turn, elevating their fears of family separation and increasing their anxiety.

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Supplementary Data

Supplementary data related to this article can be found at https://doi.org/10.1016/j.jadohealth.2020.08.019.

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