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Más Que Palabras: Understanding the Mental Health Consequences of Sociodemographic Risk

and Deportation Fears in Latinx Families

THESIS

submitted in partial satisfaction of the requirements
for the degree of

MASTER OF ARTS

in Social Ecology

by

Jose Arreola

Thesis Committee:
Associate Professor Jessica Borelli, Ph.D., Chair
Professor Kirk Williams, Ph.D.
Professor John Hipp, Ph.D.

2021

DEDICATION

First, I would like to dedicate this thesis to my daughter Vivian, who has helped inspire me each day to do the best I can. I hope this also inspires her to pursue her goals one day. Secondly, I would like to dedicate this thesis to Tiffany whose support and encouragement helped to facilitate this writing process. Furthermore, I would like to dedicate this thesis to my family and friends, especially my parents, Jose and Teresa, and sister, Jacqueline, whom without their love, support, and guidance, all of this would not have been possible. Lastly, I would like to dedicate this thesis to the THRIVE Lab who has been there for me through every step of this process, providing me with support. I wish them all the best in their future endeavors.

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To Dr. Hipp, thank you for your support and guidance throughout this process. Thank you for helping me understand my analyses and statistical models. I truly valued your input and feedback with regard to constructing my model. It has been a wonderful experience having worked with you.

ABSTRACT OF THE THESIS

Más Que Palabras: Understanding the Mental Health Consequences of Sociodemographic Risk

and Deportation Fears in Latinx Families

by

Jose Arreola

Master of Arts in Social Ecology

University of California, Irvine, 2021

Jessica Borelli, Ph.D., Chair

Exponential increases in deportation and negative public discourse have resulted in heightened fears of profiling and deportation among Latinx immigrant families in the US. Deportation fears could compound the inequalities Latinx families face, contributing to worsening mental health. To better understand the mental health consequences of the climate of deportation concerns among low income Latinx mothers in the U.S., we conducted a linguistic analysis of interviews of Latinx mothers' parenting experiences, examining their use of words related to deportation fears (e.g., *separado*). We examined the interaction of cumulative sociodemographic risk with maternal deportation fears in predicting maternal and youth mental health. Recent immigrant Latinx mothers (N=150) and youth (M_{age}=12.83, SD_{age}=1.72) completed the Parent Development Interview-Revised (Slade et al., 2004), analyzed using a deportation fears custom dictionary (LIWC; Pennebaker et al., 2003). Mothers completed the Brief Symptom Inventory (Derogatis, 2001); youth completed the Youth Self Report (Achenbach, 1991). Cumulative sociodemographic risk was assessed using a composite score of six risk variables. Regressions revealed significant *sociodemographic risk* x *deportation fear* interactions for maternal

depression ($p =.01$), maternal anxiety ($p =.04$), youth depression ($p <.01$), and youth aggression ($p =.04$), but not for youth anxiety. As sociodemographic risk increased, associations between deportation fears and psychopathology decreased. The adverse impact of maternal deportation fears on mental health is visible only when demographic stress is lower. Deportation fears may increase mental health risk, potentially reducing treatment-seeking among families previously at lower risk. Findings underscore the importance of policy and sociocultural shifts.

Keywords: deportation, sociodemographic risk, linguistic, immigration, mental health

INTRODUCTION

The United States has a longstanding and contentious history with immigration. Considered a founding tenet, the U.S. has a national identity formed on the premise of ethnically and nationally diverse origins (Walzer, 1990; Wray-Lake et al., 2018). Yet, the status and rights of ethnic minorities with immigrant origins remains a highly impugned and racialized area of public discourse. These debates yield a far-reaching impact on the lives of ethnic minority immigrants and their integration into American society (Cardoso, Scott, Faulkner, & Barros Lane, 2018; Masuoka & Junn, 2013). The Latinx community accounts for the fastest developing and largest ethnic minority group in the United States (Takeuchi, Alegría, Jackson, & Williams, 2007; U.S. Census Bureau, 2018), as well as the community with the greatest influx of recent immigrants (U.S. Census Bureau, 2018). Despite their emergent visibility, Latinx youth and their families are disproportionately represented in disadvantaged sociodemographic contexts with nearly 23% living below the poverty line (Macartney, Bishaw, & Fontenot, 2013; U.S. Census Bureau, 2018). Additionally, there is considerable variability in risk within the Latinx community; these sociodemographic risk factors seldom occur in isolation. Instead, these risk factors can accumulate and present families with a greater risk for poor health, including elevated levels of depression and anxiety (Mersky, Janczewski, & Nitkowski, 2018). As such, identifying potential mental health risk factors and concerns impacting Latinx families yields important implications for effective treatment and prevention strategies (Derr, 2016; López, 2002).

Chapter 1

Review of Literature

Explaining Interrelations Between Socioecological Contexts and Mental Health

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Ecological models offer various appropriate guiding frameworks that accentuate the interplay of contextual influences, ranging from proximal to distal influences on youth's mental health and development (Bronfenbrenner, 1979). One such model is the Ecological Systems theory (EST) which asserts that youth are embedded within an interconnected system comprised of their family, peers, school, and community, as well as broader macrosystem influences all of which work in tandem to influence a youth's adjustment and overall mental health (Bronfenbrenner, 1979). For Latinx families, it is through these ecological systems in which they experience sociodemographic risk and immigration-related stressors (Garcini, Peña, Galvan et al., 2017; Quesada, Hart, & Bourgois, 2011). Although widely used for investigating youth mental health and the contexts contributing to mental health outcomes, EST is limited in addressing racial/ethnic contexts which contribute to varied experiences in the ways individuals perceive and respond to adverse life events (Spencer, 2006).

To address these limitations and also consider culturally-specific processes with regard to youth developmental outcomes, this study is guided by the integrative model of developmental competencies for minority children (García Coll, Lamberty, Jenkins et al., 1996). At the forefront of this model is the significance of identifying and understanding how socioecological processes may either promote or impede positive developmental competencies (García Coll et al., 1996). Moreover, the model recognizes that larger social systems including culture, environment, and family for ethnic minority youth are heavily influenced by racism and classism which may manifest in the form of racially, ethnically, and socioeconomically segregated and disadvantaged neighborhoods which may subject these youth to pervasive adverse experiences (García Coll et al., 1996). Further, this model may provide one avenue for explaining the link between vulnerability to punitive immigration policies and Latinx youth mental health (Cardoso, Brabeck,

Capps et al., 2021). Additionally, to understand these links within adults, we also consider the guiding principles of Minority Stress Theory (Meyer, 2003). Although initially conceptualized to explain socioenvironmental and contextual conflicts faced by sexual and gender minority populations, recent research has begun to integrate and apply this framework to understand the multilevel stressors impacting Latinx immigrants (Valentín-Cortés, Benavides, Bryce, et al., 2020). This framework demonstrates its use through its conceptualization of stress as function of social and structural systems that promote the stigmatization and discrimination of minority populations (Meyer, Schwartz, & Frost, 2008).

Sociodemographic Risks in the Latinx Community

Lower income levels consistently predict mental health risk, including depression, in Latinx samples (Ayón, Marsiglia, & Bermudez-Parsai, 2010). Specifically, economic strain is associated with a host of disruptions to family dynamics, parenting practices, as well as parents' overall well-being and functioning. This manifests in lower parental sensitivity and warmth as well as harsher parenting practices, which may place children at a greater risk for internalizing and externalizing problems (Conger, Rueter, & Conger, 2000; Gonzales, Coxe, Roosa et al., 2010). Another related and prominent risk factor, household food insecurity, has been consistently linked to poorer maternal physical health (e.g., high cholesterol, heart disease, type II diabetes), greater depressive symptoms, as well as harsher parenting and familial conflict, including among Latinx populations (Gunderson & Ziliak, 2015). Lower educational attainment is also associated with greater psychological distress among Latinx populations (Barragán, Yamada, Gilreath, & Lizano, 2020), as well as overall increases in stress level (Finkelstein, Kubzansky, Capitman, & Goodman, 2007), and poorer physical health outcomes (Hamad, Nguyen, Bhattacharya et al., 2019). Having a large family size, characterized as having three or

more children, is associated with higher risks via more reports of child maltreatment and neglect in accordance with both state records and self-reports (Brown, Cohen, Johnson, & Salzinger, 1998). Being female and unmarried is also related to risks for higher levels of psychological distress in Latinx samples (Barragán et al., 2020). Lastly, young maternal age, defined as having had the target child prior to 21 is associated with poorer mental health of mothers following their child's birth and also later in life (Aitken, Hewitt, Keogh et al., 2016).

Sociodemographic risks may be particularly impactful during adolescence when combined with influences marked by socioemotional, psychological, and biological transitions which may intensify the effects of these risk factors (Lerner and Galambos, 1998; Prelow, Loukas, & Jordan-Green, 2007). During adolescence, Latinx youth exhibit abnormally high rates of mental health issues often attributed to inordinate exposures to contextual risk factors, particularly for families within neighborhoods with greater economic disadvantage, placing both parents and their children at risk to experience a multitude of adverse outcomes (Evans, 2004; Frank & Bjornstrom, 2011; Rodriguez & Morrobel, 2004).The effects of sociodemographic risks may be even more pronounced among Latinx immigrant populations (Finno-Velasquez, Cardoso, Dettlaff, & Hurlburt, 2016; Fortuny, Capps, Simms, & Chaudry, 2009; Mendoza, Dmitrieva , Perreira, et al., 2017). In addition to experiencing sociodemographic risks, Latinx youth with immigrant parents or who themselves are immigrants must also contend with immigration-related stressors which disproportionately impact Latinx populations and have been linked to the onset of mental health issues (Cano, Schwartz, & Castillo, 2015; Mendoza et al., 2017). While immigrants may experience some positive influences post-migration, rates of psychopathology for Latinx immigrants generally increase with time spent in the U.S. (Alegría, Canino, Shrout et al., 2008). Youth with immigrant parents are at an even higher propensity for experiencing

unmet mental health needs, likely in response to their parents' lower levels of education, limited English proficiency, and poorer access to health care (Georgiades, Paksarian, Rudolph, & Merikangas, 2018; Gudiño, Lau, & Hough, 2008).

Latinx immigrants are also confronted with historical, legal, and sociopolitical forces that may increase feelings of vulnerability and impact their sense of belonging in American society, limiting their life opportunities and magnifying their risks for illness and stress (Fernández-Esquer, Agoff, & Leal 2017; Quesada et al., 2011). Research indicates that feelings corresponding to systemic marginalization negatively impact the mental health and socioemotional development of Latinx adolescents (Wray-Lake et al., 2018). For instance, accumulated exposure to discrimination and stigmatization have contributed to greater levels of stress, mental health difficulties, and increased substance use among Latinx youth (Rodriguez & Smith, 2020; Romero, Martinez, & Carvajal, 2007; Yosso, Smith, Ceja, & Solórzano, 2009). Additionally, for many Latinx youth and their families, stress related to legal documentation status has been regarded as a prominent concern linked to an array of mental health issues (Cavazos-Rehg, Zayas, & Spitznagel, 2007; Patler & Pirtle, 2018). Although progress has been made in identifying risks and barriers facing the Latinx community (Kapke & Gerdes, 2016; Sullivan & Rehm, 2005; Yeh, McCabe, Hough, Dupuis, & Hazen, 2003), research does not typically examine the interactive roles of culture-specific and sociodemographic risk factors unique to Latinx families (Delva, Horner, & Martinez, 2013; Gonzales, Suárez-Orozco, & Dedios-Sanguineti, 2013). Given the myriad of sociodemographic risks coupled with immigration-related stressors among Latinx families, we are likely to see a convergence in their effect resulting in even greater mental health risk among a population at an already high level of risk for unmet mental health needs (Alegría et al., 2008; Cano et al., 2015; Mcleigh, 2010;

Perreira & Ornelas, 2011). Thus, underscoring an important gap in the literature to address in order to increase the delivery and development of intervention and prevention strategies.

The Impact of Punitive Immigration Policies on Latinx Families

Changes in U.S. immigration policy spanning the past two decades are characterized by exponential increases in deportation among Latinx immigrant communities. Approximately 4 million Latinx children living in the U.S. come from families in which one or both of their parents are undocumented (Clarke, Turner, & Guzman, 2017; Fortuny et al., 2009; Pew Hispanic Research Center 2013). Threats of parental deportation are especially salient among Latinx immigrant families who seem to disproportionately bear the brunt of immigration enforcement policies (De Genova, 2002; Dreby, 2012a; 2012b). For instance, despite only accounting for 30% of the foreign-born population and 58% of undocumented residents (Passel & Cohn, 2011), in 2010, Mexican immigrants represented 83% of undocumented persons who were detained and 73% of whom were deported (Dreby 2012a; U.S. Department of Homeland Security, Office of Immigration Statistics, 2010). Further, approximately 22% of deported individuals are parents of U.S.-born children (Sulkowski, 2017). As a result, Latinx youth and their parents must grapple with threats to their family stability and well-being shaped by these abrupt and widespread transformations within U.S. immigration policies that have increased their parents' risk for deportation (Golash-Boza 2016; Gulbas & Zayas 2017; Roche, Vaquera et al 2018; Zayas & Gulbas 2017). More recently, the community continues to be vilified via public discourse resulting in heightened fears of profiling and deportation (Cardoso et al., 2018).

Many punitive immigrant policies at local, state, and federal levels, as well as accompanying immigration enforcement have greatly limited immigrant access to and utilization of healthcare services, while concurrently instilling a rampant sense of fear and anxiety within

the Latinx community (Arbona, Olvera, Rodriguez et al., 2010; Ayón & Becerra 2013; Becerra, 2016; Rubio-Hernandez & Ayón, 2016). The mental health impact of these policies carries with them a myriad of adverse outcomes (e.g., depression, isolation, anxiety) among Latinx immigrants as well as Latinx residents (Hatzenbuehler, Prins, Flake et al., 2017; Salas, Ayón, & Gurrola, 2013). These outcomes further augment health disparities and disrupt normative familial and developmental processes (Suárez-Orozco, Yoshikawa, Teranishi, & Suarez-Orozco, 2011; Vargas & Ybarra, 2017; Vernice, Pereira, Wang et al., 2020). For instance, policies such as the USA PATRIOT ACT and Arizona immigration law SB1070 specifically targeted Latinx immigrants via more stringent border enforcement, restrictions to obtaining legal residence or access to social services, as well as racial profiling (Pew Research Center, 2013; Santos, Menjivar, & Godfrey, 2013). Findings by Santos and colleagues (2013; 2014) linked youth's awareness of SB 1070 in Arizona to increased self-reported ethnic discrimination from authorities which was associated with lower self-esteem, aggression, and school adjustment issues. The Obama administration deported an estimated 3 million immigrants between 2009 and 2016, an increased rate compared to the Bush administration which deported about 2 million immigrants between 2001 and 2008 (Lovato, 2019; Pew Research, 2018).

Leading up to the 2016 presidential election, Donald Trump centered his campaign around anti-immigrant rhetoric, accusing Mexico of sending criminals, rapists, and drug dealers (Reilly, 2016). Additionally, the Trump Administration had suggested eliminating birthright citizenship (Davis, 2018), advocated for the construction of a wall along the US-Mexico border (Nixon & Qui, 2018), threatened to revoke Deferred Action for Childhood Arrivals (DACA) protections (Shear & Hirschfield, 2017), and separated migrant children from their parents (Radnofsky, Andrews, & Fassihi. 2018). The Trump administration led to the dawn of a new

wave of immigration raids and detentions, demonstrated by an expansion on the number of Immigration and Customs Enforcement (ICE) officers as well as a 33% increase in immigration-related arrests relative to the Obama administration (Bialik, 2018). Important policy changes during the Trump administration were comprised by broadening eligibility for deportation which included and increased the deportation of long-term residents without criminal records (U.S. Immigration and Customs Enforcement, 2017). Additionally, there were also efforts to eliminate Temporary Protected Status (U.S. Citizenship and Immigration Services, 2017), a short-term immigration status provided to those from designated countries confronting environmental disasters or war-torn environments. The Trump administration also ended the DACA program, which had provided protection to undocumented Latinx individuals brought to the U.S. as children (Roche, Vaquera, White, & Rivera, 2018; U.S. Department of Homeland Security, 2017). As a result of anti-immigrant rhetoric and increased immigration enforcement, anti-immigrant sentiment in the U.S. has risen (Becerra, 2016) generating considerable fear and anxiety within immigrant communities (Lopez, Gonzalez-Barrera, & Krogstad, 2018; Eskenazi et al., 2019).

Fear of Deportation and Mental Health

Extending beyond the direct influences of immigration enforcement, there remains an ominous sense of threat and fear of deportation conjointly affecting immigrants and their families (Ayón, 2020). Consequently, fear of deportation among immigrant communities has increased substantially in response to rising rates of detention and deportation (Becerra, Hernandez, Porchas et al., 2020; Lopez et al., 2018). The rise in anti-immigrant sentiment has prompted Latinx immigrants to express increased worries for family members and those within their social networks (Szkupinski Quiroga, Medina, & Glick, 2014). Deportation fears increased

steadily during the Trump administration; among a sample of Latinx individuals surveyed, 55%

expressed fears of deportation for themselves or a family member, including 63% foreign-born

and 43% U.S.-born respondents (Lopez et al., 2018). The adverse outcomes of the current

immigration climate may be especially pronounced for Latinx parents and their adolescent-aged

children. Relative to younger children, adolescents demonstrate an acute awareness of the

stressors their families face including understanding their families' legal status (Brabeck, Lykes,

& Hunter,2014; Dreby 2012; 2013; Roche et al., 2018; White, Updegraff, Umaña-Taylor et al.,

2017). Adolescents are also more likely to have spent their formative years of identity

development within the U.S., under the current immigration contexts, this has contributed to

increased fears of separation, as well as conflicting feelings pertaining to their ethnic identity and

citizenship status (White et al., 2017; Roche et al., 2018). Research has just begun to investigate

the domino effect of punitive immigration policies and anti-immigrant rhetoric on immigrant

families, specifically in families with varying legal statuses (e.g., mixed status families) (Dreby,

2013).

To date, research has documented the ways in which escalations in immigration

enforcement practices have contributed to heightened reports of stigmatization, fears about the

future, hopelessness, as well as rates of anxiety and depression among U.S.-born children,

undocumented youth, and/or youth from mixed-status households (Cardoso et al. 2021; Cavazos-

Rehg et al.,2007; Gonzales & Chavez, 2012). For instance, qualitative work with Latinx

adolescent samples has helped elucidate core themes such as feelings of anger, contempt, fear,

and anxiety as well as greater reports of experiences and consciousness of discrimination in

response to the recent immigration political landscape (Ayón 2020; Wray-Lake et al., 2018).

Findings by Eskenazi and colleagues (2019) linked fear and worry pertaining to the current

immigration climate to higher anxiety levels, sleep issues, and changes in blood pressure among U.S. born Latinx adolescents, with anxiety significantly increasing following the 2016 presidential election. In a similar vein, Cardoso and colleagues (2021) found that immigration enforcement fear was associated with elevated levels of somatic and separation anxiety among a sample of first- and second-generation Latinx adolescents. Further, interviews with service providers highlight the detrimental toll of these immigration enforcement practices on the mental health of Latinx parents and their patterns of psychological help-seeking (Held, Nulu, Faulkner, & Gerlach, 2020; Wray-Lake et al., 2018).

In sum, research suggests that the socioecological contexts of immigrants and their experiences in the U.S. yield a prominent influence on their mental health functioning. Specifically, increases in deportation fears, which have increased in the current sociopolitical climate, have been associated with increases in discrimination, trauma, and mental health difficulties among Latinx adolescents (e.g., internalizing and externalizing problems) and their parents (e.g., anxiety, depression) (Becerra, Hernandez, Porchas et al., 2020; Gulbas & Zayas, 2017; Gulbas, Zayas et al., 2016; Perreira & Pedroza, 2019). Given that Latinx individuals are already at an elevated risk due to sociodemographic disadvantages (Borelli, Russo, et al., 2021; Cano, Schwartz, et al., 2015), it is imperative to identify and address the processes by which sociodemographic and culturally-specific risks affect the mental health adjustment of this population, yet, the interaction between deportation fears and sociodemographic risk has garnered little empirical inquiry. Thus, the purpose of the present study is to examine the associations between fear of deportation, sociodemographic risk, and maternal and youth psychopathology so that culturally-driven preventive interventions may be developed.

Más Que Palabras: **Language use and the underlying psychological states of Latinx moms**

Natural language use reveals important information about underlying psychological states and traits (Borelli et al., 2013; Pennebaker, Mehl, & Niederhoffer, 2003). In the current study, we conducted a linguistic analysis of mothers' semi-structured interviews about their emotions in parenting, examining their use of words related to deportation fears (e.g., *separado*). Moreover, within the current study we measure deportation fears as they occurred during a parenting interview, thus providing us insight with reference to deportation fears as they occur within the context of one's mental representations of being a parent. The utilization of linguistic measures to study deportation fear in the context of parenting depicts a relatively new exploit, this approach enabling the assessment of observable behaviors and their association with psychological health (Baumeister, Vohs, & Funder, 2007; Borelli, Sbarra, Mehl, & David, 2011; Pennebaker et al, 2003; Tausczik & Pennebaker, 2010). To our knowledge, the current study is the first to utilize Linguistic Inquiry and Word Count (LIWC) in the investigation of deportation fears and parenting in the context of the current sociopolitical climate.

Whereas self-report measures remain the prevailing method for assessing various aspects of relationships (e.g., Bernier & Dozier, 2002; Borelli et al., 2011; 2013; Brennan, Roisman et al., 2007), this approach relies on the assumption that individuals possess the insight needed to complete these measures honestly and the ability to consciously assess their behaviors (Jacobvitz, Curran, & Moller, 2002). Conversely, linguistic analyses can reveal a great deal of variability in psychological states existing outside of one's conscious awareness. Further, as behavioral samples, linguistic analyses are not as susceptible to the constraints of self-report methods (Borelli et al., 2013; Jacobvitz et al., 2002; Pennebaker et al., 2003). Importantly, research also delineates that self-reports do not converge with linguistic assessments (Crowell, Fraley, & Shaver, 2008; Rohrbaugh et al., 2012), thus calling into question the utility of relying

solely on self-reported data (Bernier & Dozier, 2002; Jacobvitz et al., 2002). One explanation for this lack of convergence with linguistic analyses may be because observational and linguistic measures occur within a specific context, whereas self-reports merely ask respondents how they typically act or behave (Borelli et al., 2013; Rohrbaugh et al., 2012). Ultimately, through the use of natural language processing, we tap into observed measures of deportation fears as they pertain to parenting, a much-needed contribution to the field given that many immigrant parents are concerned about being deported and getting separated from their children (Cardoso et al., 2018).

Current Study

Despite recent advancements in the field, much remains to be understood about the psychological consequences of deportation fears and immigration enforcement on Latinx adolescents and their immigrant parents. This study sought to address this gap and offer an in-depth assessment of psychopathology within a sample of recent immigrant Latinx mother-youth dyads. The current study emphasizes a community-based participatory research (CBPR) approach in examining the interaction of deportation fears with cumulative sociodemographic risk in predicting maternal and youth mental health. CBPR draws upon the strengths and knowledge of community members and stakeholders through the formation of equitable partnerships with individuals directly impacted by these health disparities and policies (Ferrera, Sacks, Perez et al., 2015; Ford-Paz, Reinhard, Kuebbeler, Contreras, & Sánchez, 2015; Horowitz, Robinson, & Seifer, 2009). CBPR has been instrumental in furthering our understanding and addressing various mental health disparities in the Latinx community (Israel, Schulz, Parker, & Becker, 1998; Israel, Schulz, Parker et al., 2017).

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The current study was conducted in partnership with Latino Health Access (LHA), a non-profit *promotora* (community health worker)-led program situated in a markedly underserved, southern California community. Their mission is in the promotion of violence prevention and reduction of health disparities among the local Latinx community. The research team had an ongoing intervention, co-developed by LHA to expand beyond traditional cognitive-behavioral and skill-building programs to address multiple layers of risk including neighborhood factors, family strengths, and cultural values (e.g., Borelli, Yates, Hecht et al., 2020). LHA staff and community members aided in identifying culturally congruent values, norms, and resources to create an intervention more likely to be accepted, utilized, and integrated into the communal structure (Borelli et al., 2020; Cicchetti, Rappaport, Sandler, & Weissberg, 2000). Through this collaboration, our research team became more cognizant of the significant adversities our sample as a whole faced; during the years of data collection (2018-2020), ICE raids and deportation were remarked as a constant concern for our participants.

Due to our interest in linguistic markers of deportation fear, we assess word use related to deportation fears in mothers' semi-structured interviews regarding their parenting experiences and examine its associations with child and maternal psychopathology. The cumulative sociodemographic risk variable was a composite measure comprising six indices representing greater socioeconomic and demographic stress as informed by prior research (cf., Borelli, Russo, Arreola et al., 2021). We examined associations between a linguistic index of maternal deportation fears, cumulative sociodemographic risk, and mental health outcomes (e.g., maternal: depression, anxiety; youth: depression, anxiety, aggression), testing three hypotheses. First, we predicted that greater sociodemographic risk would be associated with greater psychopathology in youth and their mothers (Hypothesis 1). Second, we predicted that greater

reports of deportation fears would be associated with higher psychopathology symptoms in youth and their mothers (Hypothesis 2). Finally, we predicted that deportation fears would moderate the association between sociodemographic risk and psychopathology in youth and mothers, such that the association between these two variables would intensify in the presence of greater reports of deportation fears (Hypothesis 3).

CHAPTER 2

METHODOLOGY

Method

Design

This study investigated association between a linguistic index of maternal deportation fears, sociodemographic risk, and mental health outcomes in a sample of recent immigrant Latinx mother-youth dyads. The sample was drawn from the baseline assessment of the Youth Engaged for Action YEA/Madres a Madres (YEA/Madres) program, a collaborative community intervention focused on promoting parent-child attachment bonds and reducing mental health symptoms and disparities among Latinx mothers and their children (ages 10 to 17) who are at elevated risk for violence exposure (see Borelli et al., 2020). Utilizing the principles of community-based participatory research, the larger-scale intervention study was codesigned and developed in collaboration between the University of California, Irvine research team and LHA. The intervention study entailed randomized controlled trials of the *promotora*-led program in three Santa Ana, California neighborhoods, with another three neighborhoods serving as comparison sites.

Participant Recruitment

Families were recruited from neighborhoods identified as having high levels of inequalities in accordance with the 10-year Building Healthy Communities Initiative funded by the California Endowment (2010–2020). The LHA *promotoras* recruited families residing within one of these neighborhoods via door-to-door outreach, neighborhood flyers, word of mouth, and contacting families through lists provided from local schools. Families underwent over-the-phone screening to determine eligibility, which included living within one of the high crime neighborhoods, having a child between 11 and 17 years old, Spanish and/or English fluency, no ongoing mental health treatment, and no present developmental disabilities nor mental disorder diagnosis in the parent or child. The participants are predominately recent immigrant families from Latin America.

Procedures

This study was approved by the Institutional Review Board (HS# 2017-3974). Families eligible to participate in the intervention study were provided with additional information administered by trained bilingual research assistants. Parents and youth then provided consent and assent before proceeding with an intake assessment which included a battery of questionnaires and attachment measures. Families were then randomized to an intervention or waitlist control group. Assessments took place at LHA in their preferred language (Spanish or English). Trained research assistants explained how to complete Likert scales and offered to read the items to support participants comprehension of the material, remaining in the room the entire time.

Sample Characteristics

The current sample consisted of $N = 150$ mothers ($M_{age} = 40.81$, $SD_{age} = 6.72$) and their child between the ages of 11 and 17 ($M_{age} = 12.72$, $SD_{age} = 1.72$). Overall, mothers in the sample

had 3.15 children (including the child involved in the study, *SD* = 1.02). On average, mothers

had reported completing up to an eighth-grade level education (*SD* =2.89 years). The majority of

mothers in our sample reported they had not been born in the United States (88.6%) and

primarily spoke Spanish (100%). Moreover, the largest percentage of the sample was from

Mexico (80.3%), and the remainder were from either El Salvador (3.3%), Guatemala (.7%), or

born in the U.S. (.7%). The majority of youth were born in the U.S. (95.9%) and spoke both

Spanish and English at home (77.6%). Due to the sensitivity of this issue, we did not directly ask

mothers how many years had elapsed since they had immigrated. Instead, per the

recommendation of the LHA *promotoras*, we asked how long mothers had lived in Santa Ana as

a proxy for immigration. 19.9% reporting having moved to Santa Ana more than 20 years ago,

58.8% reported between 11 and 20 years, 16.9% between 6 and 10 years, 2.2% between 3 and 5

years, and .7% between 1 and 2 years.

Measures

Fear of Deportation

Recent immigrant Latinx mothers completed the Parent Development Interview-Revised

in Spanish (Slade, Aber, Bresgi, Berger, & Kaplan, 2004), which were transcribed and analyzed

using an empirically- and culturally-informed linguistic index of maternal deportation fears

custom dictionary via Linguistic Inquiry and Word Count (LIWC; Pennebaker, Mehl, &

Niederhoffer, 2003; Pennebaker, Booth, Boyd, & Francis, 2015) software. To construct the

custom dictionary, we consulted the empirical literature on deportation fears, reviewing articles

describing qualitative studies of deportation fears. We identified common themes such as fear of

separation, feeling unsafe or uneasy, increased discrimination and profiling, and concern for

parents' status (Fleming et al., 2019; Lovato, 2019; Lovato & Abrams 2020; Rayburn et al.,

2021; Rios Casas et al., 2020; Wray-Lake et al., 2018). We then began an iterative process extracting words used in descriptions of deportation fears, met, and discussed their relevance until we had a comprehensive dictionary.

The custom dictionary was written in English, then translated in Spanish, and back-translated to ensure accuracy. LIWC analyzes and calculates the percentages of words in writing or speech samples that correspond to a specified linguistic category, in this case, words pertaining to fears of deportation. Mean values are generated to indicate the average percentage of all of the words participants had used during their interviews that matched the deportation fear category. A mean score of .0872 for deportation fear words indicates that 8.72% of the words used by participants were related to deportation fears (e.g., *separado*). The final dictionary consisted of 53-word stems displayed on Table 3 (see **Appendix**).

Sociodemographic Risk

Participants' scores were tabulated on a total of six sociodemographic risk indices comprised of: food insecurity in the past year, low educational attainment, high number of children, low family income, single marital status, and young maternal age. For each indicator, participants received a score of either present (1) or absent (0); a mean "risk" score was then generated across these six indicators, which represented their cumulative risk score. Scores ranged 0 to 1, with higher scores depicting greater risk; this risk variable was normally distributed. In the following section, we provide details on these six indices.

Composite variables: For food insecurity, mothers indicated whether they had lacked money to purchase food in the prior year. Those who reported "yes" were considered to have experienced food insecurity. Low educational attainment was assessed via mother's report of the highest grade they had completed, which was then dichotomized based on whether or not

mothers had completed high school. Mothers reported on the total number of children they had

including the child enrolled in the program. We then dichotomized this variable so that mothers

who reported having three or more children received a score of 1, and mothers who reported

having two or fewer children received a score of 0. Mothers reported their annual household

income. Based on the U.S. census bureau's guidelines for the poverty level in 2020 for a family

of five residing in California, which was $30,680 (https://aspe.hhs.gov/ 2020-poverty-

guidelines), we calculated whether families earned an annual income above (0) or below (1) the

poverty line. According to the census bureau, the average income in 2020 for Latinx individuals

residing in Santa Ana was $16,844 (SD = $324.00). Mothers then indicated their current

romantic status (e.g., single, separated, divorced, widowed, married, unmarried domestic

partnership). We dichotomized relationship status into one of two categories, single (1), which

represented the risk category, and in a relationship (0). Lastly, mothers indicated their current

age and age of their target child. These ages were used to calculate mothers' ages when their

target child was born, we dichotomized their responses based on whether mothers were older

(low risk, 0) or younger (high risk, 1) than 21 years when they had their target child.

Maternal Psychopathology

Mothers reported on their own anxiety symptoms via the 6-item subscale of the 18-item

Brief Symptom Inventory (BSI-18; Derogatis, 2001). Responses were made on a 5-point Likert

scale from 0 (Not at all) to 4 (Extremely) (e.g., During the past week including today, how much

were you distressed by nervousness or shakiness inside?). Mothers also reported on their own

depressive symptom's symptoms using the 6-item subscale of the 18-item Brief Symptom

Inventory (BSI-18; Derogatis, 2001). Items are rated on a similar scale from 0 (Not at all) to 4

(Extremely) (e.g., During the past week including today, how much were you distressed by

feelings of worthlessness?). Previous studies have documented good reliability and validity among low-income Latinx mothers (Prelow, Weaver, Swenson, & Bowman, 2005). Internal consistency for the anxiety subscale (α = .87) and depression subscale (α = .83) were good.

Youth Psychopathology

Adolescents reported on their aggression, depression, and anxiety symptoms using the Youth Self Report (YSR; Achenbach, 1991), which assesses psychopathology among youth between the ages of 11 to 18. Participants responded to items inquiring about the presence of mental health problems during the past 6 months on a 3-point scale (e.g., 0=not true; 1=somewhat/sometimes true; 2=very/often true). This investigation used the anxiety problems scale (9 items; e.g., I'm afraid of going to school); which demonstrated good internal consistency (α = .74). This study used the depression problems scale (13 items; e.g., I feel that no one loves me); Cronbach's α was good, α = .84. Participants also reported on their own aggressive behaviors (17 items; e.g., I get into many fights); which also demonstrated good internal consistency α = 81. The YSR has previously been validated with Spanish and Brazilian adolescent populations (Zubeidat, Dallasheh, Fernandez-Parra, Sierra, & Salinas, 2018).

Data Screening

Data screening procedures found our deportation fear variable to be slightly skewed; as such, we utilized square root transformation prior to using this variable in our analyses. Given the nature of these variables, skewness and kurtosis were expected. A few univariate outliers were also identified within these variables; however, no impossible values were detected. In evaluating multivariate normality, a Mahalanobis distance was calculated for each respondent on all continuous variables of interest. A few multivariate outliers were also identified. Despite having these outliers, we proceeded with the analyses given that the participants were either

immigrants or descendants of immigrants and were also within our intended age range for the study.

Data Analytic Strategy

Upon assessing the distribution of our study variables, we tested for the presence of differences based on child sex (e.g., independent sample t tests) and for associations with child and mother's age (e.g., bivariate correlations). To examine study hypotheses, we conducted a series of moderated multiple regressions via IBM SPSS Statistics for Windows, Version 27.0 (2020) and PROCESS (Hayes, 2012). Moreover, we tested for associations between sociodemographic risk (Hypothesis One), mother-reported deportation fears (Hypothesis Two), and their interaction (Hypothesis Three) in predicting youth (e.g., anxiety, depression, aggression) and maternal psychopathology (e.g., anxiety, depression), while accounting for relevant covariates such as youth age, youth sex, or one of the other mental health variables.

CHAPTER 3

RESULTS

Results

Sample Descriptives

Descriptive statistics are displayed in Table 1 (see **Appendix**). There were no statistically significant differences in any of our key study variables as a function of child sex. Bivariate correlations revealed a number of significant correlations, presented in Table 2 (see **Appendix**). Specifically, older youth age and younger mother age were related to greater sociodemographic risk. Lower mother age was also related to greater youth aggression and higher maternal depression was associated with higher maternal anxiety.

Hypothesis Testing

We examined the main effects of sociodemographic risk and deportation fear in predicting youth and maternal psychopathology, as well as whether deportation fear moderated the association between sociodemographic risk and psychopathology.

Prediction of Youth Psychopathology

Youth Depression. The first regression model comprised of sociodemographic risk, deportation fear, and their interaction along with the covariates of youth sex, age, and youth-reported anxiety explained a signification proportion of variance in youth-reported depression, $F(6,142) = 18.94$, $p < .001$, $R^2 = .44$. The addition of the sociodemographic risk x deportation fear interaction significantly contributed to the prediction of youth depression, $\Delta F(1,142) = 9.04$, $p < .01$, $\Delta R^2 = .04$. Individual regression weights revealed sociodemographic risk was a significant predictor of youth depression, such that higher levels of risk were associated with higher levels of youth depression, $\beta = .338$, $b = 7.12$, $SE = 2.38$, 95% CI [2.42, 11.82], $p < .01$. Deportation fear also demonstrated a significant positive association with youth depression, $\beta = .587$, $b = 15.10$, $SE = 5.15$, 95% CI [4.92, 25.28], $p < .01$. Youth-reported anxiety was positively related to youth depression, $\beta = .615$, $b = .869$, $SE = .09$, 95% CI [.688, 1.05], $p < .001$. Neither youth age ($p = .38$) nor youth sex ($p = .42$) was associated with youth depression. Deportation fear significantly moderated the association between sociodemographic risk and youth-reported depression, $\beta = -.673$, $b = -24.11$, $SE = 8.02$, 95% CI [-39.96, -8.26], $p < .01$. Conditional effects analyses revealed that the association was significant at low levels of deportation fear, such that under low levels of deportation fear, the association between sociodemographic risk and youth depression increased ($b = 5.59$, $t(144) = 2.83$, $p < .05$; see Figure 1 in **Appendix**). At mean ($b = 1.14$, $t(143) = .862$, $p > .05$) and high ($b = -3.05$, $t(143) = -1.60$, $p > .05$) levels these effects were not significant.

Youth Anxiety. This regression model consisted of sociodemographic risk, deportation fear, their interaction as well as youth sex, age, and youth-reported depression as covariates. The model significantly predicted youth anxiety, $F(6,142) = 17.83$, $p < .001$, $R^2 = .43$. However, adding the sociodemographic risk x deportation fear interaction did not significantly contribute to the prediction of youth anxiety, $\Delta F(1,142) = .398$, $p > .05$, $\Delta R^2 = .002$. Sociodemographic risk was not a significant predictor of youth anxiety ($\beta = -.131$, $b = -1.95$, $SE = 1.75$, *95% CI* [-5.41, 1.51], $p > .05$), nor was Deportation fear ($\beta = -.154$, $b = -2.81$, $SE = 3.80$, *95% CI* [-10.33, 4.70], $p > .05$). Deportation fear did not significantly moderate the association between sociodemographic risk and youth-reported anxiety, $\beta = .147$, $b = 3.74$, $SE = 5.93$, *95% CI* [-7.98,15.46], $p > .05$. Youth age did not predict youth anxiety ($p = .35$), but youth sex was positively related to youth anxiety, $\beta = .129$, $b = .748$, $SE = .37$, *95% CI* [.018, 1.48], $p < .05$. Lastly, youth-reported depression was positively related to youth-reported anxiety, $\beta = .632$, $b = .448$, $SE = .05$, *95% CI* [.355, .541], $p < .001$.

Youth Aggression. The regression model containing sociodemographic risk, deportation, their interaction (predictors) and youth sex and age (covariates) did not significantly predict youth-reported aggression, $F(5,143) = 1.92$, $p > .05$, $R^2 = .06$. The inclusion of the sociodemographic risk x deportation fear interaction term did however contribute significantly to the prediction of youth aggression, $\Delta F(1,143) = 4.15$, $p < .05$, $\Delta R^2 = .03$. Regression coefficients indicated sociodemographic significantly predicted youth aggression, such that higher levels of risk were related to greater youth aggression, $\beta = .362$, $b = 7.73$, $SE = 3.11$, *95% CI* [1.58, 13.88], $p < .05$. Deportation fear was not a statistically significant predictor of youth-reported aggression, $\beta = .437$, $b = 11.40$, $SE = 6.72$, *95% CI* [-1.87, 24.68], $p = .09$. Youth sex did not predict youth aggression ($p = .74$), youth age verged marginal significance in the prediction of

aggression, β = -.166, b = -.440, SE = .22, 95% CI [-.876, -.005], p = .05. While not yielding a main effect, the interaction between deportation fear and sociodemographic risk did significantly predict youth-reported aggression, β = -.585, b = -21.26, SE = 10.43, 95% CI [-41.88, -.636], p < .05. Conditional effects analyses demonstrated that under low levels of deportation fear, there was a significant increase in the association between sociodemographic risk and youth-reported aggression, (b = 6.38, t(143) = 2.46, p < .05; see Figure 2 in **Appendix**). These effects were non-significant at mean (b = 2.66, t(143) = 1.51, p > .05) or high levels (b = -1.06, t(143) = -.425, p > .05).

Prediction of Maternal Psychopathology

Maternal Depression. The model consisting of sociodemographic risk, deportation fear, the interaction term, and the covariate of maternal anxiety explained a explained a signification proportion of variance in maternal depression, F(4,145) =34.84, p < .001, R^2 = .49. The sociodemographic risk x deportation fear interaction significantly contributed to the model's prediction of maternal depression, ΔF(1,145) = 10.58, p < .01, ΔR^2 = .04. Assessment of the individual regression weights indicated sociodemographic risk was not a significant predictor of mother's depression, but did verge marginal significance, β = .193, b = .90, SE = .49, 95% CI [-.073, 1.87], p = .07. The regression weight for deportation fear revealed a significant positive association with maternal depression, β = .667, b = 3.81, SE = 1.07, 95% CI [1.69, 5.94], p < .01. Mother's anxiety was positively related to mother's depression, β = .655, b = .655, SE = .06, 95% CI [.538, .773], p < .001. Deportation fear significantly moderated the association between sociodemographic risk and maternal depression, β = -.683, b = -5.43, SE = 1.67, 95% CI [-8.73, -2.13], p < .01. Conditional effects analyses demonstrated that under high levels of deportation fear there was a significant decrease in the association between sociodemographic risk and

maternal depression (b = -1.34, $t(145)$ = -3.39, $p < .01$; see Figure 3 in **Appendix**). Under low (b = .551, $t(143)$ = 1.35, $p > .05$) and average (b = -.395, $t(143)$ = -1.43, $p > .05$) the effects were non-significant.

Maternal Anxiety. The regression model containing sociodemographic risk, deportation fear, their interaction along with the covariate of maternal depression significantly predicted mother's anxiety, $F(4,145)$ = 30.87, $p < .001$, R^2 = .46. The inclusion of our interaction term (the sociodemographic risk x deportation fear) significantly contributed to the prediction of maternal anxiety, $\Delta F(1,145)$ = 4.33, $p < .05$, ΔR^2 = .02. Individual regression coefficients revealed sociodemographic risk was not a significant predictor of maternal anxiety, β = -.110, b = -.51, SE = .51, *95% CI* [-1.52, .494], $p > .05$. Deportation fear was also a non-significant predictor of maternal anxiety, but did verge marginal significance, β = -.401, b = -2.29, SE = 1.14, *95% CI* [-4.54, -.047], p =.05. Maternal depression was positively related to mother's anxiety, β = .694, b = .694, SE = .06, *95% CI* [.569, .819], $p < .001$. Deportation fear did however significantly moderate the association between sociodemographic risk and youth-reported depression, β = .459, b = 3.65, SE = 1.75, *95% CI* [.183, 7.11], $p < .05$. Conditional effects analyses revealed that the association was significant at high levels of deportation fear, such that under high levels of deportation fear, the association between sociodemographic risk and youth depression increased (b = .991, $t(145)$ = 2.39, $p < .05$; see Figure 3 in **Appendix**). The effects were not present at either low (b = -.281, $t(143)$ = -.666, $p > .05$) or average (b = .355, $t(143)$ = 1.24, $p > .05$) levels.

In sum, Hypothesis One assessing the associations between sociodemographic risk and youth and maternal psychopathology was only partially supported. Specifically, sociodemographic risk significantly predicted youth-reported depression and aggression, but not youth-reported anxiety nor maternal depression or anxiety. Our results also only partially

supported Hypothesis Two, assessing the associations between deportation fear and youth and maternal psychopathology. Moreover, deportation fear was a significant predictor of youth-reported depression and maternal depression, but not youth-reported aggression, youth-reported anxiety, or maternal anxiety. Lastly, Hypothesis Three assessing the interaction of sociodemographic risk and deportation fear in predicting youth and maternal psychopathology was only partially supported. Deportation fear moderated the associations between youth-reported depression and sociodemographic risk, youth-reported aggression and sociodemographic risk, and maternal depression and sociodemographic risk, but not for youth and maternal anxiety.

CHAPTER 4

DISCUSSION

Discussion

Since the 2016 presidential election, immigrant communities have frequently reported feeling unwelcomed and uneasy given the rapid pace at which anti-immigrant policies and rhetoric have progressed (Ayón, 2020; Fleming, Lopez, Mesa et al., 2019; Wray-Lake et al., 2018). As such, we directed our efforts at investigating the individual and interactive associations of sociodemographic risk and deportation fear with youth and maternal psychopathology within a sample of Latinx families. Despite representing one of the largest and fastest growing ethnic groups within the United States (Colby & Ortman, 2015), the Latinx community must contend with an array of socioecological stressors (Mendoza, Dmitrieva, Perreira et al., 2017) and untreated mental health concerns (e.g., NHQD Report, 2019). Despite advancements in identifying mental health stressors and barriers to healthcare (Alegría et al. 2008; Kataoka, Zhang, & Wells, 2002), findings do not generally examine how

sociodemographic contexts unique to this population interact with culturally-specific risk factors

and processes to influence mental health. The current study reflects a significant contribution by

providing an in-depth assessment of psychopathology and risk factors within a sample of low-

income Latinx mothers and their youth.

We hypothesized greater cumulative sociodemographic risk would be associated with

higher levels of psychopathology for both mothers and youth. This hypothesis was not generally

supported in predicting maternal psychopathology and youth anxiety. However, similar to prior

literature, our findings indicate sociodemographic risk is significant in predicting youth

depression and aggression (Garcini et al., 2017; Gerard & Buehler, 2004; Prelow et al, 2007).

Our findings pertaining to maternal anxiety, depression, and youth anxiety conflict with prior

research which has consistently linked greater sociodemographic risk with higher levels of

various youth and adult psychopathologies (Belle & Doucet, 2003; Gerard & Buehler, 2004;

Prelow et al, 2007). One issue that may manifest in the lack of identified effects is a restriction of

range issue, given that our sample was exclusively drawn from low income, high crime

neighborhoods populated by immigrant families. It is also important to consider that Latinx

families with immigrant parents are more likely to live in disadvantaged communities, in which

economic-stressors (e.g., poverty) are associated with psychopathology (White, Liu, Nair, &

Tein, 2015). Further, residence within high-crime neighborhoods places these families at higher

risk for trauma and community violence exposure (Garcini et al., 2017), which may desensitize

youth, resulting in decreased psychophysiological reactivity to stress (Cooley-Quille et al.,

2001).

Extant literature has previously linked restrictive immigration policies and enforcement

strategies along with anti-immigrant sentiment to worsening physical and mental health, family

separation, trauma exposure pre- and post- migration, and discrimination among Latinx populations (Becerra et al., 2020; Cavazos-Rehg et al., 2007; Dreby, 2015; Salas et al., 2013). Concerns about legal status and fear of deportation among Latinx immigrant parents are salient themes identified within the literature associated with particularly deleterious consequences on their emotional, physical, and mental health (Ayón & Becerra, 2013; Eskenazi et al., 2019). Particularly for undocumented parents, feelings of vulnerability and being persecuted by immigration authorities or law enforcement may never fully dissipate despite having lived in the U.S. for an extended period of time (Ayón & Becerra, 2013; Cavazos-Rehg et al., 2007; Eskenazi et al., 2019; Garcini et al., 2017). Feelings of prolonged stress and worry due to their undocumented status in the U.S. further increases the risk for both Latinx adults and youth to incur socioemotional and health issues as well as refrain from seeking mental health services (Alegría et al., 2008; Cavazos-Rehg et al., 2007; Patler & Pirtle, 2018). The effects of deportation fear have also been identified within Latinx citizen-children who worry for the safety of their immigrant parents (Vargas & Ybarra, 2017; Yoshikawa & Kalil, 2011; Zayas, Aguilar-Gaxiola, & Yoon, 2015). Out of sensitivity to our sample's privacy and the desire to establish trust and refrain from adding to their distress, we did not directly ask about the family's immigration status, a common practice in research with Latinx immigrants (e.g., Cavazos-Rehg et al., 2007; Finch, Kolody, & Vega, 2000; Thoman & Surís, 2004). Thus, we were not able to directly assess the role of legal status which would likely yield significant explanatory power in predicting mental health.

Our hypothesis that greater deportation fear would be associated with higher levels of psychopathology for youth and their mothers was only partially supported. Specifically, our findings corroborate that of previous research in identifying a significant positive association

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between deportation fears and both youth and maternal depression as well as maternal anxiety (Becerra et al., 2020; Delva et al., 2013; Gulbas, Zaya et al., 2016; Salas et al., 2013). As hypothesized, youth expressing greater fears of deportation endorsed higher scores of depression, likely stemming from concerns for the safety of their parents or loved ones (e.g., Wray-Lake et al., 2018), fear of separation (e.g., Lovato, 2019; Rayburn et al., 2021), and becoming increasingly conscious of discrimination (e.g., Cardoso et al., 2021). Similarly, mothers expressing greater deportation fears also reported increased anxiety and depression likely for reasons including fear of separation from their child (Lovato & Abrams, 2020; Rayburn et al., 2021), inability to protect their child (Fleming et al., 2019; Lovato & Abrams, 2020), and feeling persecuted based on their ethnicity and legal status (Ayón et al., 2010; 2013; Finch et al., 2000). Although not explored in this study, these concerns of deportation may also extend to other individuals within their social networks (i.e., extended family, neighbors, friends) (Becerra et al., 2020).

Our hypotheses pertaining to youth aggression and anxiety did not demonstrate significance, a finding inconsistent with prior literature. In majority Latinx samples, researchers have found greater levels of depression, anxiety, and externalizing behaviors among youth and parents who reported a greater fear of deportation (Cardoso et al., 2021; Delva et al., 2013; Dreby, 2013; Salas et al., 2013). Similarly, studies examining the role of punitive immigration measures have demonstrated associations with elevated levels of discrimination and stigmatization which have been linked to a host of psychopathology outcomes (e.g., anxiety and depression, Landale, Hardie, Oropesa, & Hillemeier, 2015; Viruell-Fuentes, 2007). It is important to note, the geographic region in which Latinx immigrants immigrate to and settle may either increase or buffer the stress related to being undocumented and Latinx (Arellano-Morales,

Roesch, Gallo, et al., 2015; González Burchard, Borell, et al., 2005**;** Vargas, Sanchez, & Juárez, 2017). For instance, those living in areas where the Latinx immigrant community has less of a presence may have to contend with fewer social networks, resources, and greater potential for discriminatory experiences relative to those within communities with higher-densities of Latinx immigrants (Arellano-Morales et al., 2015; González Burchard et al., 2005**;** Vargas et al., 2017).

Finally, we had hypothesized that deportation fear would moderate the association between sociodemographic risk and youth and maternal psychopathology. The interaction between sociodemographic risk and deportation fear was significant in predicting youth depression and aggression as well as mother's depression and anxiety, but not youth anxiety. This may be partially explained by the lack of associations between sociodemographic risk and youth anxiety. Further analyses revealed that only at low levels of deportation fear did the association between sociodemographic risk and youth depression and aggression increase. For maternal depression, conditional analyses revealed that only under higher levels of deportation fear did the relation between sociodemographic risk and maternal depression decrease. The main conclusion that may be derived from this study is that the adverse impact of maternal deportation fears on mental health is visible only when demographic stress is lower. Essentially, deportation fears are most significant in their association with mental health issues when families have fewer sociodemographic concerns, thus, implying that the day-to-day concerns for these families may be more pressing in terms of their associations with mental health.

The aforementioned findings are in contrast to some literature in which the confluence of sociodemographic risk and immigrant-related stressors, such as discrimination and fear of deportation both increase risk for a broad range of mental health problems among both parents and their children (Cardoso et al., 2018; Cano et al., 2015; Mcleigh, 2010; Perreira & Ornelas,

2011). The effects we are seeing may be partially explained by the region in which our sample was drawn. The community is fairly homogeneous (e.g., comprised almost exclusively of low income Latinx families); as a result, they may have to confront deportation threats and risks less often than those in other communities. Furthermore, it may be the case that sociodemographic risk and neighborhood stressors, such as poverty and community violence may take precedence. This is especially likely given the high rates of poverty and violence within our sample's neighborhood.

Limitations

In addressing the weaknesses in our study, the study was cross-sectional and correlational, thus, restricting our ability to infer causal inferences. As mentioned previously, our sample was fairly homogenous in that all families were exposed to high levels of sociodemographic risk and resided in a predominantly Latinx immigrant community. Thus, the conclusions we draw may not be generalizable to middle class Latinx families residing in the United States. Additionally, given that these data were collected during a specific period of time in which anxieties were high in connection with the rise in anti-immigrant sentiment, the findings may not be extrapolated to Latinx families in the United States in other times of history. Furthermore, although we initially included a measure of acculturation for our sample, the measure was difficult for the participants to understand and with the guidance of the *promotoras*, we excluded this measure from our overall study. As a result, we are unable to speak to the effects of acculturation within our sample.

Despite this study's shortcomings, it possesses many strengths. Namely, this study depicts a contribution to the literature of maternal and youth psychopathology by exploring sociodemographic and culturally-specific risk factors in a sample consisting entirely of low-

income Latinx families, an otherwise understudied population. Further, to our knowledge, our study is one of the first to employ linguistic analysis (LIWC, Pennebaker et al., 2003) in examining deportation fears within the contexts of one's mental representations of being a parent. This potentially provides additional insight to our understanding of parenting experiences for immigrants during a particularly turbulent period of time, thus, acknowledging a crucial area of concern for researchers and service providers to address. Finally, this study was conducted in collaboration with LHA- recruitment efforts were led by the *promotoras* and assessments were conducted at the agency. Participants experienced a level of trust with research staff and the research process which could not have been possible without the university-community partnership. We strongly believe this partnership was instrumental in enhancing the integrity of our data.

Future Directions

Future research should examine structural and environmental factors that create sociodemographic risk and may help to more directly explain outcomes. For instance, research suggests systemic marginalization (e.g., restrictive immigration policies, Eskenazi et al., 2019) and interpersonal discrimination may coincide with existing environmental risks to negatively affect Latinx youth's mental health and socioemotional development (Barragán et al., 2020; Romero, Martinez, & Carvajal, 2007; Yosso, Smith, Ceja, & Solórzano, 2009). Other prominent themes identified within the literature included increases in civic engagement as a response to anti-immigrant sentiment (Maginot, 2021; Viruell-Fuentes, 2007; Wray-Lake et al., 2018). As such, future studies should explore the role of civic engagement and/or sense of agency as potential buffers. Furthermore, prevention and intervention programs should look to promote agency and empower these communities.

Conclusion

Bearing in mind the recent growth of anti-immigrant sentiment, Latinx immigrants and their families are experiencing feelings of vulnerability and dejection as a result of the palpable threat of deportation and discrimination. As demonstrated in this study's findings, Latinx families reporting a higher frequency of fears related to deportation revealed increases in youth depression and aggression as well as maternal depression and anxiety. In addition, Latinx families are disproportionately affected by sociodemographic risk factors such as poverty, which presents a risk for mental health issues (Garcini, Peña et al., 2017). Many of the sociodemographic stressors these families already face also augment the potential for barriers to mental health care (Barragán, Yamada et al., 2020; Patler & Pirtle, 2018; Suárez-Orozco, 2017), these disparities are even greater among those with immigrant parents (Finno-Velasquez, Cardoso, Dettlaff, & Hurlburt, 2015; Gudiño et al., 2008 Sullivan & Rehm, 2005). Mental health disparities among the Latinx community have been linked to recent immigration enforcement and the ever-present threat of deportation (Lovato & Abrams, 2020). Latinx immigrants depict an at-risk population who are understandably wary of situations in which they must interact with authority figures (e.g., mental health service providers) due to fears of deportation or exploitation (Arbona et al., 2010). Thus, the current study's CBPR approach and collaboration with Latino Health Access was seminal in establishing rapport and trust within the community so that our participants felt secure and empowered in sharing their experiences. Our findings help to explicate the adverse consequences of anti-immigrant sentiment through the associations of deportation fear and psychopathology for Latinx youth and their immigrant parents, underscoring the importance of policy, rhetoric, and sociocultural shifts.

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Appendix

Table 1. Means and standard deviations for key study variables

	Y Sex	Y Age	Food Insec	Ed Attain	>3 Children	<Poverty	Single	Young M Age	Risk Composite
				Indicators comprising sociodemographic risk composite					
Mean/ %	1.47	12.81	35.30%	74.30%	64.50%	66.40%	53.30%	19.30%	.64
SD	0.55	1.73							.21
	Dep Fear	Y Dep	Y Anx	Y agg	M Dep	M Anx			
Mean/ %	0.24	5.18	4.66	6.34	0.00	0.00			
SD	0.17	4.50	3.19	4.57	0.99	0.99			

Note: Y Sex, youth sex (0 = male, 1 = female); <Poverty, % of mothers who earn less than poverty line in annual income; Young M Age, percentage of mothers who are younger than 21 at birth of target child; Y Age, youth age; Ed Attain, years of education attained; percentage of families falling into risk category provided for each variable comprising the sociodemographic risk composite. Sociodemographic Risk Composite score ranges from 0 to 1, with higher scores indicating greater risk. Dep Fear, average maternal fear of deportation; Y Dep, youth depression; Y Anx, youth anxiety; Y Agg, youth aggression; M Dep, mother depression; M Anx, mother anxiety.

Table 2. Correlations among key study variables

	1	2	3	4	5	6	7	8	9
1. Youth Sex	-								
2. Youth Age	.07	-							
3. Demographic Risk	-.01	.19*	-						
4. Deportation Fear	-.06	-.02	.04	-					
5. YSR- Depression	.02	-.13	-.00	-.01	-				
6. YSR- Anxiety	.14	-.15	-.09	.-.04	.63**	-			
7. YSR- Aggression	-.05	-.13	.09	-.05	.56**	.44**	-		
8. Maternal Dep	-.07	.02	-.07	.14	.12	.07	.03	-	
9. Maternal Anxiety	-.03	.03	.04	.09	.01	.00	.02	.66**	-

Note: Youth Sex, 0: male, 1: female; demographic risk scores (higher scores = greater risk); Deportation Fear, mother's fear of deportation: Average percentage of words used to describe fears of deportation (higher scores = greater fear); YSR- depression, youth depression; YSR- anxiety, youth anxiety; YSR- aggression, youth aggression; maternal depression, mother dep = mother depression; maternal anxiety, mother anxiety.
*$p < .05$; **$p < .01$.

Table 3. Custom comprehensive dictionary of deportation fear related words

<div align="center">

List of words

</div>

English	*Español* (Spanish)
take	*se llevaron*
scare	*espanto*
fear	*miedo*
separate	*Separado*
papers	*papeles*
raid	*redada*
ICE	*La Migra*
Trump	*El Trump*
unsafe	*inseguro*
worry	*preocupación*
country	*país*
police	*policia*
American Dream	*el sueño americano*
law	*ley*
president	*presidente*
detain	*detenido*
deport	*deportaron*
immigrant	*inmigrante*
immigration	*inmigración*
anxious	*inquieto/ ansioso*
afraid	*asustado*
status	*estatus migratoria*
government	*govierno*
Politics	*política*
politicians	*políticos*
nervous	*nervioso/a*
citizen	*ciudadano*

|	
arrive	*llegar*
border	*la frontera*
legal	*legal*
illegal	*illegal*
document	*documento*
undocumented	*indocumentado/a*
resident	*residente*
wall	*muro*
cayote	*cayote*
visa	*visa*
green card	*green card*
cross	*cruzar*
authorities	*las autoridades*
arrested	*arrestar*
jail	*carcel*
unwelcome	*mal acogido*
border patrol/ immigration authorities	*"La Migra"*
insecure	*insegura*
return	*regresar*
services	*servicios*
sick	*enfermo/a*
die	*morir*
dying	*muriendo*
INS	*abogado de inmigración*
refugees	*refugiados*
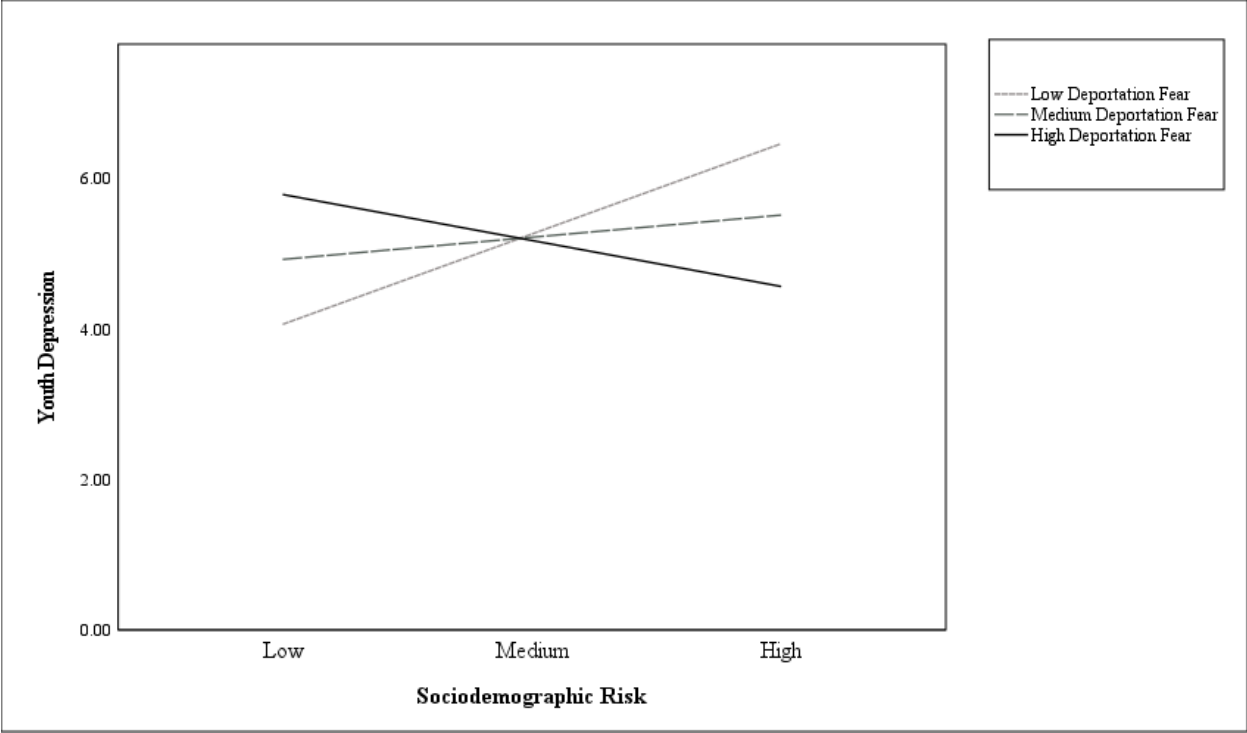
Figure 1. Sociodemographic risk and youth-reported depression: Deportation fear as a moderator of the association between sociodemographic risk and youth-reported depression.
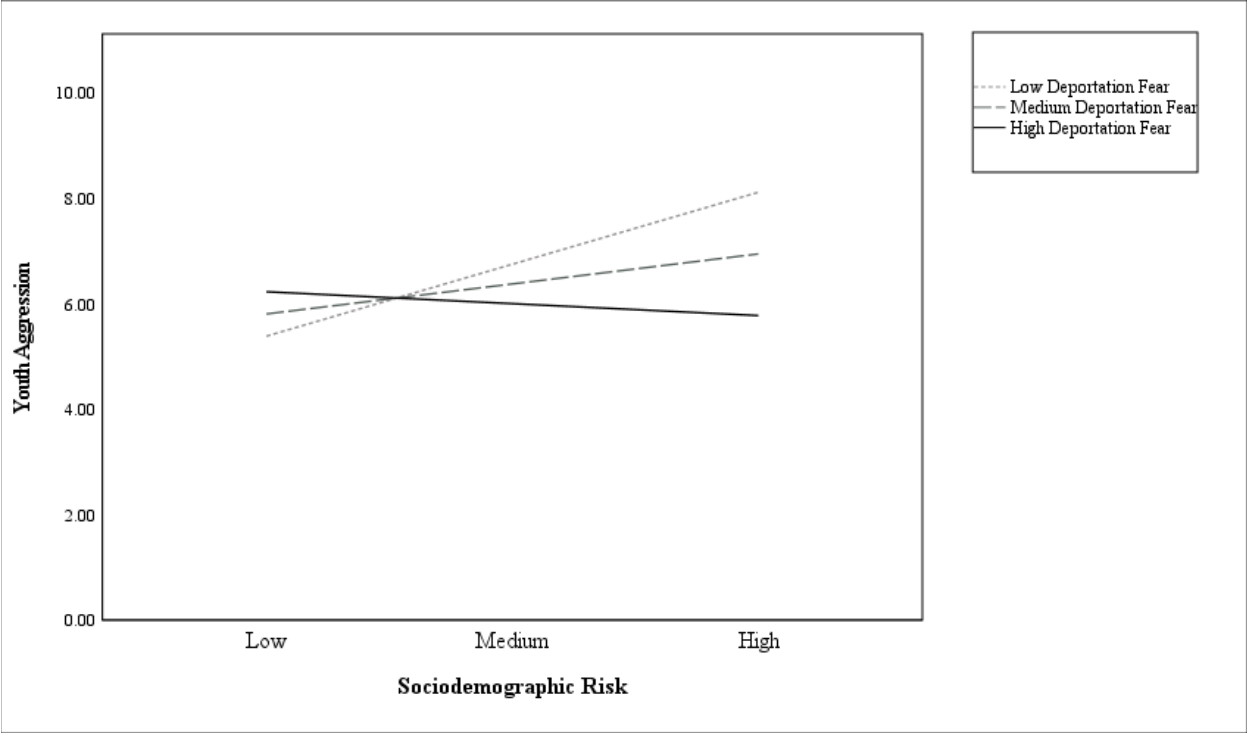
Figure 2. Sociodemographic risk and youth-reported aggression: Deportation fear as a moderator of the association between sociodemographic risk and youth-reported aggression.
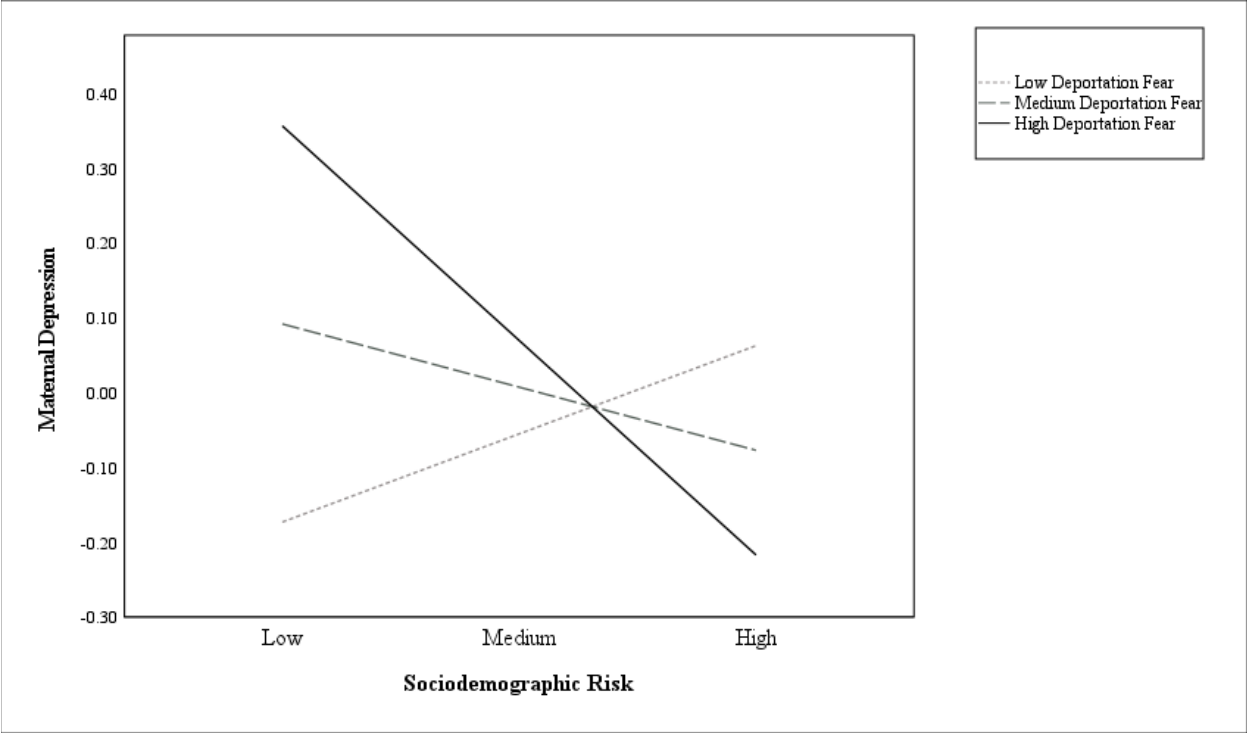
Figure 3. Sociodemographic risk and maternal depression: Deportation fear as a moderator of the association between sociodemographic risk and mother's depression.
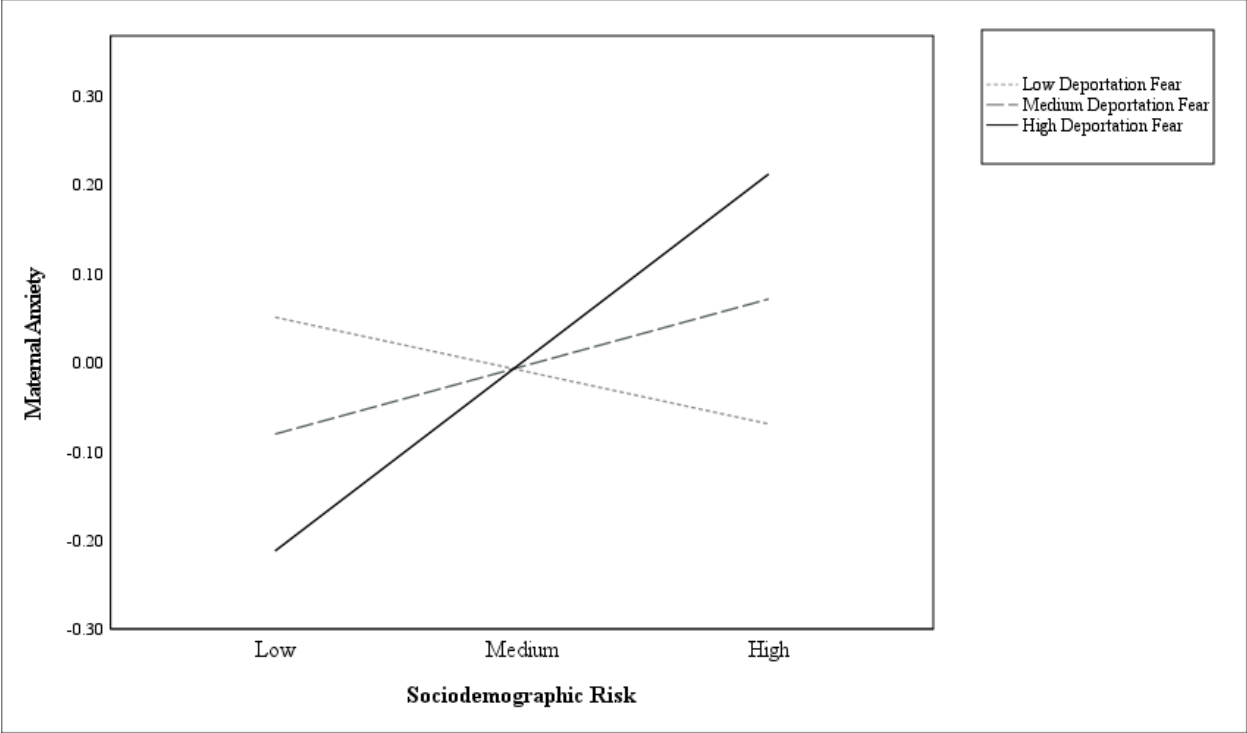
Figure 4. Sociodemographic risk and maternal anxiety: Deportation fear as a moderator of the association between sociodemographic risk and mother's anxiety.