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Immigration enforcement policies and the mental health of US-citizens: findings from a comparative analysis

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Abstract

We examined the differential impact of having a family member, friend, or co-worker/community member detained or deported on the mental health of US citizens. In 2019, a sample of 3,446 adult participants of White, Black, and Latinx racial/ethnic descent were recruited to complete an online questionnaire. Participants completed the Patient Health Questionnaire-4 to screen for anxiety, depression, and psychological distress. Analyses were restricted to US citizens ($n = 3,282$). Multivariable logistic and linear regressions were conducted to examine the mental health of US citizens who reported personally knowing a migrant who has been detained or deported and by their relationship to the migrant, overall and among Latinxs only. Among US citizens, 32% reported personally knowing someone who has been detained or deported. In multivariable analyses, US citizens who personally knew a detained or deported migrant were more likely to report anxiety, depression, and greater psychological distress. Associations were more pronounced among those who reported having a family member detained or deported. US-citizen Latinxs with social ties to migrants who have been detained or deported were especially more likely to report poor mental health than White and Latinx participants who did not personally know a migrant who has been detained or deported. It is critical that policy makers consider the potential mental health harms on migrants and it's own citizens when designing policies targeting migrant communities.

Keywords

Latinx; immigration enforcement policies; deportations; anxiety; depression; psychological distress

Detentions and deportations have become significant stressors for Latinx communities in the United States (US). Detentions and deportations have largely targeted Latinx migrants from Mexico (45–56%) and Central America (46%), namely El Salvador, Guatemala, and Honduras (Department of Homeland Security, 2020; Ryo & Peacock, 2018). Moreover, immigration arrests and deportations have increased fivefold in the past two decades, rising sharply under the Obama Administration, which largely targeted individuals with a criminal

background (Gans, Replogle, & Tichenor, 2012). However, it should be noted that although “criminal migrants” were the main targets for deportation, targeting of migrants with no violent or criminal histories also increased. Ultimately, more migrants with no criminal histories were deported during the Obama administration than migrants with criminal convictions (Gans et al., 2012). Under the Trump Administration, deportations have continued to increase, rising to 267,258 in 2019 and broadening their scope to individuals without a criminal background (Department of Homeland Security, 2020). In fact, the Trump administration has significantly targeted migrants by dramatically increasing immigration workplace raids (Pierce, 2019), terminating Temporary Protected Status of Salvadorians and Hondurans who will now become deportable (American Immigration Council, 2019), and beginning to arrest noncitizen spouses of US citizens who start the process of applying for permanent legal residency (Jawetz, 2020).

Effects of Detention and Deportation on Latinx Individuals

Increasing trends in detentions and deportations have been troubling to Latinx individuals, many of whom live in families with mixed immigration statuses. According to the American Immigration Council (2019), there are 16.7 million individuals in the US that have at least one family member without authorization to reside in the US living in the same household as them. Of these individuals, half are US citizens. Thus, when deportations aim to remove the estimated 11 million migrants of undocumented status, it also threatens the very well-being of millions of US citizens. Certainly, knowing someone who has been detained or deported may also affect non-Latinx communities in the US, but with the majority of detentions and deportations targeting Latinx individuals (Ryo & Peacock, 2018), Latinx communities are more likely to experience loss of family or social ties (Hatzenbuehler et al., 2017) (Hatzenbuehler et al., 2017) (Hatzenbuehler et al., 2017). Heightened detention and deportation threat against Latinx migrants has had negative mental health and physical health consequences on those who are legally vulnerable (Garcini et al., 2016; Garcini et al., 2017; Garcini, et al., 2018; Schwartz et al., 2014; Torres et al., 2018; Vargas et al., 2018). Recently, research has begun to document the harm of detentions and deportations on those who are not legally vulnerable, such as US-citizen Latinxs, although much of this research has focused on children (Allen, Cisneros, & Tellez, 2015; Gulbas et al., 2016; Rojas-Flores, Clements, Hwang Koo, & London, 2017; Zayas, Aguilar-Gaxiola, Yoon, & Rey, 2015). Rojas-Flores and colleagues found that US-citizen Latinx children who have been separated from a parent by detention or deportation have a higher likelihood of internalizing and externalizing symptoms, as well as post-traumatic stress disorder symptoms, than their counterparts whose parents are permanent residents or whose family has not had immigration encounters. Thus, detentions and deportations may not only harm the well-being of legally vulnerable migrants, but also of their “legally protected” US-born children.

In terms of how detentions and deportations affect the health of US-citizen adults, research has been more limited. Studies of Latinx adults who live in states with more restrictive immigration policies and enforcement practices, including detentions and deportations, or who perceive anti-immigration sentiments in their state of residence, report diminished optimal health and worse mental health than those living in more inclusive states towards migrants (Hatzenbuehler et al., 2017; Vargas, Sanchez, & Juarez, 2017). Although these

studies have not focused exclusively on US-citizen adults and on the effects of detentions and deportation, findings suggest that policies that increase threat and experiences of deportation may have detrimental effects on Latinx adults, regardless of their citizenship status.

In a study by Vargas and colleagues (2018), surveys with an adult sample of predominantly US-citizen Latinxs (77%) and legal permanent residents (14%), showed that nearly 40% of respondents reported knowing a migrant who had been deported. Of those who knew a migrant who had been deported, 35% indicated this person was a close family member. Notably, knowing a migrant who had been deported was associated with two-fold odds of reporting a mental health problem in the past 12 months. Their study, one of the first to document the effects of detentions and deportations on US Latinx adults, suggests that the effects of such immigration enforcement practices has cumulative effects on mental health overall and need for mental health services (Vargas et al., 2018). Other studies have documented adverse consequences among US-citizen adult Latinxs who have been impacted by the detention or deportation of family members and friends, including increased substance use and misuse (Pinedo, 2020a, 2020b), avoidance of health care systems (Vargas & Pirog, 2016), and poor developmental outcomes (Vargas & Benitez, 2019). Research that examines specific mental health conditions can shed light on the vulnerabilities that US-citizen adults face when they know migrants who have been detained or deported.

Purpose of the Present Study

Our study is among the first to use a large dataset to examine mental health outcomes among adult US citizens with ties to persons who have been detained or deported, with a special focus on Latinx individuals. We recognize that other racial/ethnic groups (e.g., people of White or Black racial/ethnic descent) may also have close relationships with migrants who have been detained or deported. However, there is no existing research on the mental health of non-Latinx populations relative to knowing someone who has been detained or deported. Therefore, this study will also examine how detentions and deportations relate to the mental health of US citizens, irrespective of their race/ethnicity.

The specific research questions this study aims to answer are: (1) is knowing someone who has been detained or deported associated with poor mental health outcomes? And (2) do associations between knowing someone who has been detained or deported and mental health outcomes vary by the social relationship (i.e., family, friend, community member) to the migrant? Hypotheses for this study are three-fold. First, we hypothesize that US citizens who personally know (vs. do not know) a migrant who has been detained or deported will be more likely to report poor mental health outcomes. Second, we hypothesize that associations between personally knowing (vs. not knowing) a migrant who has been detained or deported and mental health outcomes will vary by the social relationship (i.e., family, friend, community member) to the migrant. Third, we hypothesize that associations between knowing a detained and deported migrant, and the social relationship to the migrant, will be more pronounced among US citizen Latinxs when compared to other US citizen racial/ethnic groups and US citizen Latinxs who do not personally know a migrant who has been detained or deported. This study is important to show the unintended consequences of

detention and deportation on it's own citizens and has important implications for interventions aimed to mitigating stress.

Methods

Study Design and Participants

The present study used data from the National Social Policy Survey conducted by the University of New Mexico (UNM) Center for Social Policy. To be considered eligible for the study, participants had to be adults of White, Black, or Latinx racial/ethnic descent. From April to May 2019, potential participants were invited to complete an online survey through an email invitation. Email contact information was obtained from the national voter registration database. A non-registered voter sample was also recruited to reduce bias and to recruit non-US citizens using contact information obtained from online web-panels from Pure Spectrum and Cint. Web-panels are an emergent survey method technique that is sensitive to changes in communication behaviors in relation to decreased landline telephone use and increased preference for smartphones and web-based devices. Web-panels are comprised of individuals who have agreed to participate in online surveys. Through various recruitment techniques, and targeted invitations, web-panels aim to be representative of the general population. A list of contact information from these two sources was pooled together and then potential participants were randomly invited to participate in the study.

Potential participants were first directed to an online consent form before continuing to the survey. A total of 6,355 potential participants were invited to complete the survey. Of these, 5,734 (90%) were eligible and 3,446 (60%) completed the online survey. The online survey contained a total of 146 questions and took approximately 25 minutes to complete. The survey elicited data on diverse topics, including socio-demographics, political and public opinion, migration and deportation-related questions, and health-related questions, including mental health, among other topics. Mental health questions were asked towards the end of the questionnaire, well after migration and deportation related questions, thereby reducing ordered effects. The survey was provided in English and Spanish. The final dataset was then weighted within each racial/ethnic group to match the adult population in the 2017 Census American Community Survey (ACS) 1-year data file for age, gender, education, nativity, ancestry, and voter registration status. A post-stratification raking algorithm was used to balance each category within +/- 1 percent of the ACS estimates. The Institutional Review Board of the University of New Mexico approved all study protocols prior to commencing the study. The current study is based on analyses of the de-identified dataset and therefore the Institutional Review Board of the University of Texas at Austin required no review or oversight.

Measures

The three primary dependent variables for this study were: anxiety, depression, and psychological distress. These variables were measured using the Patient Health Questionnaire-4 (PHQ-4; (Löwe et al., 2010). The PHQ-4 is a four-item instrument that briefly and accurately measures anxiety and depression symptoms. Participants were asked to report how often they had been bothered by the following symptoms in the last 2 weeks:

(1) feeling nervous, anxious, or on edge; (2) not being able to stop or control worrying; (3) little interest of pleasure in doing things; and (4) feeling down, depressed, or hopeless. Response options include: (0) not at all; (1) several days; (2) more than half the days; (3) nearly every day. Total scores were summed with a total possible score of 12. A score of 3 or greater on items 1 and 2 refers to a positive screen for anxiety, while a sum of 3 or greater on items 3 and 4 refers to a positive screen for depression. Using these recommended thresholds, a dichotomous variable was created to characterize participants as having a positive screen for anxiety (yes vs. no) and depression (yes vs. no). Further, the PHQ-4 collectively measures psychological distress using all four items. A continuous variable was created for psychological distress using participants' total score; a higher score indicates greater psychological distress (score range: 0 – 12; Cronbach's alpha = .88).

The primary independent variables of interest were (1) personally knowing a migrant who has been detained or deported, and (2) their social relationship to the migrant (e.g., family, friend). Participants were asked, "Do you personally know someone that has been detained or deported for immigration reasons?" Those who answered 'yes' were then asked to report whether the migrant who was detained or deported was a (1) family member, (2) a friend, or a (3) co-worker or someone from the community. The survey only allowed for one response option. Further, given that Latinxs are disproportionately impacted by detentions and deportations, we also constructed a variable to characterize Latinxs according to their social relations with the migrant: those who (1) do not personally know a migrant who has detained or deported; (2) had a family member deported; (3) had a friend deported; and (4) had a co-worker or community member deported. The rationale for this variable is described under our analytic section.

Important control variables included socio-demographic characteristics, such as self-reported biological sex (male vs. female), age, nativity (US-born vs. foreign-born), marital status (married/living with someone vs. single/divorced/widowed), employment status (employed full/part-time vs. unemployed), educational attainment (less than high school, graduated high school, some college, or graduated college), and total family annual income (less than \$20,000; \$20,000 to \$39,999; \$40,000 to \$59,999; \$60,000 to \$79,999; \$80,000 to \$99,999; \$100,000 to \$140,999; or \$150,000 or more).

Analytic plan

All analyses were conducted using Stata v.15 software and weighted to adjust for the sampling methods. Given the objective of our study, all analyses were restricted to US citizens (n = 3,282) and non-citizens were excluded (n=164). First, we computed descriptive characteristics of our sample population stratifying by race/ethnicity. Following, we conducted multivariable logistic and linear regression models to examine how personally knowing someone who has been detained or deported, and participants' social relationship to the migrant (e.g., family member, friend), related to each mental health outcome while controlling for race/ethnicity and socio-demographic characteristics. Logistic regression models were employed to examine dichotomous outcomes (i.e., anxiety, depression), while a linear regression model was conducted to examine our continuous outcome (i.e., psychological distress). All models adjusted for socio-demographic characteristics.

Further, we tested the interaction between race/ethnicity and personally knowing a migrant who has been detained or deported. We also tested the interaction between race/ethnicity and the relationship to the migrant who had been detained or deported (i.e., family, friend, co-worker or community member) with each mental health outcome. All interactions were statistically significant among US-citizen Latinxs only (data not shown; available upon request), suggesting that US-citizen Latinxs were driving associations between the independent detention/deportation variables and mental health outcomes. Therefore, we also conducted stratified analyses for US-citizen Latinxs only. Additionally, we conducted sensitivity analyses to determine if US-citizen White and Black participants who personally knew a migrant who had been detained or deported influenced results from the multivariable models. We replicated all models only using US-citizen White and Black participants who did not personally know a detained or deported migrant (i.e., excluded those who did know a detained or deported migrant). Results remained largely the same as when analyses included all US-citizen White and Black participants (regardless of whether they knew someone who had been detained or deported or not). However, when US-citizen White and Black participants were stratified by their social relationships to migrants that have been detained or deported (i.e., family, friend, co-worker or community member) sample sizes were too small to conduct meaningful comparisons. Therefore, in our analyses that compared US-citizen Latinxs by their social relationships to migrants who have been detained or deported to US-citizen Whites and Blacks (see Table 3), the sample of US-citizen White and Black participants includes only those who reported not personally knowing a migrant who had been detained or deported.

Results

Sample characteristics of US-citizen study participants by race/ethnicity are displayed in Table 1. Overall, half the sample was male and married, with an average age of 41 years. The majority were US-born, employed, and had at least a high school education. Within the context of race/ethnicity, US-citizen Black and Latinx participants were less likely to be married, employed, and college educated than their White counterparts. Approximately 31% of all US-citizen participants reported personally knowing a detained or deported migrant. However, a higher proportion of US-citizen Latinxs (39%) reported personally knowing a migrant who had been detained or deported relative to US-citizen White (20%) and Black (25%) participants. The majority of detained/deported migrants were comprised of the participants' friends (42%), co-workers or community members (32%), and family members (26%). Within the context of mental health, a little over a quarter of US-citizen participants screened positive for anxiety and depression, and reported a mean psychological distress score of 3.30. US-citizen Latinxs were more likely to report higher psychological distress than their US-citizen White and Black counterparts.

Table 2 presents findings from the multivariable logistic and linear regression models. Model 1 findings suggest that when controlling for race/ethnicity and socio-demographic characteristics, personally knowing a detained or deported migrant was associated with a positive screen for anxiety (Adjusted Odds Ratio (AOR): 1.88; 95% Confidence Interval (CI): 1.57–2.27; $F(18, 3423) = 11.03, p .001.$), depression (AOR: 2.45; 95% CI: 2.02–2.96; $F(18, 3423) = 12.57, p .001.$), and greater psychological distress ($b=1.38$; 95% CI: 1.11–

1.66; $F(17, 3429) = 29.18, p .001$.) among US citizens. Examining associations by social relationships to the migrant who had been detained or deported (Model 2), having a family member, friend, or co-worker or community member detained or deported were all positively associated with poor mental health outcomes. Notably, US-citizen participants who reported having a family member detained or deported had more than twice the odds (AOR: 2.42; 95% CI: 1.79–3.29; $F(20, 3421) = 10.10, p .001$) and three times the odds (AOR: 3.50; 95% CI: 2.60–4.73; $F(20, 3421) = 11.91, p .001$) of screening positive for anxiety and depression, respectively. Having a family member deported was also associated with greater psychological distress ($b=2.10$; 95% CI: 1.11 – 1.66; $F(21, 3425) = 24.52, p .001$).

Table 3 displays results from the multivariate models comparing US-citizen Latinxs by their social relationships with the migrant who had been detained or deported to US-citizen White and Black participants who did not personally know a migrant who had been detained or deported. Findings suggest that compared to US-citizen White participants, US-citizen Latinxs who had a family member detained or deported had significantly higher odds of screening positive for anxiety (AOR: 2.20; 95% CI: 1.44–3.36; $F(20, 3099) = 8.85, p .001$) and depression (AOR: 3.31; 95% CI: 2.16–5.08; $F(20, 3099) = 9.95, p .001$), respectively. Having a family member detained or deported was also associated with greater psychological distress among US-citizen Latinxs when compared to US-citizen White participants ($b=1.90$; 95% CI: 1.28–2.52; $F(20, 3099) = 20.89, p .001$). US-citizen Latinxs who had a friend detained or deported were also more likely to report poor mental health status across all outcomes, while US-citizen Latinxs who knew a co-worker or community member who had been detained or deported were more likely to report depression and greater psychological distress, relative to US-citizen White participants. Notably, US-citizen Latinxs who did not personally know a migrant who had been detained or deported were not any more likely to report anxiety, depression, or greater psychological distressed than US-citizen White participants.

When models were restricted to US-citizen Latinxs only (Table 4), associations between having a family member, friend, or co-worker/community member detained or deported and mental health outcomes retained significance. US-citizen Latinxs with a detained or deported family member had more than twice the adjusted odds of screening positive for anxiety (AOR: 2.09; 95% CI: 1.42–3.07; $F(18, 3421) = 6.70, p .001$) and depression (AOR: 2.86; 95% CI: 1.95–4.18; $F(18, 3421) = 7.43, p .001$), respectively, relative to US-citizen Latinxs who did not personally know a migrant who had been detained or deported. Having a family member detained or deported was also associated with greater psychological distress ($b=1.75$; 95% CI: 1.16–2.34; $F(18, 3425) = 7.43, p .001$). Having a friend detained or deported was associated with anxiety, depression, and psychological distress. Knowing a co-worker or community member who had been detained or deported was associated with depression and psychological distress.

Discussion

This study examined the association between personally knowing someone who has been detained or deported and mental health outcomes among US-citizen adults. Overall, we

found that the deportation of migrants may influence the mental health status of US citizens and especially that of US-citizen Latinxs. In our sample, 32% of US citizens reported personally knowing a migrant who had been detained or deported; among those who personally knew a migrant who had been detained or deported, 70% were US-citizen Latinxs. These statistics illustrate how highly connected US-citizens, and namely Latinxs, are to migrant communities and as such, highlighting the importance of studying the impacts of detentions and deportations at the family- and community-level. Results add to the growing empirical base of research suggesting that immigration control policies may be having spillover effects on the physical and mental health of US citizens, especially Latinxs (Hatzenbuehler et al., 2017; Lopez et al., 2017; Vargas, Juárez, Sanchez, & Livaudais, 2018; Vargas et al., 2017; Zayas et al., 2015). Following we discuss our results in greater detail and their implications.

Aligned with our first hypothesis, we found that personally knowing a migrant who had been detained or deported was associated with poor mental health status among US citizens, regardless of race/ethnicity. Those who reported personally knowing (vs. not knowing) someone who had been detained or deported were more likely to report anxiety, depression, and greater psychological distress. These associations varied by participants' social relationships to the migrant—supporting our second hypothesis. Results particularly emphasize the association between family detention/deportation and mental health status. US citizens who had a family member detained or deported were considerably more likely to report experiencing anxiety, depression, and more severe psychological distress. We also found that other social ties (i.e., friends, co-workers, community members) to migrants who have been detained/deported, aside from family members, were associated with poor mental health status among US citizens, irrespective of race/ethnicity.

To test our third hypothesis, we examined the interaction between race/ethnicity and personally knowing someone who had been detained or deported on mental health variables. All interactions were statistically significant among US-citizen Latinxs only, suggesting that US-citizen Latinxs were driving the aforementioned associations and confirming our third hypothesis. Specifically, when compared to US-citizen White participants (who did not personally know a detained a deported migrant), US-citizen Latinxs who had a family member, friend, or co-worker/community member detained or deported were increasingly more likely to report poor mental health status. We found a similar pattern of results in US-citizen Latinxs only models when comparing US-citizen Latinxs who knew someone who had been detained or deported relative US-citizen Latinxs who did not personally know someone who had been detained or deported. Namely, having a family member detained or deported was significantly associated with poor mental health status among US-citizens Latinxs (regardless of comparison group). The detention and/or deportation of a family member can be a traumatic experience filled with great uncertainty and extreme fear and worry over the family members' and family units' well-being (K. M. Brabeck, Lykes, & Hunter, 2014; Capps, 2007; Gulbas et al., 2016; Koball et al., 2015; Zayas et al., 2015). Research with US-citizen children of Latinxs migrant parents has found that children report multiple emotional stressors following the deportation of a parent, including symptoms of anxiety and depression (Allen et al., 2015; K. Brabeck & Xu, 2010; Gulbas et al., 2016; Rojas-Flores et al., 2017; Szkupinski Quiroga, Medina, & Glick, 2014; Zayas et al., 2015).

Our findings extend this work by showing that US-citizen adults, and in particular US-citizen Latinxs, may also experience poor mental health consequences following the detention or deportation of a family member. However, a limitation of our study is that we lacked data on when the deportation of the family member occurred—if it was during childhood or as an adult. Future research should consider examining the long-term consequences of the deportation of family members, in childhood and adulthood, on the mental health of US-citizen Latinxs, an area that is highly understudied.

Additionally, we also found that having a friend, co-worker, or community member detained or deported was associated poor mental health among US-citizen Latinxs (regardless of comparison group; see Table 3 &4). The only exception being that having a co-worker or community member detained or deported was unrelated to anxiety. These findings suggest that even US-citizens Latinxs who have not experienced the deportation of a family member may still be impacted by the deportation of someone close to them. Other studies have found that among Latinxs, knowing someone who has been deported, regardless of the relationship to the migrant (e.g., family, friend, community member), is linked to overall poor quality of mental health ((Vargas et al., 2018). We also found that US-citizens Latinxs with no close social ties to migrants who have been detained or deported were not any more likely than US-citizen White participants to report negative mental health outcomes. This finding suggest that as a subgroup of US-citizen Latinxs, US-citizen Latinxs with ties to migrants who have been detained or deported may be experiencing additional or heightened stressors that contribute to their poor mental health status. Minority stress may contribute to this phenomenon (Morey, 2018), although stress may also stem from losses to social and human capital (Enriquez, 2015; McGuire, 2014; Valdez, Padilla, & Lewis Valentine, 2013). Ultimately, it may be that stressors stemming from the deportation of migrants within US-citizen Latinxs' social ties may differentiate the mental health of these two groups.

Limitations

Some limitations should be considered when interpreting our findings. The cross-sectional study design hinders our ability to make causal inferences. Participants were also recruited online and thus sampling bias may be present. As previously mentioned, we lacked contextual data on the detention or deportation of migrants (e.g., when did the event occur, how old was the participant, which family member was detained/deported) and on mechanisms of influence. Further, the survey only allowed participants to choose one social relationship in relation to the detained or deported migrant (i.e., family, friend, co-worker or community member) and they were not asked how many migrants they personally knew who had been detained or deported. We can speculate that participants most likely responded according to their strongest relationship, meaning those who personally knew a co-worker and a family member who had been deported chose 'family' as their response—however, we cannot confirm this. Knowing how many migrants a person knows who have been detained or deported is valuable information given that prior research has shown that as the number of deported migrants a Latinx person knows, the probability of reporting poor mental health increases (Vargas et al., 2018).

Further, although a number of participants identified as non-citizens but of legal status (i.e., legal permanent resident, visa holder), these subgroups were too small to allow for meaningful comparisons. The aforementioned data would have aided in the interpretation of our findings. Lastly, our sample did not include Asian Americans, which is important given that migration from Asia has grown exponentially and are projected to be the largest migrant group in the US by 2055 (Radford, 2019). Future research should use network analysis to better understand the number of relationship losses to detention and deportation, the proximity of those cumulative losses, the quality of those relationships, and consider the role of legal immigration status among Latinxs and other populations with large representations of migrants, such as Asian Americans. Notwithstanding these limitations, our study provides novel findings using recent data that suggest that the enforcement of detentions and deportations may play a critical role on the mental health of US citizens and namely US-citizen Latinxs.

Conclusion and Policy Implications

In the US, 79% of all Latinxs are US citizens and are the largest migrant group (Noe-Bustamante, 2019). Immigration enforcement of detentions and deportations has a much broader impact than simply on the migrant individual. In addition to mental health impacts on migrants (Cavazos-Rehg et al., 2007), our study highlights that US citizens may also be impacted by detentions and deportations. A significant proportion of US-citizen Latinxs have substantial relationships with migrants (documented and undocumented). Studies using national data find that 40% of US-citizen Latinxs have a personal relationship with someone who is an undocumented migrant (Vargas et al., 2018). Further, our study finds that 32% of US citizens, and 39% of US-citizen Latinxs, personally know someone who has been detained or deported.

Worry over the well-being of loved ones that are migrants, as a result of increased immigration control efforts, may potentially cause severe harm to Latinxs' mental health, notwithstanding citizenship status. It is important that policy makers consider the potential harms on both migrants (documented and undocumented) and their own citizens when designing policies targeting migrant communities. For example, re-considering 'deportable' offenses, which have been expanded in recent years and resulted in migrants being deported for innocuous offenses (e.g., traffic violation) deemed 'criminal.' Such policies may cause more harm to individuals and communities than protect society. On this note, it is urgent that policy makers instead move towards comprehensive immigration reform that includes a pathway for undocumented migrants to become citizens. Most Latinx migrants in the US are long-term migrants who have resided in the country for more 20 years, including a substantial proportion that were brought to the US by their migrant parents as children (Noe-Bustamante, 2019). Without a legal pathway to citizenship, Latinx migrants and their family members face the daily fear and reality of deportation and family separation. Thus, immigration reform can potentially have positive mental health implications by eliminating migration-related stressors and contribute to fewer deportations. Finally, at the minimum, when a migrant is detained or deported, free mental health services should be provided to the migrant and their family members. This will require tailored services specifically designed to address unintended emotional and psychological consequences of detentions and

deportations to prevent poor mental health status and related harms (e.g., alcohol and drug abuse) among migrants and US citizens.

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Highlights

- Personally knowing a detained or deported migrant is associated with poor mental health among US citizens
- Having a family member deported is strongly associated with poor mental health among US citizens
- US-citizen Latinxs who had a family member deported report worse mental health outcomes than Whites
- Latinxs who do not personally know a deported migrant are not any more likely to report poor mental health than Whites

Table 1.

Sample characteristics of US-citizen adult participants by race/ethnicity, weighted % (unweighted n), n=3,282, 2019.

Variable	Total (n=3,446)	White (n=712)	Black (n=710)	Latinos (n=2,024)	P-value
<i>Socio-demographics</i>					
Mean age (SD)	42(16.57)	48(16.74)	41(16.33)	39(15.85)	<0.001
Male	49%(1,368)	49%(405)	47%(268)	50%(695)	0.45
US-born	87%(3,107)	98%(700)	95%(691)	80%(1,716)	<0.001
Married	39%(1,219)	58%(411)	36%(252)	50%(1,537)	<0.001
Employed	60%(1,956)	73%(520)	54%(378)	58%(1,058)	<0.001
Educational attainment					
Less than high school	9%(200)	4%(17)	8%(39)	11%(144)	<0.001
Graduated high school	28%(944)	27%(193)	25%(179)	29%(572)	
Some college	31%(1,067)	27%(195)	35%(256)	31%(616)	
Graduate college	33%(1,071)	42%(303)	32%(232)	29%(536)	
Total Family Income					
Less than \$20,000	13%(442)	13%(86)	17%(116)	13%(240)	<0.001
\$20,000 – \$39,999	24%(813)	23%(155)	28%(196)	23%(462)	
\$40,000 – \$59,999	22%(714)	19%(140)	22%(154)	23%(420)	
\$60,000 – \$79,999	16%(520)	20%(144)	14%(103)	14%(273)	
\$80,000 – \$99,999	8%(266)	9%(62)	5%(38)	9%(273)	
\$100,000 – \$140,999	8%(264)	10%(77)	7%(74)	8%(137)	
\$150,00 or more	4%(141)	5%(35)	5%(32)	4%(74)	
Personally knows someone who has been detained or deported	31% (1061)	4% (143)	5% (177)	23% (741)	<0.001
Relationship with the detained or deported migrant ^a					
Had a family member detained or deported	26% (283)	3% (30)	5% (56)	18% (197)	<0.001
Had a friend detained or deported	41% (436)	5% (50)	6% (68)	31% (318)	
Had a co-worker or community member detained or deported	32% (342)	6% (63)	4% (53)	22% (226)	
Anxiety	28% (962)	25% (176)	26% (186)	28% (600)	0.129
Depression	27% (905)	23% (163)	25% (176)	29% (566)	0.107
Psychological distress (SD)	3.30(3.41)	3.0 (3.31)	3.11(3.60)	3.47(3.38)	0.001

^aAmong participants who reported personally knowing a detained or deported migrant, n=1,061

Table 2.

Weighted multivariable models of anxiety, depression, and psychological distress among US-citizen participants, unweighted n=3,277, 2019.

Variable	Anxiety		Depression		Psychological distress		
	AOR	95% CI	AOR	95% CI	β	SE	95% CI
Race/ethnicity							
White	-	-	-	-	-	-	-
Black	.85	.65-1.10	.82	.63-1.06			
Latinx	.93	.75-1.17	.89	.71-1.13			
Male	.81*	.68-.96	1.03	.86-1.23	-.40**	.12	-.64 - -.16
Age	.98***	.97-.99	.98***	.97-.99	-.03***	.004	-.04 - -.03
US-born	1.89**	1.22-2.91	1.19	.80-1.78	.71**	.24	.24 - 1.
Married	.97	.80-1.18	.98	.80-1.12	-.16	.14	-.43 - .11
Employed	.93	.77-1.12	1.03	.85-1.25	-.23	.13	-.50 - .03
Educational attainment							
Less than high school (ref)	-	-	-	-	-	-	-
Graduated high school	1.07	.72-1.57	.76	.52-1.13	-.21	.32	-.84 - .42
Some college	1.05	.71-1.55	.83	.56-1.23	-.25	.32	-.89 - .39
Graduate college	.93	.77-1.12	.60*	.40-.90	-.47	.33	-1.12 - .17
Total Family Income							
Less than \$20,000 (ref)	-	-	-	-	-	-	-
\$20,000 - \$39,999	.92	.69-1.23	.74*	.55-1.00	-.42	.24	-.88 - .04
\$40,000 - \$59,999	.74*	.54-.99	.69*	.49-.91	-.76**	.23	-1.22 - -.30
\$60,000 - \$79,999	.76	.55-1.05	.50***	.36-.72	-.85**	.25	-1.34 - -.36
\$80,000 - \$99,999	.51**	.34-.77	.32***	.20-.50	-1.42***	.27	-1.95 - -.89
\$100,000 - \$140,999	.73	.48-1.11	.41***	.26-.64	-1.10***	.28	-1.66 - -.55
\$150,000 or more	.64	.38-1.06	.59*	.36-.99	-.86*	.41	-1.65 - -.56
Model I²							

Variable	Anxiety		Depression		Psychological distress	
	AOR	95% CI	AOR	95% CI	β	SE
Personally knows a detained/deported migrant	1.88***	1.57-2.27	2.45***	2.02-2.96	1.38***	.13
Model 2^b						
Relationship with detained or deported migrant						
Does not personally know a detained or deported migrant (ref)						
Family member was deported	2.42***	1.79-3.29	3.50***	2.60-4.73	2.10***	.19
Friend was deported	1.86***	1.45-2.39	2.30***	1.78-2.96	1.16***	.22
Co-worker or community member was deported	1.56**	1.18-2.07	1.98***	1.49-2.26	1.09***	.50

* p <0.05.

** p <0.01.

*** p <0.001.

^aModel 1 includes all socio-demographic characteristics, excluding variables from Model 2.

^bModel 2 includes all socio-demographic variables, excluding variables from Model 1.

Weighted multivariate logistic and linear logistic regression models of mental health outcomes among US citizen adults, unweighted n=3,119, 2019.

Table 3.

Variable	Anxiety		Depression		Psychological distress		
	AOR	95% CI	AOR	95% CI	β	SE	95% CI
Race/ethnicity ^d							
White (ref)	-	-	-	-	-	-	-
Black	.85	.62-1.16	.77	.55-1.07	-.45*	.19	-.83--.08
Latinx who do not personally know a detainee or deportee	1.07	.82-1.41	1.18	.88-1.57	.18	.17	-.16-.52
Latinx who had a family member detained or deported	2.20***	1.44-3.36	3.31***	2.16-5.08	1.90***	.31	1.28-2.52
Latinx who had a friend detained or deported	1.70**	1.19-2.43	1.93***	1.35-2.77	.93***	.24	.45-1.42
Latinx who had a co-worker or community member detained or deported	1.49	.98-2.27	1.81**	1.18-2.76	.99**	.29	.41-1.56
Male	.79*	.66-.96	1.00	.82-1.22	-.46***	.12	-.71--.22
Age	.97***	.97-.98	.98***	.97-0.99	-.03***	.00	-.04--.02
US-born	1.87**	1.20-2.90	1.15	.76-1.74	.73**	.24	.25-1.20
Married	.97	.79-1.20	.95	.76-1.18	-.22	.14	-.50-.05
Employed	.89	.73-1.08	1.00	.81-1.23	-.26	.14	-.53-.01
Educational attainment							
Less than high school (ref)	-	-	-	-	-	-	-
Graduated high school	1.02	.68-1.52	.73	.49-1.09	-.25	.33	-.90-.39
Some college	.96	.64-1.44	.81	.54-1.22	-.31	.33	-.97-.33
Graduate college	.86	.57-1.31	.59*	.38-.90	-.53	.34	-1.20-.13
Total Family Income							
Less than \$20,000 (ref)	-	-	-	-	-	-	-
\$20,000 - \$39,999	1.01	.74-1.37	.79	.57-1.08	-.26	.24	-.74-.21
\$40,000 - \$59,999	.76	.55-1.05	.67*	.48-.94	-.67**	.24	-1.15--.20
\$60,000 - \$79,999	.78	.55-1.11	.46***	.31-.68	-.81**	.25	-1.32--.31
\$80,000 - \$99,999	.49**	.31-0.77	.30***	.18-.49	-1.42***	.28	-1.97--.87

Variable	Anxiety		Depression		Psychological distress		
	AOR	95% CI	AOR	95% CI	β	SE	95% CI
\$100,000 – \$149,999	.75	.47–1.20	.37***	.22–.62	-1.06***	.29	-1.63–-.49
\$150,000 or more	.54*	.31–.96	.46*	.26–.84	-1.06**	.39	-1.83–-.28

* p < 0.05.

** p < 0.01.

*** p < 0.001.

^aThe sample of White and Black participants only include those who did not personally know a migrant who had been detained or deported

Table 4. Weighted multivariate logistic and linear logistic regression models of mental health outcomes among US-citizen adult Latinxs only, unweighted n=1,864, 2019.

Variable	Anxiety		Depression		Psychological distress		
	AOR	95% CI	AOR	95% CI	β	SE	95% CI
Social relationships with a detained or deported migrant							
Do not personally know a detainee or deportee (ref)	-	-	-	-	-	-	-
Had a family member detained or deported	2.09***	1.42-3.07	2.86***	1.95-4.18	1.75***	.39	1.16-2.34
Had a friend detained or deported	1.60**	1.18-2.17	1.64**	1.20-2.23	.75***	.22	.32-1.18
Had a co-worker or community member detained or deported	1.42	.99-2.04	1.54*	1.06-2.24	.83**	.27	.30-1.36
Male	.77*	.61-.98	1.00	.79-1.28	-.47**	.17	-.80--.14
Age	.98**	.98-.99	.98**	.97-.99	-.03***	.01	-.04--.02
US-born	2.07**	1.29-3.31	1.09	.71-1.69	.72**	.27	.19-1.25
Married	.95	.73-1.21	1.08	.82-1.41	-.23	.18	-.59-.13
Employed	.87	.69-1.11	1.04	.81-1.34	-.16	.18	-.51-.18
Educational attainment							
Less than high school (ref)	-	-	-	-	-	-	-
Graduated high school	.99	.62-1.58	.82	.52-1.30	-.26	.40	-1.04-.52
Some college	1.03	.65-1.65	.91	.57-1.44	-.13	.40	-.91-.66
Graduate college	.95	.58-1.56	.64	.39-1.04	-.39	.41	-1.21-.42
Total Family Income							
Less than \$20,000 (ref)	-	-	-	-	-	-	-
\$20,000 - \$39,999	1.01	.69-1.50	.87	.58-1.32	-.22	.34	-.89-.45
\$40,000 - \$59,999	.74	.49-1.11	.72	.47-1.10	-.75**	.33	-1.85--.10
\$60,000 - \$79,999	.69	.44-1.07	.44**	.27-.71	-1.16***	.35	-1.85--.47
\$80,000 - \$99,999	.38**	.21-.67	.26***	.14-.47	-.187	.36	-2.57-1.16
\$100,000 - \$140,999	.74	.41-1.32	.33**	.17-.61	-1.24**	.39	-2.01--.46
\$150,000 or more	.64	.32-1.26	.49*	.24-.99	-1.16*	.53	-2.21-1.12