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Familias Divididas [Divided Families]: Transnational Family Separation and Undocumented Latinx Immigrant Health

Thania Galvan[1,2], **Dana Rusch**[1], **Melanie M. Domenech Rodríguez**[3], **Luz M. Garcini**[4,5]

[1]Department of Psychiatry, Institute for Juvenile Research, University of Illinois at Chicago

[2]Department of Psychiatry, National Crime Victims Treatment and Research Center, Medical University of South Carolina

[3]Department of Psychology, Utah State University

[4]Center for Research to Advance Community Health, Joe R. and Teresa Lozano Long School of Medicine, The University of Texas Health Science Center at San Antonio

[5]Department of Medicine, Joe R. and Teresa Lozano Long School of Medicine, The University of Texas Health Science Center at San Antonio

Abstract

Undocumented Latinx immigrants (ULIs) comprise a large segment of the U.S. population, yet they remain at high risk for diminished health outcomes due to increased exposure to adverse experiences and context. Transnational family separation and the distress that accompanies it is an example of a common adverse experience that is chronic and that impacts the lives of many ULIs. However, despite how chronic and central transnationalism is to the lives of ULIs, little is known about its relation to the health outcomes of ULIs. To that end, this study examined the relation between distress due to transnational family separation and the physical and mental health of ULIs. To do so, the study utilized respondent-driven sampling and path analysis methodologies to cross-sectionally examine how distress from transnational separation was related to the physical and mental health of ULIs (n = 229). Results revealed that as distress from transnational family separation increased so too did participant's depressive (β = .25, p < .001), anxiety (β = .18, p = .006), and physical symptoms (β = .24, p < .0001). Distress from transnational family separation was also more strongly related to physical and depressive symptoms than to anxiety symptoms. Considering these results, important systemic changes to our approach to healthcare delivery and access among ULIs communities are needed to promote the well-being of this at-risk population. Recommendations for doing so are discussed.

Correspondence concerning this article should be addressed to Thania Galvan, Department of Psychiatry, National Crime Victims Treatment and Research Center, Medical University of South Carolina, 67 President Street, Suite 1200, Charleston, SC 29425, United States. thgalvan@gmail.com.

The authors confirm that this article nor its ideas have been published or presented elsewhere. We also confirm that it is not under consideration for publication elsewhere.

Because data analysis of the primary outcomes of this larger study is ongoing, neither the data, study materials, nor the study analysis code is publicly available. This study was not preregistered.

All authors confirmed that they have reviewed the article and approve of the article being submitted to the Journal of Family Psychology for consideration.

Keywords

health disparities; undocumented; latinx; mental health; physical health

Recent estimates using advanced demographic modeling suggest that as many as 22.1 million undocumented immigrants live in the United States (U.S.), with at least 77% of these immigrants identifying as Latinx (Fazel-Zarandi et al., 2018; Passel & Cohn, 2019). Until recently, this sizeable yet vulnerable population had remained largely understudied. Increased recognition of this population's size and economic impact has spurred a relative increase in research attempts to better understand the well-being of undocumented Latinx immigrants (ULIs) and their families (Young & Madrigal, 2017). Research shows ULIs and their families are at increased risk for diminished health outcomes due to social and political marginalization, and that this marginalization results in increased exposure to adverse experiences and contexts (e.g., Derose et al., 2007; Galvan et al., 2021). However, much of the existing literature remains descriptive in nature and has failed to examine potential predictors of diminished health among ULIs. A deeper understanding of the factors that contribute to increased health risk in this population is needed to inform targeted efforts for promoting the well-being of this marginalized community.

Transnational Family Separation

Family separation is part of transnationalism, which is a social phenomenon with deep sociopolitical roots that has been critical to the study of migration across the social sciences (Waldinger, 2013). Transnational family separation occurs when individuals who migrate to a new country leave family behind in their country of origin—often maintaining enduring emotional and/or economic ties to those family members (Alcántara et al., 2015). Examples of transnational family separation include parent(s) leaving children behind, and individuals leaving spouses, parents, or siblings behind. Separations typically occur in a stepwise pattern (i.e., separations at each migration wave), are protracted in nature, and are complex in terms of their relation to kinship networks (Cervantes et al., 2010).

Unfortunately, transnational family separation is a common experience among ULIs with impacts beginning in the initial stages of the migration journey and continuing long after they have established a life in the U.S. (Gubernskaya & Dreby, 2017). Indeed, prior to immigration, ULIs are tasked with the difficult decision of balancing the "push" (e.g., violence in country of origin) and "pull" (e.g., perceptions of improved economic opportunities) factors that motivate the migration journey with the reality of having to leave their familiar surroundings and family behind (Dreby, 2015; National Immigration Forum, 2019). For parents, this decision may be further complicated by the need to leave children behind without knowing when or if they may be reunified (Dreby, 2015). Transnational family-separation-related difficulties continue for many ULIs into the postmigration phase. For example, ULIs' need to fulfill economic obligations to family back home can result in increased stress as they balance these obligations with employment precarity and limited financial resources (Afulani et al., 2016; Arbona et al., 2010). The combination of the aforementioned difficulties often results in an ongoing cost-benefit analysis that can be

psychologically taxing on ULIs as they attempt to navigate and adjust to transnational life (Zentgraf & Stoltz Chinchilla, 2012).

Though transnational family separation is not unique to ULIs, the hardships associated with this form of separation are particularly pronounced for ULIs as restrictive U.S. immigration policies limit their ability to be reunited with family members in their country of origin (Enchautegui & Menjivar, 2015). The dynamic nature of these policies, especially in recent years, not only exacerbates the difficulties that already accompany transnational family separation but also ensures that such difficulties endure long after ULI's initial migration to the U.S. (Enchautegui & Menjivar, 2015). Further, the discrepancy between undocumented immigrants' aspirations for life postimmigration and the limitations placed on their ability to achieve these aspirations as a result of their legal status is tied to low satisfaction with life in their destination country (Burton-Jeangros et al., 2021). Indeed, transnational family separation has been identified as one of the biggest stressors in the lives of ULIs and, as such, is likely to be a significant predictor of their health status (Magaña & Hovey, 2003).

Transnational Family Separation and Health

Much remains to be learned about the relation between transnational family separation and health outcomes among ULIs. The literature on transnational family separation in other immigrant populations and the broader Latinx immigrant population provides a helpful starting point. For example, among migrants from African countries, transnational family separation has been consistently associated with diminished well-being including poor mental health and an increased incidence of chronic physical health conditions (Afulani et al., 2016; Haagsman et al., 2015). Among the broader Latinx immigrant population, transnational family separation has been linked to decreased mental health and too risky behaviors known to negatively impact physical health (e.g., drug and abuse, risky sexual behaviors; Gonzalez et al., 2017; Letiecq et al., 2014; Parrado et al., 2004). In both aforementioned populations, these relations are particularly pronounced for migrant parents who have children in their country of origin (e.g., Afulani et al., 2016; Rusch & Reyes, 2012). Only one known study has explored the impact of transnational family separation on ULI's well-being. This study found that the death of a family member in the country of origin was related to increased psychological distress among ULIs (Garcini et al., 2020). Continuing to understand how transnational family separation impacts the physical and mental health of ULIs is of public health importance as this understanding may reduce morbidity and ameliorate health disparities in this population.

Theoretical Understanding of Transnational Family Separation and Health

To be able to effectively translate the aforementioned research into actionable practice and policy recommendations, one must first understand the drivers underlying these relations. One likely driver of the relation between transnational family separation and the well-being of ULIs is the distress that comes from experiencing transnational family separation. Indeed, we know that exposure to a stressor does not necessarily equate to diminished physical and/or mental health, but rather that it is the perception of that stressor as distressing that is predictive of health outcomes (Center for Substance Abuse Treatment, 2014; Keller et al.,

2012). For definitional purposes, distress is the aversive physiological and/or psychological consequences that occur when the coping processes that were employed to help an individual manage their response to a stressor are ineffective or overwhelmed (National Research Council, 2008).

The Social Stress Theory framework (Pearlin, 1989) informs our understanding of how distress, transnational family separation, and health may be related in ULIs. This theoretical framework suggests that individuals with disadvantaged social status are at great risk for poor health outcomes because their social standing limits their ability to effectively cope with and/or modify stressors. These coping difficulties result in heightened stress (i.e., increased distress) which in turn results in increased health risk. In the present study, ULIs' legal status and their resultant social/political marginalization place them at great social disadvantage even when compared to other Latinx populations (e.g., Derose et al., 2007). Thus, in the presence of the chronic transnational family-separation stressor, ULIs may experience increased distress due to a combination of several unique contextual factors (e.g., anti-immigrant policies) that further restrict ULI's capacity to cope with and effect change in their transnational family-separation status. Following the Social Stress Theory framework logic, it is then likely that this increased family-separation-related distress is associated with diminished health in this population. This, however, remains to be examined.

The Present Study

This study aimed to understand the relation between distress due to transnational family separation and the physical and mental health of ULIs. Guided by Social Stress Theory and extant literature, we hypothesized that, among ULIs in this sample, increases in distress due to transnational family separation would be associated with more reported physical, anxiety, and depression symptoms.

Method

Below we present information on the methods of the present study. In doing so, we report how we determined sample size and include a description of all data exclusions, data manipulations, and study measures.

Recruitment and Sampling Procedure

The present study utilizes data from 254 interviews of ULIs residing in an urban area in Southern California near the U.S.-Mexico border region between November 2014 and January 2015. The study utilized a respondent-driven sampling (RDS) approach for participant recruitment and data analyses, which enabled inference to a population of 22,000 ULIs in the target region (Heckathorn, 1997). In this study, recruitment began with three previously selected ULI or *seeds*. Seeds were identified by formative research and were selected to represent the diversity of the community including gender, age, place of residence, and relevant immigration characteristics. A recruitment chain began so that each seed was provided with three referral coupons to recruit other ULIs for participation. The next seeds were provided with another three referral coupons to recruit additional participants and so on. Each coupon was coded to match the recruiter to the respondent

linking respondents to seeds and referral chains but not to individual referrals. Sampling continued until the final participants no longer matched the initial participants in terms of demographic characteristics

To reduce biased estimates, RDS modifies commonly used chain-referral methods in three ways: (a) to increase the breadth of the social network captured by the sample, recruitment is limited by the use of coupons so participants are only allowed up to three referrals; (b) in using coupons, participants do not identify referrals to the researcher so that anonymity is maintained; and (c) to make results representative of the target population, and not just respondents with large social networks, a systematic weighting scheme is built into the RDS model. Further detail of RDS and its application to the original study is provided by Garcini et al. (2017).

Power Analyses

A priori power analyses were conducted using OpenEpi, Version 3.01 (Dean et al., 2006). Based on the prevalence of mental disorders and physical health disease among Mexican-origin foreign-born immigrants (Alegría et al., 2008; Escarce et al., 2006) we needed a sample size of at least 190 participants. We exceeded that recruitment in the present study.

Participants

The average age of participants was 38.6 years old (*SD* = 10.9). The majority of the sample was female (68.1%) and partnered (i.e., married or living as married; 69.0%). Of those who were partnered, the large majority (66.8%) had their significant other living with them in the U.S. Most participants (86.9%) reported that they had children and the average number of children was 2.9 (*SD* = 1.01). Of these participants, the large majority (84.3%) reported that their children lived with them, and more than half (72.5%) reported that their children were born in the U.S. However, 16.6% of participants who identified as parents also indicated that they had at least one child living in their country of origin. With regard to household composition, participants reported an average household size of 4.3 family members (*SD* = 1.8). Most participants (94.8%) reported that they had at least one close family member in the U.S., but approximately 14.8% of participants reported that they had more family living outside the U.S. than living in the U.S. Participants reported an average of 1.3 family members who lived outside the U.S. (*SD* = 1.5). With regard to the participants' immediate family of origin, 81.2% of participants indicated that their parents lived outside of the U.S. while 64.2% indicated that they had at least one sibling in the U.S. Lastly, participants were largely of Mexican origin (97.4%), had spent an average of 16.6 years (*SD* = 8.0) living in the U.S., and were on average 22.3-years old (*SD* = 9.5) when they arrived in the U.S. Detailed demographics are presented in Table 1.

Study Procedure

Participants met inclusion criteria if they: (a) were at least 18-years old; (b) Spanish speaking; (c) Latinx; (d) did not exhibit symptoms associated with an acute psychotic episode (e.g., hallucinations, delusions, disorganized speech/thoughts) as determined by self-report and the study interviewer's clinical judgment; and (e) were undocumented. Twenty-

five participants in the original study reported that they were not experiencing transnational family separation and were excluded from the current sample (n = 229 participants).

Measures were administered orally by trained bilingual psychology research assistants and graduate students who were under the direct supervision of a mental health clinician. This was done to account for between-participant differences in literacy abilities. All interviewers had extensive knowledge and experience in working with Latinx and undocumented immigrant populations. Given that the majority of participants preferred to communicate in Spanish, interviews were conducted in Spanish. All interviews were conducted at a convenient and private location previously identified by members of the community in order to reduce barriers to research participation. Respondents were compensated for their participation in the interview. Given that study participants were members of a vulnerable group, participants were provided with a letter that contained the informed consent disclosures. Study staff reviewed this letter with participants and obtained verbal consent prior to beginning study procedures. This study was approved by the San Diego State University/University of California San Diego Institutional Review Board.

Measures

Distress From Transnational Family Separation—Distress from transnational family separation was assessed via the Postmigration Living Difficulties Scale (PMLD; Silove et al., 1997). The original 25-item inventory assesses adverse life experiences encountered by participants in the last 12 months; however, participants in this study were asked to consider their experience of adverse events since arriving to the U.S. Due to the unique nature of the study population, the questionnaire was adapted based on information collected as part of the pilot testing process for the initial study and was done to more accurately reflected the undocumented immigrant experience. For this study, only questions related to family-separation difficulties were used. Participants were asked to rate their distress experienced by the following transnational family-separation-related difficulties: (a) worry about your family in your country of origin, (b) difficulties in communicating with your family in your country of origin, and (c) inability to return home in the event of an emergency with a family member. Participants were asked to rate the degree to which they felt distressed by that experience from 0 = *not distressed* to 3 = *very distressed*. Thus, the mean level of distress score that was calculated and used in analyses only represented the distress experienced as a result of the aforementioned three items. The Cronbach's α for all three of these items was good (α = .78)

Anxiety and Depressive Symptoms—Anxiety and depressive symptoms were measured through the depression and anxiety subscales of the Brief Symptom Inventory −53 (BSI–53; Derogatis, 1993). The BSI–53 is a self-report questionnaire that assesses the presence of psychological distress. The depression and anxiety subscales have six items each. Participants rated the level of distress they experienced in the past 7 days (0 = *not at all* to 4 = *extremely*). Raw scores were converted to standardized *t* scores using gender-specific community norms. Community norms, as opposed to outpatient or inpatient norms, were used because this study examined mental health on a continuum and this study population has a low likelihood of accessing mental health services. Clinically significant symptoms are

indicated by *t* scores greater than or equal to 63. The Cronbach's α for the depression (α = .81) and anxiety (α = .71) subscales were adequate.

Physical Symptoms—The Bradford Somatic Inventory–23 (BSI–23; Mumford et al., 1991) is a 23-item, transcultural, self-report measure that was used to assess a wide range of participants' physical symptoms (e.g., headaches, stomach-aches, dizziness, chest pain). For each symptom, participants rate the frequency with which they have experienced that symptom in the last month (0 = *absent*–2 = *present 15 or more days this month*). The sum of all items provides a total score. Higher scores indicate higher number of physical symptoms that are experienced with great frequency with scores ≥ 14 indicating clinically significant symptoms. Estimates of specific health conditions are often difficult to obtain in this population as undocumented immigrants are unlikely to have access to a regular health care provider (Ortega et al., 2018). Thus, this study focused on participants' reported number of physical symptoms as a proxy measure of their physical health status. Cronbach's α for the measure in this study was excellent (α = .90).

Covariates—We considered participant sex, marital status, country of birth, age, number of children, household size, and years in the U.S. as possible covariates. Only participant sex (0 = *male*, 1 = *female*) showed a significant relation to the variables under study (see Table 1) and was included as a covariate in analyses.

Data Analysis

Descriptive statistics and correlations were conducted to preliminarily explore the relations among anxiety symptoms, depressive symptoms, physical symptoms, distress from transnational family separation, and participant sex. These preliminary analyses revealed that there was no missing data on the variables of interest.

Hypothesized models were then tested via path analyses using Mplus Version 8 (Muthén & Muthén, 2017). Path analyses accounted for RDS design effects and sample weights to produce weighted population estimates. Weights were calculated based on the percentage of ULIs that were expected to reside in the study location. For testing RDS assumptions, generating RDS weights, and analyzing population estimates and 95% confidence intervals, the RDS Analyst software was used (Hancock et al., 2014). Diagnostic testing for RDS assumptions showed that the characteristics of the weighted sample approximated the characteristics of the larger networks of ULIs in the greater San Diego area (San Diego Association of Governments, 2016). Path analyses used a stepwise approach to identify the best-fitting and most parsimonious model. This stepwise approach included an initial examination of a model that examined the relation between the predictor variable and all three outcome variables plus sex as a covariate. Each pathway was then subsequently removed in separate models to determine the effect of that pathway on the overall model. In each of these steps, goodness of fit indices [i.e., chi-square, the comparative fix index (CFI), the Standardized Root Mean Square Residual (SRMR)] were used to determine model fit. Good model fit was defined as a nonsignificant chi-square, a CFI > .95, and an SRMR < .08 (Hu & Bentler, 1999; Kline, 2011). Chi-square difference testing was used to compare models. These initial analyses revealed the model presented in this study was the best fitting

model. Once model fit was established, the statistical significance and effect size of the individual pathway standardized coefficients were used to interpret model results. Analyses examined direct pathways from distress from transnational family separation to physical and mental health symptoms. The model was tested using regression analyses with bootstrapped standard errors (iterations = 1,000), accounted for the correlation between the outcome variables, and utilized participant sex as a covariate. Because data analysis of the primary outcomes of this larger study is ongoing, neither the data, study materials, nor the study analysis code is publicly available. This study was not preregistered (see Figure 1).

Results

Descriptive statistics (see Table 1) indicated that the average distress experienced from transnational family separation was 1.7 (SD = .7). A large majority of participants reported that they experienced difficulties in being able to return to their country of origin in the event of an emergency (95.6%) and worries about their family in their country of origin (91.3%). However, most participants (72.1%) did not report difficulties in communicating with their family in their country of origin. Furthermore, the average number of experiences associated with transnational family separation reported by participants was 2.2 (SD = .6). As expected, experiences with transnational family separation were highly correlated with the level of distress that accompanied these experiences (r = .77, $p \leq .001$). The average t score for depressive symptoms was 54.7 (SD = 10.7) and 49.8 for anxiety symptoms (SD = 11.2). Approximately 22.7% and 17.5% of participants' scores were in the clinically significant range for depressive and anxiety symptoms, respectively. Participants reported an average physical symptom score of 7.7 (SD = 7.9) with 19.7% reporting clinically significant physical symptoms.

Bivariate analyses revealed that distress from transnational family separation was positively related to participants' physical symptoms (r = .24, $p \leq .001$), anxiety symptoms (r = .18, p = .008), and depressive symptoms (r = .25, $p \leq .001$). Depressive symptoms were also positively associated with anxiety symptoms (r = .63, $p \leq .001$) and physical symptoms (r = .54, $p \leq .001$). Similarly, anxiety symptoms were positively related to increases in physical symptoms (r = .57, $p \leq .001$). Lastly, participant sex was negatively related to anxiety symptoms (r = −.21, p = .001), but positively related to physical symptoms (r = .17, p = .01), specifically, males were more likely to report more anxiety symptoms than females, whereas females were more likely to report more physical symptoms. See Table 2 for all correlations.

Path Analyses

A path analysis model demonstrated a relation between distress from transnational family separation and ULI's physical and mental health symptoms. This model demonstrated good model fit, $\chi^2(2) = 5.33$, p = .07, CFI = .98, SRMR = .05. Multivariate analyses revealed that distress from transnational family separation was positively related to physical symptoms (β = .24, $p < .001$), depressive symptoms (β = .25, $p < .001$), and anxiety symptoms (β = .18, p = .006). This indicates that as distress from transnational family separation increased so too did participants' depressive, anxiety, and physical symptoms. Notably, a comparison of the standardized coefficients for each of the pathways revealed that distress from transnational

family separation was more strongly related to physical and depressive symptoms than to anxiety symptoms. Ancillary, covariate analyses also revealed that participant sex was significantly related to anxiety symptoms ($\beta = -.30$, $p < .001$) and physical symptoms ($\beta = .22$, $p = .02$), but not to depressive symptoms. Indeed, male participants reported higher levels of anxiety symptoms, whereas females reported greater physical symptoms.

Discussion

Our results support the hypothesis that distress from transnational family separation is related to diminished health in ULIs experiencing transnational family separation, thus providing support for the Social Stress Theory. Specifically, distress from transnational family separation was related to depressive, anxiety, and physical symptoms—with stronger relations to depressive and physical symptoms than to anxiety symptoms. Further, male participants were more likely than female participants to report higher levels of anxiety, and females were more likely than males to report physical symptoms.

Using the Social Stress Theory as a guiding theoretical framework, this study demonstrated that distress from transnational family separation was related to diminished health in ULIs experiencing transnational family separation (Pearlin, 1989). This is the first study to our knowledge to explicitly examine these relations in this manner and in this hard-to-reach population. However, these results are consistent with research documenting the impact of transnational family separation on the health outcomes of non-Latinx immigrant populations (e.g., Afulani et al., 2016; Haagsman et al., 2015). Our findings are also consistent with the literature exploring these relations in the broader Latinx immigrant population (e.g., Letiecq et al., 2014; Parrado et al., 2004). The present study is also consistent with the results of the one study that examined the effect of experiencing the transnational death of a family member on the mental health of ULIs (Garcini et al., 2020). These valuable studies primarily focused on the way in which the experiences that occur as part of the transnational family-separation experience (e.g., leaving children behind, death of family member in the country of origin) impact the health of immigrants. We extend existing knowledge by addressing the mechanisms that tie family-separation experiences with health outcomes and do so with a novel sample of ULIs. Our findings contribute valuable guidance for informing the policies and practices needed to mitigate the health risks that accompany transnational family separation, especially among ULIs.

Though not part of our initial hypotheses, this study also demonstrated that the standardized coefficient for the relation between distress due to transnational family separation and depressive symptoms was greater than the standardized coefficient for the relation between transnational family separation and anxiety, thus suggesting a stronger relation to depressive symptoms than to anxiety symptoms. It is interesting to note that the opposite relations have been documented. Specifically, family separation was more strongly related to increases in anxiety symptoms than to depressive symptoms (Hiott et al., 2006). However, that study focused on Latinx migrant farmworkers' experiences, whereas the present study intentionally assessed participants' legal status to confirm that participants were undocumented. Taking into consideration the research demonstrating that transnational family separation is more difficult for undocumented immigrants compared to immigrants

with other legal statuses (e.g., visas), it is perhaps not surprising that the present study found a different pattern in mental health symptoms (Arbona et al., 2010). Second, the present study specifically focused on examining transnational family separation instead of a broader definition of family separation (e.g., yes/no measure of having experienced family separation). Lastly, the majority of our study population had resided in the U.S. for a significant amount of time. Indeed, the length of time can impact the strength of the relationship between separation and negative health outcomes (Hvidtfeldt et al., 2021). Less is known about the specific disorders. It is possible that more recently arrived immigrants may experience increased anxiety related to maintaining social ties with separated family members and navigating postarrival stressors than more established immigrants. As immigrants become more established, these concerns may dissipate, and depressive symptoms may emerge as family separations are protracted. Findings from Garcini et al. (2017) support this notion by demonstrating that depression was the most prominent mental health concern among established Latinx immigrants. Given the novelty of these results, however, additional research is needed to replicate and better understand these patterns of mental health sequelae.

It is also important to contextualize these results by highlighting that the majority of study participants identified as parents with children living at home. Robust evidence demonstrates that diminished parental well-being is related to poor child outcomes including but not limited to emotional/behavioral problems, impaired cognitive functioning, and developmental delays (e.g., Manning & Gregoire, 2006; Sieh et al., 2010). Taking into consideration this literature and our findings, it is likely that the health risks highlighted by this study also have implications for the well-being of children in immigrant families. Further, a sizeable percentage of study participants who identified as parents also indicated that they had at least one child who resided in their country of origin. The limited literature that has examined this form of transnational family separation in the broader immigrant population has shown that the negative parental physical and mental health outcomes associated with transnational family separation are even more heightened when the separation occurs between a parent and a child (e.g., Afulani et al., 2016; Haagsman et al., 2015). The health consequences associated with this form of transnational family separation have also been found to extend to the child during the separation and also after reunification (e.g., Gindling & Poggio, 2012; Schapiro et al., 2013). Thus, by capturing a sample that predominately identified as parents, we were able to provide some initial evidence to suggest that the consequences of our study findings may have enduring transgenerational effects.

Recommendations

This study sought to promote the well-being of ULIs by understanding the factors that impact their health with the aim to identify ways to reduce health disparities and morbidity in this population. Given our findings that distress from transnational family separation is related to diminished health among ULIs, we provide concrete recommendations to focus on actions steps to decrease health risk in ULIs in the presence of this unique stressor.

First, changes must be made to allow ULIs the capacity to respond to changes in their health status in a timely and efficient manner. Indeed, ULIs face a significant number of barriers in accessing health care and these healthcare access related difficulties are, in it of themselves, related to diminished physical and mental health among ULIs (Galvan et al., 2021). Thus, a starting point for improving the well-being of ULIs is to address the barriers that limit their access to healthcare—the biggest of which is a lack of health insurance coverage (Ortega et al., 2018). Modifications to local municipality protocols and procedures related to health insurance coverage for ULIs are necessary to increase these vulnerable populations' access to quality health care. While we acknowledge that this is a complex and controversial topic, it is also important to acknowledge that there are several examples in the U.S. where health insurance has been successfully expanded—at least in some capacity—to include undocumented immigrants. For instance, several states (e.g., Colorado, California, Illinois) have expanded Medicaid to either broaden the definition of "emergency services" that are covered or have expanded coverage eligibility to segments of the ULI population (e.g., kids and young adults up until age 26, postpartum women, elderly; Allyn, 2019; Bruce, 2021; Ortega, 2020). While there may be other ways to expand health insurance coverage to include ULIs, these examples provide initial guidance for local municipalities seeking to increase ULI's access to health care via improving health insurance coverage.

Concurrent efforts to increase health literacy among ULIs are also crucial to mitigate the health risks highlighted by this study. These efforts should ensure that the information disseminated is equally balanced to include knowledge about specific physical and mental health conditions, as well as knowledge about the way in which chronic contextual stressors, such as transnational family separation, can affect ULIs' health status. To most effectively disseminate this information, organizations should leverage existing avenues for mass communication (e.g., social media, television, radio) and partner with well-respected members or organizations in the ULI community. Paraprofessional community workforces (i.e., *promotoras*, community health workers) can also be utilized to disseminate this health information as extant literature has demonstrated the important role that they play in supporting the health and well-being of Latinx communities (e.g., Waitzkin et al., 2011). Special care should be taken when disseminating this information to ensure that: (a) materials include a list of resources and organizations that can be accessed by ULIs should they have concerns about their physical and mental health, and (b) the information disseminated is accurate, encourages help-seeking, and preemptively addresses potential sources of misinformation as much as possible. The latter is particularly important in light of the research documenting the potential for social networks to facilitate misinformation or discourage help seeking if attention is not given to identify and address sources of inaccurate health messages (Sluzki, 2010).

Healthcare systems would also benefit from engaging in initiatives to increase the availability of affordable healthcare services and ensure that the professionals affiliated with these systems are equipped to provide culturally, contextually, and linguistically competent services to ULIs. We provide some examples of what these initiatives could look like. First, healthcare systems can be a driving force in the establishment and proliferation of hospital-community-government partnerships. These partnerships can aid local advocacy efforts to increase access to affordable healthcare services and ensure that these efforts

come to fruition to benefit the communities where a large number of ULIs reside. Examples of these partnerships exist throughout the U.S. and guidance is available via a rapidly growing body of literature (e.g., Health Research Educational & Educational Trust, 2017). Second, healthcare systems can engage in regular needs assessment and resource mapping efforts to identify and establish a healthcare system that is responsive to the ever-changing needs of the ULI community. The use of community-engaged research and health outreach methodology can be particularly helpful in these efforts (e.g., Hebert-Beirne et al., 2018). Third, healthcare systems can engage healthcare providers, paraprofessionals, and community members who serve as healthcare liaisons in specialized training focused on the unique contextual factors that impact the physical and mental health of ULIs. To maximize the utility of this training, sessions should focus on how to: (a) incorporate these contextual factors (e.g., transnational family separation) into treatment conceptualization and approach, and (b) deliver brief culturally and contextually responsive interventions (e.g., problem-solving approaches, stress coping techniques, grief processing) in a variety of settings. The latter recommendation can be particularly effective for this population if follow-up or long-term healthcare access is not available. Training and ongoing support should, however, incorporate regularly updated resources that are appropriate for ULIs should brief intervention not be sufficient to address health concerns.

These recommendations are not exhaustive. We encourage local researchers/providers/partnerships to consider other avenues and opportunities for promoting the health of ULIs, particularly as it is impacted by transnational family separation. Nonetheless, we strongly believe that the aforementioned recommendations increase awareness of and create actionable steps to reduce health disparities among this highly vulnerable population.

Limitations

Though this study yielded important and innovative information about the health of ULIs, it is not without limitations. First, reliable estimates of chronic health conditions are difficult to obtain. While we believe that the use of physical symptoms as a proxy measure for participant's health status is the best available measure of physical health in this population, we recognize that there is room for improvement in the way in which ULI's physical health was measured. This limitation further underscores the importance of continued research on the health of this population, including a focus on risk and resilience factors that affect health outcomes. Second, we recognize that transnational family separation is just one of many forms of family separation that is experienced by ULIs (e.g., deportation, detention), and that these forms of family separation may be differentially related to ULI health outcomes compared to transnational family separation. However, the present study intentionally focused on transnational family separation as it is one of the most commonly experienced forms of separation within ULI communities. This study, thus, aimed to establish a foundational understanding of the relation between this form of family separation and health in this marginalized population. Additional research is needed though to understand how other forms of family separation impact the physical and mental health of ULIs in the U.S. Third, the majority of our sample indicated that their country of origin was Mexico. While Mexicans continue to make up the largest undocumented immigrant group in the United States, we recognize that there is much variability in the undocumented

experience based on country of origin (Gonzalez-Barerra & Krogstad, 2019). For this reason, future studies should aim to examine within-group differences in the relations demonstrated by the present study based on immigrant's country of origin. Given that the referenced literature has demonstrated the negative impact of caregiver-child separations on caregiver and youth well-being, additional research is needed to understand the mechanisms by which transnational family separation impacts the health of Latinx children and their caregivers.

Conclusion

Robust evidence has now established that ULIs are at an increased risk for diminished physical and mental health outcomes in part because of the unique stressors that they experience—often in an ongoing, chronic manner. One of the most commonly experienced stressors among ULIs is that of transnational family separation. Research into transnational family separation with immigrant populations has established that transnational family separation is associated with increased health risk, yet this relation has yet to be established among ULIs. While important to understand how the experience of transnational family separation and health are related, it is even more critical to understand what drives this relation in order to reduce morbidity and health disparities more effectively. To that end, the present study demonstrated that distress from transnational family separation is a driver of diminished health outcomes in ULI communities. In light of these results, important systemic changes to our approach to healthcare delivery and access among ULIs communities are needed in order to promote the well-being of this at-risk population.

References

Afulani PA, Torres JM, Sudhinaraset M, & Asunka J (2016). Transnational ties and the health of sub-Saharan African migrants: The moderating role of gender and family separation. Social Science & Medicine, 168, 63–71. 10.1016/j.socscimed.2016.09.009 [PubMed: 27639482]

Alcántara C, Chen CN, & Alegría M (2015). Transnational ties and past-year major depressive episodes among Latino immigrants. Cultural Diversity & Ethnic Minority Psychology, 21(3), 486–495. 10.1037/a0037540 [PubMed: 25090146]

Alegría M, Canino G, Shrout PE, Woo M, Duan N, Vila D, Torres M, Chen CN, & Meng X-L (2008). Prevalence of mental illness in immigrant and non-immigrant U.S. Latino groups. The American Journal of Psychiatry, 165(3), 359–369. 10.1176/appi.ajp.2007.07040704 [PubMed: 18245178]

Allyn B (2019 July 10). California is 1st state to offer health benefits to adult undocumented immigrants. National Public Radio. https://www.npr.org/2019/07/10/740147546/california-first-state-to-offer-health-benefits-to-adult-undocumented-immigrants

Arbona C, Olvera N, Rodriguez N, Hagan J, Linares A, & Wiesner M (2010). Acculturative stress among documented and undocumented Latino immigrants in the United States. Hispanic Journal of Behavioral Sciences, 32(3), 362–384. 10.1177/0739986310373210 [PubMed: 25484488]

Bruce G (2021, January 7). Illinois is first in the nation to extend health coverage to undocumented seniors. KHN. https://khn.org/news/article/illinois-is-first-in-the-nation-to-extend-health-coverage-to-undocumented-seniors/

Burton-Jeangros C, Duvoisin A, Consoli L, Fakhoury J, & Jackson Y (2021). The well-being of newly regularized migrant workers: Determinants of their satisfaction with life as compared to undocumented migrant workers and regular local residents. Comparative Migration Studies, 9(1), Article 42. 10.1186/s40878-021-00244-2

Center for Substance Abuse Treatment. (2014). Trauma-informed care in behavioral health services (Treatment Improvement Protocol No. 57). Substance Abuse and Mental Health Services Administration.

Cervantes JM, Mejía OL, & Guerrero Mena A (2010). Serial migration and the assessment of extreme and unusual psychological hardship with undocumented Latina/o families. Hispanic Journal of Behavioral Sciences, 32(2), 275–291. 10.1177/0739986310366286

Dean AG, Sullivan KM, & Soe MM (2006). OpenEpi: Open-source epidemiologic statistics for public health. https://www.openepi.com

Derogatis LR (1993). BSI Brief Symptom Inventory: Administration, scoring, and procedures manual (4th ed.). National Computer Systems.

Derose KP, Escarce JJ, & Lurie N (2007). Immigrants and health care: Sources of vulnerability. Health Affairs, 26(5), 1258–1268. 10.1377/hlthaff.26.5.1258 [PubMed: 17848435]

Dreby J (2015). U.S. immigration policy and family separation: The consequences for children's well-being. Social Science & Medicine, 132, 245–251. 10.1016/j.socscimed.2014.08.041 [PubMed: 25228438]

Enchautegui M, & Menjivar C (2015). Paradoxes of family immigration policy: Separation, reorganization, and reunification of families under current immigration laws. Law & Policy, 37(2), 32–60. 10.1111/lapo.12030

Escarce JJ, Morales LS, & Rumbaut RG (2006). The health status and health behaviors of Hispanics. In Hispanics and the future of America. National Academies Press. https://www.ncbi.nlm.nih.gov/books/NBK19899/

Fazel-Zarandi MM, Feinstein JS, & Kaplan EH (2018). The number of undocumented immigrants in the United States: Estimates based on demographic modeling with data from 1990 to 2016. PLOS ONE, 13(9), Article e0201193. 10.1371/journal.pone.0201193

Galvan T, Lill S, & Garcini LM (2021). Another brick in the wall: Healthcare access difficulties and their implications of undocumented Latino/a immigrants. Journal of Immigrant and Minority Health, 23(5), 885–894. 10.1007/s10903-021-01187-7 [PubMed: 33755839]

Garcini LM, Galvan T, Brown R, Chen M, Klonoff EA, Ziauddin K, & Fagundes CP (2020). Miles over mind: Transnational death and its association with psychological distress among undocumented Mexican immigrants. Death Studies, 44(6), 357–365. 10.1080/07481187.2019.1573862 [PubMed: 30821636]

Garcini LM, Peña JM, Galvan T, Fagundes CP, Malcarne V, & Klonoff EA (2017). Mental disorders among undocumented Mexican immigrants in high-risk neighborhoods: Prevalence, comorbidity, and vulnerabilities. Journal of Consulting and Clinical Psychology, 85(10), 927–936. 10.1037/ccp0000237 [PubMed: 28956948]

Gindling TH, & Poggio SZ (2012). Family separation and reunification as a factor in the educational success of immigrant children. Journal of Ethnic and Migration Studies, 38(7), 1155–1173. 10.1080/1369183X.2012.681458

Gonzalez JJ, Kula SM, Gonzalez VV, & Paik SJ (2017). Context of Latino students' family separation during and after immigration: Perspectives, challenges, and opportunities for collaborative efforts. School Community Journal, 27(2), 211–228.

Gonzalez-Barerra A, & Krogstad JM (2019, June 28). What we know about illegal immigration from Mexico. Pew Research Center. https://www.pewresearch.org/fact-tank/2019/06/28/what-we-know-about-illegal-immigration-from-mexico/

Gubernskaya Z, & Dreby J (2017). US immigration policy and case for family unity. Journal on Migration and Human Security, 5(2), 417–430. 10.1177/233150241700500210

Haagsman K, Mazzucato V, & Dito BB (2015). Transnational families and the subjective well-being of migrant parents: Angolan and Nigerian parents in the Netherlands. Ethnic and Racial Studies, 38(15), 2652–2671. 10.1080/01419870.2015.1037783

Hancock MS, Fellows IE, Gile KJ (2014). RDS analyst: Software for the analysis of respondent-driven sampling data. (Version 0.42).

Health Research Educational & Educational Trust. (2017). A playbook for fostering hospital-community partnerships to build a culture of health. https://www.aha.org/system/files/hpoe/Reports-HPOE/2017/A-playbook-for-fostering-hospitalcommunity-partnerships.pdf

Hebert-Beirne J, Hernandez SG, Felner J, Schwiesow J, Mayer A, Rak K, Chávez N, Castañeda Y, & Kennelly J (2018). Using community-driven, participatory qualitative inquiry to discern nuanced community health needs and assets of Chicago's la villita, a Mexican immigrant neighborhood. Journal of Community Health, 43(4), 775–786. 10.1007/s10900-018-0484-2 [PubMed: 29520556]

Heckathorn DD (1997). Respondent driven sampling: A new approach to the study of hidden populations. Social Problems, 44(2), 174–199. 10.2307/3096941

Hiott A, Grzywacz JG, Arcury TA, & Quandt SA (2006). Gender differences in anxiety and depression among immigrant Latinos. Family, Systems, & Health. The Journal of Collaborative Family Healthcare, 24(2), 137–146. 10.1037/1091-7527.24.2.137

Hu L, & Bentler PM (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling, 6(1), 1–55. 10.1080/10705519909540118

Hvidtfeldt C, Petersen JH, & Norredam M (2021). Waiting for family reunification and the risk of mental disorders among refugee fathers: A 24-year longitudinal cohort study from Denmark. Social Psychiatry and Psychiatric Epidemiology. Advance online publication. 10.1007/s00127-021-02170-1

Keller A, Litzelman K, Wisk LE, Maddox T, Cheng ER, Creswell PD, & Witt WP (2012). Does the perception that stress affects health matter? The association with health and mortality. Health Psychology, 31(5), 677–684. 10.1037/a0026743 [PubMed: 22201278]

Kline RB (2011). Principles and practice of structural equation modeling (3rd ed.). Guilford Press.

Letiecq BL, Grzywacz JG, Gray KM, & Eudave YM (2014). Depression among Mexican men on the migration frontier: The role of family separation and other structural and situational stressors. Journal of Immigrant and Minority Health, 16, 1193–1200. 10.1007/s10903-013-9918-1 [PubMed: 24142396]

Magaña CG, & Hovey JD (2003). Psychosocial stressors associated with Mexican migrant farmworkers in the midwest United States. Journal of Immigrant Health, 5(2), 75–86. 10.1023/A:1022955825650 [PubMed: 14512761]

Manning C, & Gregoire A (2006). Effects of parental mental illness on children. Psychiatry, 5(1), 10–12. 10.1383/psyt.2006.5.1.10

Mumford DB, Bavington JT, Bhatnagar KS, Hussain Y, Mirza S, & Naraghi MM (1991). The Bradford Somatic Inventory. A multi-ethnic inventory of somatic symptoms reported by anxious and depressed patients in Britain and the Indo-Pakistan subcontinent. The British Journal of Psychiatry, 158(3), 379–386. 10.1192/bjp.158.3.379 [PubMed: 2036538]

Muthén LK, & Muthén BO (2017). Mplus user's guide (6th ed.). Muthén & Muthén.

National Immigration Forum. (2019). Push or pull factors: What drives central migrants to the U.S. https://immigrationforum.org/article/push-or-pull-factors-what-drives-central-american-migrants-to-the-u-s/

National Research Council. (2008). Recognition and alleviation of distress in laboratory animals. http://www.nap.edu/catalog/11931.html

Ortega AN, McKenna RM, Kemmick Pintor J, Langellier BA, Roby DH, Pourat N, Bustamante AV, & Wallace SP (2018). Health care access and physical and behavioral health among undocumented Latinos in California. Medical Care, 56(11), 919–926. 10.1097/MLR.0000000000000985 [PubMed: 30216201]

Ortega M (2020, March 4). Colorado changed its rules so undocumented people can get regular dialysis: Its saved lives and dollars. Colorado Public Radio. https://www.cpr.org/2020/03/04/colorado-changed-its-rules-so-undocumented-people-can-get-regular-dialysis-its-saved-lives-and-dollars/

Parrado EA, Flippen CA, & McQuiston C (2004). Use of commercial sex workers among Hispanic migrants in North Carolina: Implications for the spread of HIV. Perspectives on Sexual and Reproductive Health, 36(4), 150–156. 10.1363/3615004 [PubMed: 15321781]

Passel JS, & Cohn D (2019, June 12). Mexicans decline to less than half the U.S. unauthorized immigrant population for the first time. Pew Research Center. https://www.pewresearch.org/fact-tank/2019/06/12/us-unauthorized-immigrant-population-2017

Pearlin LI (1989). The sociological study of stress. Journal of Health and Social Behavior, 30(3), 241–256. 10.2307/2136956 [PubMed: 2674272]

Rusch D, & Reyes K (2012). Examining the effects of Mexican serial migration and family separations on acculturative stress, depression, and family functioning. Hispanic Journal of Behavioral Sciences, 35(2), 139–158. 10.1177/0739986312467292

San Diego Association of Governments. (2016, January). Demographics in the San Diego region. https://www.sandag.org/uploads/publicationid/publicationid_2001_20213.pdf

Schapiro NA, Kools SM, Weiss SJ, & Brindis CD (2013). Separation and reunification: The experiences of adolescents living in transnational families. Current Problems in Pediatric and Adolescent Health Care, 43(3), 48–68. 10.1016/j.cppeds.2012.12.001 [PubMed: 23419833]

Sieh DS, Meijer AM, Oort FJ, Visser-Meily JMA, & Van der Leij DAV (2010). Problem behavior in children of chronically ill parents: A meta-analysis. Clinical Child and Family Psychology Review, 13(4), 384–397. 10.1007/s10567-010-0074-z [PubMed: 20640510]

Silove D, Sinnerbrink I, Field A, Manicavasagar V, & Steel Z (1997). Anxiety, depression and PTSD in asylum-seekers: Assocations with pre-migration trauma and post-migration stressors. The British Journal of Psychiatry, 170(4), 351–357. 10.1192/bjp.170.4.351 [PubMed: 9246254]

Sluzki CE (2010). Personal social networks and health: Conceptual and clinical implications of their reciprocal impact. Families, Systems & Health, 28(1), 1–18. 10.1037/a0019061

Waitzkin H, Getrich C, Heying S, Rodríguez L, Parmar A, Willging C, Yager J, & Santos R (2011). Promotoras as mental health practitioners in primary care: A multi-method study of an intervention to address contextual sources of depression. Journal of Community Health, 36(2), 316–331. 10.1007/s10900-010-9313-y [PubMed: 20882400]

Waldinger R (2013). Immigrant transnationalism. Current Sociology, 61(5–6), 756–777. 10.1177/0011392113498692

Young MT, & Madrigal DS (2017). Documenting legal status: A systematic review of measurement of undocumented status in health research. Public Health Reviews, 38(26), Article 26. 10.1186/s40985-017-0073-4

Zentgraf KM, & Stoltz Chinchilla N (2012). Transnational family separation: A framework for analysis. Journal of Ethnic and Migration Studies, 38(2), 345–366. 10.1080/1369183X.2011.646431

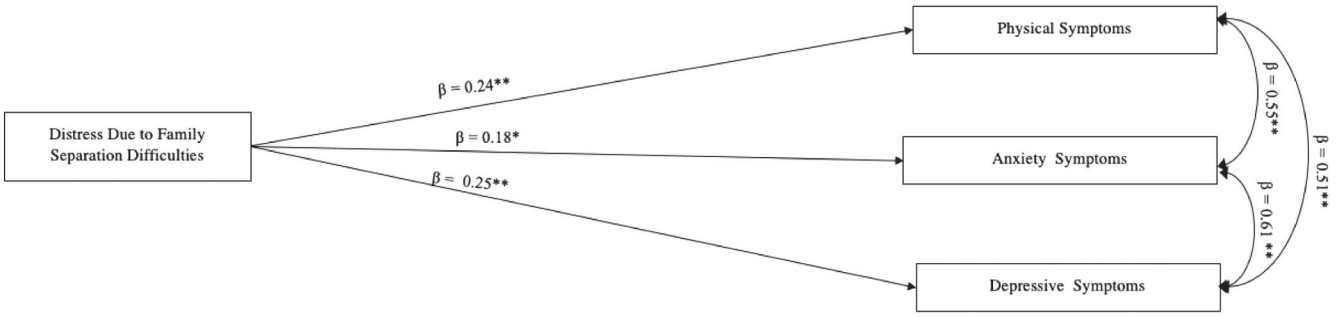

Figure 1. Model With Standardized Coefficients

Note. Sex was included as a covariate in the model. The model fit index statistics are $\chi^2(2) = 5.33$, $p = .07$, CFI = .98, SRMR = .05. * $p \leq .01$. ** $p \leq .001$.

Table 1

Sample Characteristics

Factor	Sample (n = 229) n	%	Population (N = 22,000) %	95% CI	SE
Sex					0.05
Female	156	68.1	66.7	56.5, 76.8	
Male	73	31.9	33.3	23.2, 43.5	
Marital status					0.04
Partnered	158	69.0	70.4	62.2, 78.9	
Not partnered	71	31.0	29.6	21.1, 37.8	
Have children					0.03
Yes	199	86.9	83.9	77.9, 89.9	
No	30	13.1	16.0	10.1, 22.1	
Country of birth					0.01
Mexico	223	97.4	97.8	95.3, 100.0	
Other	6	2.6	2.2	0.2, 4.7	
[a]Depressive symptoms					0.04
Below clinical	177	77.3	76.4	68.1, 85.1	
At or above	55	22.7	23.6	15.0, 31.9	
[a]Anxiety symptoms					0.04
Below clinical	189	82.5	83.3	76.4, 90.1	
At or above clinical	40	17.5	16.7	9.9, 23.6	
[b]Physical symptoms					0.04
Below clinical	184	80.3	80.9	73.4, 88.4	
At or above clinical	45	19.7	19.1	11.6, 26.6	

	n	M	SD	M	95% CI	SE
Age	229	38.6	10.9	40.2	37.1,43.4	1.16
Number of children	229	2.9	1.9	2.8	2.5, 3.2	0.19
Household size	229	4.3	1.8	4.3	3.9, 4.7	0.19
Years in U.S.	229	16.2	8.0	17.6	15.1, 20.1	1.29
Transnational fam. distress	229	1.7	0.7	1.6	1.5, 1.8	0.08
Depressive symptoms	229	54.7	10.7	54.8	52.4, 57.1	1.19
Anxiety symptoms	229	49.8	11.2	49.3	47.2, 51.3	1.04
Physical symptoms	229	7.7	7.9	7.8	6.1, 9.5	0.87

[a]BSI scores < 63 were indicative of no clinically significant symptoms whereas scores ≥ 63 were indicative of clinically significant symptoms.

[b]Bradford somatization scores < 14 were indicative of no clinically significant symptoms whereas scores ≥ 14 were indicative of clinically significant symptoms.

Table 2

Correlations and Descriptive Information of Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Distress due to family separation	—										
2. Anxiety symptoms (*t* scores)	.18**	—									
3. Depressive symptoms (*t* scores)	.25***	.63***	—								
4. Physical symptoms	.24***	.57***	.54***	—							
5. Sex[a]	.08	−.21**	−.10	.17*	—						
6. Age	−.01	−.05	−.01	0.09	.13	—					
7. Marital status[b]	.02	.09	−.01	−.05	−.05	−.05	—				
8. Years in U.S.[c]	−.02	−.01	.07	.12	.06	.51***	−.02	—			
9. Number of children	.09	−.00	.02	.02	.23***	.51***	.18**	.27***	—		
10. Country of birth[d]	.01	.12	.09	.10	−.01	.07	−.01	−.10	.04	—	
11. Household size in U.S.	.01	−.09	−.09	−.11	.08	−.12	.22**	.02	.29***	.18**	—
M (SD)	1.7 (.7)	49.8 (11.2)	54.7 (10.7)	7.7 (7.9)	0.7 (.5)	38.59 (10.94)	.69 (0.46)	16.22 (8.04)	2.86 (1.91)	.03 (.16)	4.28 (1.82)
Range	0–3	38–80	41–90	0–42	0–1	18–74	0–1	.5–54	0–12	0–1	1–12

[a]Sex: 0 = *male,* 1 = *female.*

[b]Marital Status: 0 = *unpartnered,* 1 = *partnered.*

[c]Measured in years.

[d]Country of Birth: 0 = *Mexico,* 1 = *Other Latinx-Country.*

*$p \leq .05$.

**$p \leq .01$.

***$p \leq .001$.