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The Relationships between Loneliness, Social Support, and Resilience among Latinx Immigrants in the United States

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Abstract

Globally, international migrants are at elevated risk for experiencing loneliness due to separation from social networks in their countries of origin. In the United States, the political rhetoric has been particularly exclusionary against Latinx immigrants, exposing them to discrimination and fear of deportation. Such environments may result in heightened levels of social isolation, which may contribute to greater risk of poor mental and physical health outcomes. Latinx immigrants, however, may access social support in their destination communities that buffers against these negative outcomes. This study sought to examine how social support and loneliness shape Latinx immigrants' abilities to address the challenges related to migration. Multivariate linear regression analyses were conducted with survey data collected from Latinx immigrants in New York City (n=306). Results revealed that Latinx immigrants with greater social support and less feelings of loneliness were more resilient. Specifically, findings suggest that social support may partially protect against the negative impact of isolation on Latinx immigrants' capacity to thrive. Clinical social workers who work with immigrant groups may consider how migration during the life course affects immigrants' social supports and experiences of loneliness. Social work interventions that integrate strategies to increase social support may provide opportunities to address social isolation and other obstacles associated with migration. Such approaches acknowledge loneliness not only as a psychological symptom, but also as a consequence of unfavorable social environments towards immigrant populations. Future research may develop and assess culturally relevant strategies to promote social support and reduce loneliness among marginalized immigrants.

Conflict of Interest: The authors declare that they have no conflict of interest.

Informed consent: Informed consent was obtained from all individual participants included in the study.

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Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional review board at New York University and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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Keywords

social support; loneliness; resilience; immigrants; Latinx

Introduction

Latinxs are the largest and among the fastest growing racial and ethnic minority groups in the United States (U.S.) with a considerable proportion of growth attributable to immigration (U.S. Census Bureau 2017). The number of foreign-born Latinxs in the U.S. has increased nearly twentyfold since 1960 and has contributed to notable shifts in the nation's demographics (Flores 2017; Zong et al. 2019). Currently, 19.7 million Latinx immigrants reside in the U.S., constituting more than a third of the overall U.S. Latinx population (Flores 2017; U.S. Census Bureau 2017).

Despite the frequency of immigration to the U.S., it does not occur without implications for individual level health and well-being. International migration significantly alters the life course and can present stressful situations and experiences that can affect health outcomes (Allen et al. 2015; Gkiouleka et al. 2018; Weine and Kashuba 2012). As Latinx immigrants leave their countries of origin, they may separate from family members and enter unfamiliar communities, which can create stressful experiences (Hurtado-de-Mendoza et al. 2014; Viruell-Fuentes and Schulz 2009). Latinx immigrants are likely to encounter an array of stressors resulting from migration, including financial constraints, language barriers, loss of social networks, and discrimination (Caplan 2007; Hurtado-de-Mendoza et al. 2014). These factors are inextricably linked to social and demographic factors, implicating specific subgroups of Latinx immigrants to be markedly vulnerable to experiencing stress.

Further, ongoing debates regarding immigration policies and efforts to restrict entry of individuals from Latin America into the U.S. have created an exclusionary and stressful environment for Latinx immigrants (Blitzer 2018; Lee and Zhou 2019). Anti-immigrant rhetoric in the media and the current political discourse may also contribute to fear among Latinx immigrants (Hall 2019; Lopez et al. 2018). As immigrants from Mexico, Central America, and South America account for nearly three-fourths (72%) of all unauthorized immigrants in the U.S., concern about legal status or that of their friends or family members may exacerbate migratory-related stress among this population (Zong et al. 2019).

When Latinx immigrants confront contexts characterized by stress and exclusion, they are at elevated risk for experiencing loneliness and social isolation. Heightened levels of social isolation or loneliness can be problematic, as evidenced by the large body of research demonstrating the link between loneliness and poor mental health (Dell et al. 2019; Heikkinen and Kauppinen 2004; Hiott et al. 2006; Kawachi and Berkman 2001; Ornelas et al. 2009). For example, loneliness has been associated with depression, anxiety, and suicidality (De Oliveira et al. 2017; Fortuna et al. 2007; Martínez Pincay and Guarnaccia 2007).

Despite the negative impacts of loneliness on the mental health of Latinx immigrants, Latinx immigrants may exhibit or develop resilience when overcoming the adversity and challenges

associated with migration and beyond (Gray et al. 2015; Lusk et al. 2019). Resilience has been defined not only as an individual psychological trait but also as a process of overcoming the negative effects of risk exposures (Lusk et al. 2019; Perez et al. 2009). As such, resilience can have long-term influences in ensuring one's success and well-being (Perez et al. 2009). Therefore, resilience may protect Latinx immigrants against the negative consequences of migration and contribute to positive outcomes such as academic achievement, employment, and realization of personal goals and social responsibilities (Chapin 2015; Perez et al. 2009). While it is well-established that loneliness can adversely affect Latinx immigrants' health, it is less understood how loneliness may affect resilience among this group.

Notably, social support is a well-established protective factor against loneliness (Chen et al. 2019; Cohen and Wills 1985; Kawachi and Berkman 2001; Lee et al. 2019). Access to social support can provide individuals with resources to cope with stressors, including those related to immigration (Cano et al. 2017; Lee et al. 2012). Among Latinx immigrants, social support has been associated with lower levels of stress and depression (Documet et al. 2018; Salgado et al. 2012). Social support is also considered a fundamental component of Latinxs' cultural values of connectedness and emphasis on the family (Behnke et al. 2008). Further, social support has often been considered a critical source of resilience among Latinx immigrants through family networks, friendships, and informal migrant networks (Flores-Yeffal 2013; Gray et al. 2015; Sajquim de Torres and Lusk 2018). Specifically, these forms of social support can provide opportunities for community involvement and keep Latinx immigrants optimistic and hopeful about the future (Linton et al. 2016; Lusk et al. 2019). As such, social support can be critical for maintaining health, building community, and achieving success in education and employment (Linton et al. 2016).

As social support offers a critical resource for individuals who may experience loneliness or social isolation, strategies to enhance social support are increasingly relevant during periods of political exclusion or discrimination (Parra-Cardona et al. 2006; Steers et al. 2019). Hence, strategies to enhance social support among Latinx immigrants may be particularly relevant for clinical social workers who work with this population. Evidence-based practices for working with Latinx populations emphasize the importance of developing culturally responsive strategies to address mental health concerns (Duarté-Vélez et al. 2010; Gelman 2004; Parra-Cardona et al. 2017). Notably, Latinxs may rely on support from close friends or family in lieu of accessing formal social work services (Ayón 2014; Ornelas et al. 2009). Further, Latinx immigrants constitute a widely diverse population with different ethnic backgrounds and cultural practices. As Latinx immigrants migrate from countries with varying sociopolitical contexts and relationships with the U.S., they not only represent a growing population in the U.S., but also an increasingly diverse and complex group of individuals.

Among this diverse group of Latinx immigrants, it is unclear how loneliness may affect the resilience of Latinx immigrants and how social support can protect against the potential detrimental effects of loneliness on resilience. To inform ways to mitigate loneliness among Latinx immigrants and determine strategies for tailoring social work interventions, this paper: (1) examines how loneliness, social support, and resilience vary across demographic

characteristics among Latinx immigrants, and (2) assesses how loneliness and social support shape resilience. Greater understanding of the relationships between social support, loneliness, and resilience among Latinx immigrants with attention to intragroup differences in social work practice with Latinxs may inform clinical practice strategies that acknowledge the distinct and shifting social contexts and norms of Latinx immigrant clients (Furman et al. 2009).

Procedures

This study analyzed cross-sectional data from surveys conducted with Latinx immigrants during the spring of 2017. Participants were adults, aged 18 and older who resided in the Corona neighborhood of Queens in New York City (n=306). The target Corona neighborhood for the study was divided into eight different zones, and a zone was randomly selected on each day of recruitment. Recruitment occurred on all days of the week from 8 a.m. to 8 p.m. to reduce potential selection bias. Bilingual project staff recruited participants in the randomly selected zone using a door-to-door approach to screen individuals for eligibility (Seña et al. 2010). Eligibility criteria for the study included being: 1) at least 18 years old, 2) born outside of the continental U.S. (foreign-born), and 3) of Latinx ethnicity. Surveys were conducted in Spanish or English based on the participant's preference and were administered in a private location such as the participant's home. All study procedures were approved by the Institutional Review Board at New York University. Additional details about participant recruitment and study procedures can be found at Lee and Yu (2018).

Measures

Sociodemographic characteristics—Surveys assessed participants' demographic characteristics including, sex, country of origin, age, language, education, income, immigration status, and length of time in the U.S.

Loneliness—Loneliness was measured using a three-item loneliness scale (α =0.72) (Hughes et al. 2004). Participants responded to items on a 5-point Likert scale (1=never, 2=rarely, 3=sometimes, 4=very often, 5=always). Items included, "How often do you feel left out?", "How often do you feel that people are around you but not with you?", and "How often do you feel alone?"

Social support—We assessed social support using a social support subscale (a=0.91) (Fleishman et al. 2000; Sherbourne and Stewart 1991; Yang et al. 2015) recommended by the Seek, Test, Treat and Retain (STTR) Harmonization Project facilitated by the National Institute on Drug Abuse (NIDA) to promote the use of common measures across studies that focus on addressing HIV among vulnerable populations (NIDA 2013). Participants indicated how often they had different types of support available to them in the past four weeks on a 5-point Likert scale (1=almost never, 2=sometimes, 3=a moderate amount of the time, 4=most of the time, 5=almost all the time). There were 5 items which included: "Someone to love and make you feel wanted", "Someone to help with daily chores if you were sick", "Someone to help you buy medicines," "Someone to help with transportation," and "Someone to give you money if you needed it".

Resilience—Resilience was assessed with an abbreviated version of the Connor-Davidson Resilience scale (CD-RISC; α =0.72) (Connor and Davidson 2003). Ten items asked participants about the extent to which they agreed or disagreed with statements including, "I am able to adapt when changes occur", "I can deal with whatever comes my way", "I tend to bounce back after illness, injury, or other hardships". Participants responded on a 5-point Likert scale (1=strongly disagree, 2=moderately disagree, 3=neither, 4=moderately agree, 5=strongly agree).

Statistical Analyses

We hypothesized that among study participants: (1) loneliness, social support, and resilience would vary across sociodemographic characteristics, (2) loneliness would be negatively associated with resilience, (3) social support would be positively associated with resilience, and (4) social support would mitigate the negative effects of loneliness on resilience. To test our study's hypotheses, statistical analyses proceeded in three steps. First, we conducted analysis of variance (ANOVA) tests to examine differences in social support, resilience, and social isolation across participants' sociodemographic characteristics. Then, we calculated Pearson correlation coefficients (r) to examine the relationships between social support, loneliness, and resilience. Lastly, we conducted multivariable linear regressions to further examine how social support and loneliness shaped resilience in Latinx immigrants, before and after controlling for sociodemographic covariates across three models. Specifically, the first model examined the association between social support and resilience; the second model examined the association between loneliness and resilience; the third model examined both social support and loneliness in predicting resilience in the regression analysis. Missing data was minimal across all variables <5% and were treated as missing at random. All analyses were conducted using STATA 14.

Results

The sample included 306 participants who completed the survey. Among participants, 52.6% were female and 47.4% identified as male. The ages of participants ranged from 18 to 80 years with a mean age of 38 years. Participants' countries of origin included Ecuador (31.4%), the Dominican Republic (27.1%), Mexico (27.1%), Colombia (6.5%), and Peru (5.2%); approximately 8.4% of participants reported being from other Latin American countries. One-third of participants (33.0%) completed high school and 36.7% of participants completed some high school or less. Three-fourths (75.8%) of participants reported annual household incomes of \$29,000 or less. The median length of time residing in the mainland U.S. among participants was 14 years. More than a quarter (28.6%) of participants reported being unauthorized migrants and 24.6% reported being naturalized citizens. The majority (80.7%) of participants indicated speaking only Spanish or Spanish better than English and 17% reported speaking Spanish and English equally. No participants reported speaking only English. Among participants, 56.9% reported having health insurance.

Participants' average scores for loneliness, resilience, and social support were calculated by summing scores and dividing the scores by the number of items. Scores ranged from 1 to 5, with higher scores indicating higher levels of social support, loneliness, or resilience.

Table 1 presents the associations between participants' sociodemographic characteristics and social support, loneliness, and resilience. Overall, the mean scores for social support, loneliness, and resilience were 2.92, 1.90, and 4.23, respectively. There were significant differences in social support across groups based on income (p<.01), language (p<.01), and having health insurance (p<.05). Specifically, participants in the higher income groups (\$30,000-\$40,000, \$40,000+) were more likely to report having greater social support than those reporting incomes between \$0 and \$29,999. Participants who reported speaking both English and Spanish equally reported greater social support than participants who reported speaking only Spanish, speaking Spanish better than English, or speaking English better than Spanish. Participants who reported having health insurance. Social support was not significantly different across all other sociodemographic characteristics examined (sex, age, country of origin, length of time in the U.S., education, and immigration status).

Apart from language (p<.01), loneliness was not statistically different across sociodemographic characteristics. Immigrants who reported speaking both Spanish and English equally reported the lowest level of loneliness, while immigrants who reported speaking English better than Spanish reported the highest level of loneliness.

Resilience varied among participants by sex (p < .01), country of origin (p < .05), and income level (p < .05). Males were more likely to report higher resilience compared to females; participants from the Dominican Republic reported higher levels of resilience while participants from Ecuador reported the lowest level of resilience. Participants in higher income groups also tended to be associated with higher levels of resilience.

Associations among social support, loneliness and resilience

Table 2 presents the correlation statistics between social support, loneliness, and resilience. Social support was positively correlated with resilience (r=0.16, p<.01) and negatively associated with loneliness (r=-0.20, p<.01). Loneliness was negatively associated with resilience (r=-0.19, p<.01).

In the multivariable regression analyses (Table 3), social support and loneliness were associated with resilience before and after controlling for all sociodemographic covariates (Model 1 and Model 2). Social support was positively associated with resilience (B= 0.09, 95% CI = 0.01, 0.17, p< .05) and loneliness was negatively associated with resilience (B= -0.13, 95% CI = -0.23, -0.03, p< .05) in the adjusted model. In Model 3, social support and loneliness were both significantly associated with resilience in the unadjusted model. Yet, after controlling for all covariates, only loneliness remained significantly associated with resilience (B = -0.11, 95% CI = -0.21, 0.00, p< .05).

Discussion

The factors driving immigration vary greatly. Persons migrating to new places may be in part driven by the desire to search for social and economic prosperity (Giuntella et al. 2018). Yet, a major consequence of moving to a new community may be the physical separation of family, friends, and social support more broadly (Giuntella et al. 2018). The lack of social support may contribute to a sense of loneliness and isolation, which can impede the potential social and economic progress that immigrants sought in their destination communities (Wittkowski et al. 2017). The current study demonstrated that lower levels of loneliness and higher levels of social support were associated with a greater sense of resilience among Latinx immigrants.

Resilience is critical particularly during times of political turmoil (Rodriguez Vega 2018). The current political rhetoric and societal discourse regarding immigration may increase stigma related to the immigration process and potentially promote isolation. Social networks that offer social support may serve as a protective factor among Latinx immigrants to cope with feelings of loneliness and address the adversities involved in the immigration process. Clinical interventions that integrate strategies to increase social support may create opportunities for addressing social isolation and other obstacles associated with migration.

Social work efforts to mitigate social isolation among immigrants can be traced back to the early settlement house movements from the early 1900s. Specifically, by providing people who arrived to the U.S. with access to education, healthcare, and other social services, settlement houses facilitated the development of new social networks among immigrants and promoted integration (Friedman and Friedman 2005; Trattner 1999). Similarly, current research on clinical interventions that focus on reducing loneliness point to improving social skills, enhancing social support, increasing opportunities for social contact, and addressing maladaptive social cognitions as common intervention strategies (Andersson 1998; Masi et al. 2011; O'Rourke et al. 2018). For example, cognitive behavioral therapy has shown to be an effective clinical approach to reducing loneliness among Latinxs (Antoniades et al. 2014; Collado et al. 2016; Stacciarini et al. 2007). Further, fostering acceptance and equanimity with feelings of loneliness may support changes in maladaptive social perceptions or cognitions that hinder social engagement (Lindsay et al. 2019).

In a meta-analysis examining intervention strategies for reducing loneliness that drew upon data from clinical trials, clinical interventions that targeted maladaptive social conditions demonstrated promise in loneliness reduction (Masi et al. 2011). The authors, however, caution against using a single therapeutic approach in interventions as the underlying cause of loneliness may be compounded by several complex and intersecting factors such as social skill needs, lack of social support, and minimal social contact (Masi et al. 2011). Thus, clinical interventions for specific immigrant populations require tailoring and careful selection based on the client's psychosocial and physical needs (Block et al. 2018; Shvedko et al. 2018).

Attention to the delivery mechanisms of social work interventions is also important for tailoring services for Latinx immigrant groups as contextual, social, and political barriers

may prevent Latinx immigrants from accessing programs in particular settings. For example, concerns regarding legal status may hinder some individuals from physically going to clinics or centers where they can receive services. Hence, alternative strategies such as technology-based interventions may be feasible and acceptable approaches for delivering services to reduce loneliness in this community (Dang et al. 2013; Selsky et al. 2013). Notably, one study found that counseling via telephone was more efficacious in reducing loneliness among Latinxs relative to formal education or services (Badger et al. 2019). Taken together, attention to appropriately tailoring interventions and their delivery is pivotal for shaping determinants of loneliness for Latinx immigrants.

Despite the protective effect of social support, study results demonstrated that loneliness had a detrimental effect on immigrants' resilience, even when controlling for social support. This finding illustrates that social support alone may not address the issue of social isolation among immigrants. Social isolation among immigrants may be related to other contextual factors, including the sociopolitical environment and attitudes towards immigrants in the U.S. (Lee and Zhou 2019). Hence, social work practitioners should not only focus on the social support provided by immigrants' friends, families, or significant others, but should also take notice of the macro-level social environment that may contribute to feelings of social isolation among immigrants. For example, clinical social workers might ask about how the sociopolitical climate affects clients' feelings in efforts to support the management of particular beliefs or concerns. Social workers in macro-level practice might demonstrate the consequences of excluding or overlooking immigrants from programming or policy formulation and advocate for policies that foster a more inclusive climate for immigrants.

Notably, study results highlighted that particular demographic characteristics such as language, income, and sex may be associated with increased social support, loneliness, or resilience. For example, results indicated that participants who spoke both Spanish and English equally reported higher levels of social support. This finding potentially points to participants' broader access to different social support networks resulting from their language abilities (Ward et al. 2019). At the same time, participants who spoke English better than Spanish reported higher levels of loneliness, which may indicate a potential disconnect from individuals from their countries of origin, or others who primarily speak Spanish. While adaptation to the host destination society, including language, may facilitate access to social support from the dominant culture and reduce societal stressors such as employment and discrimination (Constantine et al. 2004; Potochnick and Perreira 2010), exposure to discrimination and the pressure to assimilate can be detrimental to mental health (Araújo Dawson 2009; Calzada and Sales 2019). Notably, theories on the process of deculturation suggest that as traditional values and behaviors that are protective against poor mental health fade, life in the U.S. may lead to negative outcomes such as loneliness (Escobar et al. 2000; Grzywacz et al. 2006).

The slightly higher mean levels of resilience among males relative to female participants in study findings align with prior research demonstrating the linkages between resilience and Latinx cultural values, including gender roles (Bermudez and Mancini 2013). Latina females have been shown to be more likely to not only endorse familial cultural values, but to also feel greater pressure to embody those roles (Cupito et al. 2015). Hence, females who fail to

fulfil particular roles may experience greater depressive symptoms and exhibit less resilience due to heightened pressure and levels of expectations (Cupito et al. 2015; Lorenzo-Blanco et al. 2012). The finding that country of origin was also associated with resilience may be due to the different contexts and experiences in those countries that shaped participants' levels of adversity, resources, and challenges when migrating to the U.S. (Suárez-Orozco et al. 2018). For example, immigrants from the Dominican Republic reported a higher mean level of resilience than participants from other countries, which may be attributed to residence in Spanish-speaking ethnic enclaves in the U.S. and frequent travel to their country of origin (Coll and Szalacha 2004; Torres-Saillant and Hernández 1998). Hence, the ability to maintain cultural assets and strong linkages to their home country may buffer against discrimination and enhance resilience even in difficult situations (López 2015).

The significant finding that social support was, in part, related to lower income levels is consistent with the larger literature on social support (e.g., Pinquart and Sorensen 2001). Participants with lower incomes may have encountered challenges to accessing social support and maintaining resilience in challenging situations. While age, length of time in the U.S., immigration status, and education were not statistically associated with social support, loneliness, and resilience among participants, they may still be important sociodemographic characteristics to consider for understanding the study's outcomes of interest. Specifically, these characteristics may be distally associated with more proximal factors that shape mental health outcomes (Espeleta et al. 2019; Gousse et al. 2018). Feelings of loneliness, for example, are multidimensional and can be long-lasting. As such, some Latinx immigrants may experience difficulties forming social relationships regardless of the length of time they have been in the U.S. (Hurtado-de-Mendoza et al. 2014; Ornelas et al. 2009). Thus, recognition of the diverse situations and contexts that can pose barriers to building social connections among Latinx immigrants is important for social workers who seek to reduce isolation among this population.

Taken together, social work practitioners may assess for these characteristics to inform practice approaches for improving immigrants' resilience, increasing their social connections, and addressing loneliness or other mental health concerns in this community. Overall, clinical social workers who work with immigrant groups may consider how migration during the life course affects immigrants' social supports, experiences of loneliness, and resilience.

Limitations

No study is without limitations. The current study used data from a cross-sectional survey, which poses limitations on the inference of causality and the specific sources of loneliness. While a systematic approach was utilized to recruit participants, the sample may still be biased and results may not be generalizable to other populations. Another limitation is the potential bias due to socially desirable responding. Notably, we assessed for social desirability using two validated measures of socially desirable response tendency (Paulhus 1984, 1991). The socially desirable response measures were not significantly correlated with social support or loneliness, but were slightly correlated with resilience among participants

(p < .01). Hence, socially desirable responding may partially explain the high resilience scores among participants and should be considered when interpreting study findings.

Although Queens, New York hosts one of the most diverse immigrant communities in the U.S., the extent to which this large immigrant community served as a protective factor is unknown. This leaves the question as to how these findings would fare in areas of the country where immigrant communities are desolate or are more highly marginalized. Further, the current findings speak to the experience of Latinx immigrant communities, but do not specifically draw upon the experiences of immigrants with origins in countries outside of Latin America.

Conclusion

In light of the limitations, we believe that the results of this study provide context to the inequities faced by Latinx immigrants in the U.S. The migration process is dynamic in that individuals face different psychosocial factors at various stages of the immigration process. Of additional consideration is the clinical significance of arriving to one's new community as a form of resilience but also as a risk factor for loneliness and possible isolation. This study demonstrated that Latinx immigrants who experience greater social support and lower levels of loneliness may report greater levels of resilience. While social support may partially protect against the negative impact of isolation on Latinx immigrants, attention to other factors that shape their experiences are critical for further understanding and enhancing outcomes. Important to note is that despite the stress and potential trauma faced during the migration process, Latinx immigrants are, overall, a resilient population.

Clinical interventions that integrate strategies to address the overall impact of migration on immigrants' social support, social isolation, and resilience may provide opportunities to not only prevent potential mental health issues among immigrants, but also improve their overall capacities to thrive in new environments. Social work efforts to enhance this resilience warrants thoughtful and tailored social support alongside transformation of unfavorable social environments. Such approaches acknowledge loneliness not only as a psychological symptom, but also as a consequence of unfavorable social environments and stigma directed towards immigrants.

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Table 1:

Loneliness social support, and resilience by sociodemographic characteristics

	Social Support (M)	р	Loneliness (M)	р	Resilience (M)	р
Overall	2.92		1.90		4.23	
Sex		0.12		0.29		0.01*
Female	2.82		1.95		4.12	
Male	3.03		1.84		4.35	
Age (years)		0.45		0.21		0.68
18–24	3.13		1.86		4.09	
25–34	2.86		2.04		4.25	
35–44	2.75		1.71		4.30	
45–54	3.02		1.90		4.17	
55+	3.03		1.89		4.24	
Country of Origin		0.54		0.24		0.01*
Mexico	2.75		1.84		4.31	
Ecuador	3.04		1.99		4.01	
Dominican Republic	2.84		1.85		4.44	
Colombia	3.23		1.86		4.20	
Peru	2.86		1.46		4.19	
Other ^a	2.91		2.13		4.26	
Length of Time in U.S.		0.67		0.07		0.25
<5	2.75		2.19		4.09	
5-<10	2.83		1.78		4.41	
10-<15	2.90		1.72		4.33	
15-<20	3.04		1.91		4.15	
20 +	2.99		1.87		4.24	
Education		0.25		0.21		0.63
Eighth grade or less	2.77		2.06		4.35	
Some high school	2.81		1.86		4.13	
Completed high school	2.96		1.80		4.21	
Some college	3.21		1.83		4.23	
Completed college	2.77		2.17	0.27	4.30	
Income		0.00 **				0.02*
\$0-\$9,999	2.70		2.06		4.15	
\$10,000-19,999	2.88		1.90		4.10	
\$20,000-\$29,999	2.83		1.72		4.35	
\$30,000-\$39,999	3.04		1.80		4.17	
\$40,000+	3.72		1.83		4.57	
Immigration Status		0.18		0.70		0.56
Legal permanent resident	2.85		1.90		4.27	
Naturalized	3.19		1.85		4.27	

	Social Support (M)	р	Loneliness (M)	р	Resilience (M)	р
Unauthorized	2.74		1.90		4.21	
Eligible	2.90		1.94		4.01	
Legal Temp	2.72		2.26		4.28	
Language		0.00**		0.01 **		0.31
Only Spanish	2.82		2.03		4.18	
Spanish better than English	2.70		1.83		4.20	
Both equally	3.58		1.62		4.41	
English better than Spanish	3.20		2.67		4.15	
Health Insurance		0.04*		0.38		0.94
Yes	3.04		1.86		4.23	
No	2.76		1.95		4.23	

^aOther included: Cuba, El Salvador, Guatemala, Nicaragua, Venezuela, Paraguay, and Puerto Rico

 $^{b}\ensuremath{\text{``Only English''}}$ is excluded from the Table as no participants reported speaking only English

* p<0.05

** p<.01

Table 2:

Correlations between social support, loneliness, and resilience

	Social Support	Loneliness	Resilience
Social Support		-0.20**	0.16**
Loneliness			-0.19 **

** p<.01 Author Manuscript

Multivariate regression models predicting resilience among Latino immigrants

	Model 1 Resilience	el 1 ence	Model 2 Resilience	el 2 ence	Model 3 Resilience	lel 3 ience
	Unadjusted B (95% CI)	Adjusted ^a B (95% CI)	Unadjusted B (95% CI) Adjusted ^{a} B (95% CI) Unadjusted B (95% CI) Adjusted ^{a} B (95% CI) Unadjusted B (95% CI) Adjusted ^{a} B (95% CI)	Adjusted ^{<i>a</i>} B (95% CI)	Unadjusted B (95% CI)	Adjusted ^a B (95% CI)
Social Support	$0.10\left(0.03{-}0.17 ight)^{**}$	$0.09 (0.01 - 0.17)^{*}$			$0.08\ (0.01{-}0.16)^{*}$	0.08 (-0.01-0.16)
Loneliness			$-0.15 \left(-0.250.06\right)^{**}$	$-0.13\left(-0.230.03 ight)^{*}$	$-0.13 \left(-0.220.04\right)^{**}$	$-0.11 \left(-0.21 - 0.00 \right)^{*}$
Note. CI= confidence interval.	ence interval.					
^a Adjusted models	a djusted models controlled for all sociodemographic characteristics listed in Table 1	graphic characteristics liste	d in Table 1			
* p<.05						
** p<.01						