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Economic and Social Consequences of COVID-19 and Mental Health Burden Among Latinx Young Adults During the 2020 Pandemic

Alice P. Villatoro¹, Kevin M. Wagner², V. Nelly Salgado de Snyder^{3, 4}, Deliana Garcia⁵, Ashley A. Walsdorf⁶, and Carmen R. Valdez⁶

¹ Public Health Program, Santa Clara University

Latinx young adults 18-25 years old face unique challenges that disproportionately put them at high risk of experiencing health as well as economic and social burden due to the Coronavirus disease (COVID-19) pandemic. The present study examined how economic and psychosocial consequences as a result of the pandemic were associated with mental health issues among a community sample of Latinx young adults (N = 83) from Central Texas. Participants completed an online survey of COVID-related experiences and mental health needs. The survey asked about personal and family experiences of COVID-19 in two significant areas: (a) economic strain (e.g., economic hardship, food insecurity) and (b) psychosocial burden (e.g., losing relationships, substance use). Regression analyses examined the association of COVID-19 consequences on level of mental health symptoms and clinically significant outcomes. Relative to economic consequences, psychosocial consequences due to the COVID-19 pandemic were associated with higher levels of mental health symptoms. In contrast, in few cases, economic strain resultant from the pandemic was correlated with clinically significant outcomes among this sample. Collectively, findings suggest that the costs of the pandemic do not only pertain to mortality from illness but also to morbidity as it relates to deteriorating social circumstances and mental health. Findings from this study call for immediate attention to implement policies and programs to help mitigate the economic and social-emotional consequences of COVID-19 such as easy access to low-cost virtual mental health resources to Latinx young adults.

Alice P. Villatoro https://orcid.org/0000-0002-4865-

Kevin M. Wagner https://orcid.org/0000-0002-0521-

V. Nelly Salgado de Snyder https://orcid.org/0000-0002-3750-4371

Carmen R. Valdez https://orcid.org/0000-0002-7608-4146

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Correspondence concerning this article should be addressed to Carmen R. Valdez, Department of Population Health and Steve Hicks School of Social Work, The University of Texas at Austin, 1601 Trinity Street, Bldg B, Dell Medical School, Austin, TX 78712, United States. Email: crvaldez@utexas.edu

² Department of Educational Psychology, The University of Texas at Austin

³ Instituto Nacional de Salud Pública, Cuernavaca, México

⁴ The Latino Research Institute, The University of Texas at Austin

⁵ Migrant Clinicians Network, Austin, Texas, United States

⁶ Department of Population Health and Steve Hicks School of Social Work, The University of Texas at Austin

Public Significance Statement

Young adults are often underrepresented in research and practice, which is concerning because they face unique mental health risks. Our study found that Coronavirus disease (COVID-19) and shelter-in-place measures during the first 6 months of the pandemic burdened Latinx young adults economically and interpersonally, which was associated with poor mental health outcomes. Findings from this study call for immediate action to implement policies that help reduce the social and economic impact of COVID-19 on Latinx young adults.

Keywords: mental health, COVID-19, Latinx/Latino/Hispanic, young adults, immigrants

The Coronavirus disease (COVID-19) pandemic has decimated low-income, Latinx communities in the United States (U.S.), leading to a significantly higher risk for infection, morbidity, and mortality compared to non-Hispanic whites (Macias Gil et al., 2020; Page & Flores-Miller, 2021; Tai et al., 2020). To put this into perspective, Latinxs represent less than 20% of the total U.S. population, yet over one-third of COVID-19 cases are among Latinxs (Noe-Bustamante et al., 2020; Tai et al., 2020) and one-third of COVID-19-related deaths are among Latinxs in the U.S. (Centers for Disease Control & Prevention, 2021). In Texas, where Latinxs account for over one-third of the state's population, 48.2% of all COVID-19 cases are among Latinxs, and half of COVID-19-related fatalities are also observed in this group (50.1%; Sáenz, 2020).

Latinx communities in the U.S. have disproportionately experienced the brunt of the pandemicrelated economic fallout, as well. Nearly three quarters of Latinx households reported facing serious financial problems during the pandemic such as using up all or most of their savings, difficulty paying off debt, and inability to afford medical care (NPR. Robert Wood Johnson Foundation, & Harvard T.H. Chan School of Public Health, 2020). Likewise, Latinx adults had the highest unemployment rates (19%) during the first few months of the pandemic; these rates were most pronounced among Latinx young adults ages 16-24 years, with over 30% reporting being unemployed compared to less than 25% of their white counterparts (Sáenz & Sparks, 2020).

Not surprisingly then, the prevalence of mental distress during the pandemic has been higher and more persistent among Latinxs than for non-Latinx whites (Breslau et al., 2021; Riehm et al., 2021). The present study advances understanding of the mental health impact of COVID-19

on Latinx communities by examining how the resultant economic and social burdens of the pandemic are associated with mental health issues. We examined this question in the context of first- and second-generation Latinx immigrant young adults 18–25 years old, as they represent a transitional population that is at higher risk of contracting COVID-19 (Boehmer et al., 2020), experiencing high rates of unemployment (Sáenz & Sparks, 2020), and experiencing elevated mental health problems during the pandemic (McGinty et al., 2020).

Latinx Young Adult Mental Health and Development During COVID-19

Due to the COVID-19-related impacts on Latinx young adults, there is an urgent need to understand how these influences are shaping the lives and the mental health of this population. Prior to the pandemic, Latinx young adults had high rates of poor mental health (e.g., posttraumatic stress disorder; PTSD, depression, and anxiety) and substance use (e.g., Garcini et al., 2016), with higher rates among those who also experienced immigration-related stress (Torres et al., 2018). During the pandemic, mental health issues among Latinx young adults rose (Goodman et al., 2020; Page & Flores-Miller, 2021). Elevated rates of anxiety, depression, suicidal ideation, and substance use have been reported among Latinx young adults relative to other ethnic and age groups (Czeisler et al., 2020). Serious psychological distress—which is highly correlated with clinically significant psychiatric disorders (Kessler et al., 2003) increased from 1 year prior to the pandemic, especially among Latinx adults, younger adults, and women compared to other groups (Breslau et al., 2021). These patterns in elevated mental distress were reported to persist among Latinxs over the first 6 months of the pandemic (Riehm et al., 2021). Although the existing literature previously outlined has documented that Latinx populations are disproportionately burdened by mental health issues during the pandemic, research has yet to explore the potential mechanisms by which COVID-19-related impacts affect mental health.

Young adulthood also represents a critical, transitional development period where socialemotional bonds flourish and coping strategies are solidified (Scales et al., 2015). "Extraordinary social events," such as experiencing a global pandemic, can alter young adult development in immense ways including needing to change living arrangements to make ends meet (e.g., moving back in with one's parents) and the loss of the ability to build buffering social supports in normative ways (e.g., attending social events or meet-up groups; Scales et al., 2015, p. 152). To make matters worse, school and business closures, increased unemployment and family demands, wage decreases, and soaring COVID-19 infection rates interrupted the expected trajectory toward independence and other important developmental tasks that are common and pivotal in young adulthood (Ku & Brantley, 2020; Martin & Sorensen, 2020; Sáenz & Sparks, 2020). Disruptions to these life-course milestones are associated with negative developmental outcomes, including a heightened risk for mental health issues such as depression and anxiety (e.g., Ajrouch et al., 2020). For Latinx young adults, the economic and social burdens experienced during the pandemic may be particularly taxing and may provide insight as to why Latinx young adults are experiencing higher mental health distress than other groups.

The Economic and Social Fallout of COVID-19 on Latinx Young Adults

Economic inequities were prominent during the 2020 pandemic, resulting in high and persistent unemployment (Sáenz & Sparks, 2020), as well as greater financial insecurity among Latinxs and young adults in particular (NPR. Robert Wood Johnson Foundation, & Harvard T.H. Chan School of Public Health, 2020). During the pandemic, 41.5% of employed adults were able to work from home, whereas less than 25% of

low-income and Latinx employed adults were permitted the same (Karpman et al., 2020). National survey results show that young adults and individuals with less education, along with Hispanic women and immigrants, are among the groups most impacted by COVID-19-related job loss (Kochhar, 2020). These economic and financial constraints force Latinx young adults to take on occupations that place them at higher risk for exposure to COVID-19. Compared to other racial/ethnic and age groups, Latinx young adults are overrepresented in frontline occupations that are not amenable to COVID-19 prevention guidelines (e.g., social distancing), such as restaurants, retail stores, and public transport (Boehmer et al., 2020; Dyal et al., 2020; Rodriguez-Diaz et al., 2020). In many instances, these jobs do not include paid sick leave, the ability to work remotely, or permit to practice shelter-in-place measures (Webb Hooper et al., 2020; Yancy, 2020).

Cultural expectations and other economic factors may further contribute to elevated stress during the pandemic due to the need to live in multigenerational and/or crowded households (Quandt et al., 2020; Taylor et al., 2011; The New Yorker, 2020). Latinx young adults tend to step in as financial providers for their families, as the pandemic resulted in significant job loss and reduced income among Latinx parents compared to non-Latinx whites (Karpman et al., 2020). Moreover, living in multigenerational households with members with differing levels of exposure to the virus propagated the spread of COVID-19 within households, possibly leading to significant morbidity and/or death among family members. As such, this situation heightened fear of bringing the virus home, threatening the health of the family.

Finally, the consequences of the pandemic are not limited to economic factors. In a systematic review of the consequences of mass quarantine during epidemics, including the COVID-19 pandemic, Chu et al. (2020) identified several social consequences of stay-at-home measures that may relate to Latinx young adults including (a) increased stigma and discrimination for those self-isolating and limiting social interactions outside of work; (b) heightened communication inequities, particularly for linguistic minorities; (c) education disruptions for those in school who must transfer to web-based learning; and (d) increases in gender inequity with women more likely to be expected to manage children's

home-based schooling, as well as increased reports of domestic violence. These isolation-related consequences may be particularly detrimental to young adults who are in the midst of establishing their identities and life trajectories and who, during the pandemic, must do so amongst great uncertainty (Scales et al., 2015). Latinxs from immigrant families may already be especially vulnerable to social isolation and/or loneliness due to immigration-related factors such as family separation, undocumented status, acculturation stress, and socio-political climate-related factors such as discrimination, which could compound the isolative effects of quarantine (Hawkins et al., 2021). Feelings of social isolation have documented ties to a wealth of mental health issues, and research suggests feelings of social isolation during COVID are related to higher levels of substance use in an attempt to cope (Chu et al., 2020; Clair et al., 2021). These results are particularly troubling given that reduced mobility and thus connectivity were found to be more pronounced for low-income areas as well as areas with higher income inequality, demonstrating that the disproportionate effects of the pandemic also extend beyond mere economic consequences (Bonaccorsi et al., 2020).

The Present Study

The current literature on the mental health burden of the COVID-19 pandemic has elucidated how Latinx populations are disproportionately affected. Yet, the existing epidemiological research is limited as it has not been able to directly examine the economic and social mechanisms by which the fallout of the pandemic could explain elevation in mental health burden. The present study provides the first step in advancing this line of research by measuring the personal and family impacts of COVID-19 on Latinx immigrant young adults and examining the direct relation of these impacts on mental health burden among this high-risk population.

The purpose of this study was to examine the relation between COVID-19-related impacts and mental health among Latinx young adults—a population that is understudied, heavily afflicted by social disadvantage, and disproportionately impacted by the pandemic. We hypothesized that during the early months of the pandemic, Latinx young adults would show signs of significant mental health need, including high levels of

mental health symptoms and clinical mental health outcomes. We also hypothesized that Latinx young adults who were economically and/or socially impacted by COVID-19 (e.g., lost significant relationships, were unable to pay rent, etc.) were likely to demonstrate greater mental health burden than Latinx young adults who were not economically and/or socially impacted.

Method

Study Setting

Data were derived from the Latinx Wellness Study, a mixed-methods mental health needs assessment of Latinx, first- and second-generation immigrant, young adults 18-25 years old residing in Central Texas. The study was conducted in two parts. First, participants self-administered a 30-min online survey that queried about their COVID-19 experiences, mental health, barriers to mental health services, stigma, immigration-related experiences, and utilization of mental health services (N = 117). Second, a subsample of survey participants was invited to participate in focus groups to understand subjective experiences related to mental health during the pandemic. This analysis reports only on quantitative results from the survey. This research was a community-based partnership between researchers at an academic institution, leaders of a migrant-serving organization, and the Ventanilla de Salud (VDS; Health Window) located within the Mexican Consulate. This collaboration was in response to a call for expanding mental health resources and services to the Latinx community at the consulate via the VDS. The needs assessment was the first step.

Procedure

Recruitment strategies were developed in collaboration with a community advisory board composed of local Latinx leaders, families with lived mental health challenges, university researchers, and a community strategy team of community advocates. Study participants were recruited through the university, a local community college, the consulate, and the social media sites of local community organizations. Information about the study was shared via email or through social media, and prospective participants were invited to complete an online eligibility form. Eligibility criteria included:

self-identifying as Latinx; speaking English or Spanish; being born in or having a parent born in Mexico, Central America, or South America; and currently living in one of the 23 Central Texas counties comprising the consulate's catchment area. Prospective participants were excluded from the study if they expressed current suicidal intent, had attempted suicide within the past year, or had a serious mental illness (e.g., schizophrenia/psychosis) or cognitive disability. A member of the research team contacted individuals who endorsed any of these items and offered resources to obtain help. Among prospective participants who met the eligibility criteria, a researcher contacted them within 24 hr to verify their information. This procedure allowed for the detection of potential robo responses. Participants meeting the eligibility criteria were sent a unique weblink that only they could access alongside the online consent form. Participants received a \$25 electronic gift card for completing a majority of the survey (\sim 75%). All participants completed the survey in English. Data collection commenced in February 2020. After the declaration of COVID-19 as a global pandemic in March 2020, data collection paused to develop and incorporate new questions into the survey about the impacts of COVID-19. Data collection resumed 1 month later and concluded in August 2020.

Participants

A total of 117 participants completed the online survey, but only 83 responded to the questions about the COVID-19 pandemic and thus comprise the sample for this analysis. Participants were on average 21.11 years old (SD=3.98), predominately female, and less than half were first-generation immigrants (i.e., they were born outside the U.S.; see Table 1). The overwhelming majority was single and had at least some college education.

Measures

Mental Health Burden

Standardized measures of psychological distress (Kessler-6; Kessler et al., 2003) and general mental health symptoms (Brief Symptom Inventory-18; Derogatis, 2001) that have been validated in Latinx populations (Asner-Self et al., 2006; Kim et al., 2016; Negi & Iwamoto, 2014; Prelow et al., 2005; Stolk et al., 2014)

Table 1Sample Characteristics of Latinx Wellness Study (February–August 2020; N = 83)

Participant characteristics	M (SD) or %
Age	21.11 (3.98)
Male	21.69%
Generational status	
1st generation immigrant	43.37%
2nd generation immigrant	56.63%
Marital status	
Single	86.75%
Married	2.41%
Living with partner	7.23%
Other	3.61%
Education	
HS or equivalent	25.30%
At least some college or more	74.70%
Currently working	68.87%
# of COVID-19 consequences	
Economic strain (range: 0–10)	2.04 (2.34)
Psychosocial (range: 0–5)	1.51 (1.34)
Diagnosed with a mental health problem	15.66%
by a professional	
Clinically significant symptoms	
Serious psychological distress (K6)	26.51%
Global severity index	12.05%
Somatization	13.25%
Depression	9.64%
Anxiety	14.46%
Mental health symptoms	
Psychological distress (range: 0–24)	8.99 (5.48)
Global severity index (<i>t</i> -score)	49.73 (9.64)
Somatization (<i>t</i> -score)	49.79 (9.50)
Depression (<i>t</i> -score)	49.50 (9.35)
Anxiety (t-score)	49.94 (9.84)

Note. HS = High School.

were used to assess mental health burden, including symptoms on a continuum and clinically significant outcomes. The Kessler-6 (K6) is a six-item measure of 30-day psychological distress that is widely utilized in research. Items assess frequency of feeling (a) nervous, (b) hopeless, (c) restless/fidgety, (d) depressed, (e) everything being an effort, and (f) feeling worthless. Response options range from 0 (none of the time) to 4 (all of the time). Items were summed to create a total score (range 0–24; Cronbach's $\alpha = 0.89$), where higher scores indicated higher levels of psychological distress. A score of 13 or above was used to categorize individuals with and without serious psychological distress (i.e., $0 = N_0$; 1 = Serious Psychological Distress). This cutpoint has been previously validated and is highly correlated with clinically significant mental health outcomes (Kessler et al., 2003).

The Brief Symptom Inventory-18 (BSI-18; Derogatis, 2001) examines domains of psychological problems over the past 7 days, including somatization ($\alpha = 0.78$), depression ($\alpha = 0.82$), and anxiety ($\alpha = 0.88$). Each subscale has six questions (e.g., "... feeling no interest in things"), with response options ranging from 0 (not at all) to 4 (extremely). For each subscale, scores were summed and transformed into t-scores, where higher t-scores indicated higher level of symptoms within each subscale. Participants with t-scores of 63 or above were categorized as likely experiencing clinically significant problems within each subscale (i.e., 0 = No; 1 = Clinical Symptoms). Finally, all items were combined to comprise the global severity index ($\alpha = 0.92$). Similar procedures were used to construct a total t-score and indicator variable of clinical problems for the global severity index.

Economic and Social COVID-19 Experiences

A questionnaire to assess the economic and social consequences of COVID-19 was created for the purposes of this study. The format of the questionnaire was adapted from the University of Southern California's Understanding America Study of COVID-19 (Bennett et al., 2020). The COVID-19 questionnaire was designed to assess engagement of COVID-19 prevention strategies and to measure the extent of the pandemic's toll on financial security, home and family life, and psychosocial consequences. To assess the impact of the pandemic on daily life, we first asked participants to indicate what is the likelihood that they and/or a family member, respectively, will experience a particular consequence (e.g., lose a job) in the next 3 months as a result of the pandemic. Responses ranged from 1 (very unlikely) to 5 (very likely). Participants were then asked if they and/or family member, respectively, had already experienced said consequence, with the response options of 0 (no) or 1 (yes). For the COVID-19 experiences items, exploratory factor analysis using oblique rotation and face validity yielded a scale with three factors: (a) personal and/or family economic strain (hereafter economic strain; 10 items: lost a job, ran out of money, food insecurity, unable to pay rent/mortgage, received financial assistance); (b) psychosocial consequences (five items: lost important relationships, experiencing depression/anxiety, used alcohol/drugs); and (c) violence (two items: experienced violence from family and/or strangers). Consequences experienced by the participant and a family member were combined for each subscale as the factor analyses revealed that these items clustered together. A count of the number of experienced consequences by the young adult and their family during the pandemic were created for each subscale (economic strain range: 0–10; psychosocial range: 0–5; and violence range: 0–2). Due to the low endorsement of violence during the pandemic, this domain was not included in further analyses.

Data Analysis

We next examined associations of COVID-19 economic strain and psychosocial consequences on two types of mental health burden outcomes: levels of mental health symptoms and clinically significant outcomes. Levels of psychological distress (Kessler 6) and domains of mental health symptoms as assessed by the global severity index, somatization, depression, and anxiety subscales of the BSI-18 were examined via multivariable ordinary least squares regression models. Multivariable logistic regression models tested the association of COVID-19 economic and social consequences on clinically significant mental health outcomes (i.e., serious psychological distress and high BSI-18 symptoms). All analyses controlled for participant gender (male vs. female—referent), completed education (at least some college vs. high school equivalent or less-referent), and generational status (first generation—i.e., foreign-born vs. second generation—i.e., U.S.-born, referent group). For all analyses, we first regressed the count of economic strain and psychosocial consequences on mental health burden. Control variables were then added in a stepwise fashion to observe how the main effects of COVID-19-related economic strain and psychosocial consequences changed. Sensitivity analyses were also performed that controlled for participant age, which was found to have no effect on the outcomes or pattern of results. Given this and the small sample size, only parsimonious models are presented. All analyses were conducted using Stata SE version 16.

Results

Mental Health Need Among Latinx Young **Adults During the Pandemic**

During the first few months of the pandemic, Latinx young adults in Central Texas reported moderate levels of mental health symptoms, including psychological distress, global severity, somatization, depression, and anxiety (see Table 1). With respect to clinically significant outcomes, over one-quarter met criteria for serious psychological distress. Anxiety and somatization were the most common outcomes with nearly 15% of Latinx young adults reporting high symptoms on these domains. Less than 10% reported experiencing clinically significant depressive symptoms.

Latinx young adults started experiencing economic strain and psychosocial consequences due to COVID-19 early in the pandemic. This community sample of young adults reported that they or a family member experienced, on average, two economic consequences (e.g., lost a job, unable to pay rent, etc.) because of the pandemic (see Table 1). Psychosocial costs during the early months of the pandemic were less reported, with most Latinx young adults reporting less than two consequences amongst themselves or a family member.

COVID-19 Consequences on Levels of Symptoms

Table 2 presents the results of linear regression models examining associations of COVID-19 related economic strain and psychosocial consequences on levels of mental health symptoms. Adjusting for the model covariates, experiencing one additional COVID-19 psychosocial consequence was associated with a 1.45-point increase in total psychological distress symptoms (p <.01). In other words, the more psychosocial related consequences that occurred as a result of the pandemic, the higher the level of psychological distress observed. Similar patterns were seen for global severity, somatization, depressive, and anxiety symptoms: Psychosocial consequences were associated with incremental t-scores for these BSI-18 domains, likely indicative of worsening mental health burden for Latinx young adults. Economic strain resulting from the pandemic was associated only with

Ordinary Linear Regressions Examining Associations of COVID-19 Economic Strain and Psychosocial Consequences on Mental Health Symptoms, Latinx Wellness Study (February-August 2020; N = 83)

COVID-19 consequences and	Psycholo symptor	Psychological distress symptoms total score	Global so	Global severity index <i>t</i> -Score	Somatizat t-	Somatization symptoms <i>t</i> -Score	Depressi t-	Depression symptoms <i>t</i> -Score	Anxiety syn	Anxiety symptoms t-Score
participant characteristics	q	[95% CI]	q	[95% CI]	q	[95% CI]	p	[95% CI]	p	[95% CI]
# of COVID-19 consequences										
Economic strain $(0-\hat{9})$	0.11	[-0.41, 0.63]	0.74	[-0.18, 1.65]	0.73	[-0.16, 1.62]	0.19	[-0.72, 1.09]	1.06^{*}	[0.10, 2.01]
Psychosocial (0–6)	1.45**	[0.56, 2.34]	2.49**	[0.93, 4.05]	2.42**	[0.90, 3.94]	2.70***	[1.16, 4.24]	1.65^{*}	[0.01, 3.28]
Male	-2.21	[-4.92, 0.50]	1.86	[-2.89, 6.61]	2.55	[-2.08, 7.19]	1.50	[-3.20, 6.19]	1.07	[-3.90, 6.03]
Foreign-born	0.49	[-1.83, 2.80]	-0.14	[-4.20, 3.92]	1.10	[-2.87, 5.07]	-1.52	[-5.54, 2.50]	0.27	[-3.98, 4.52]
At least some college or more	I	[-4.23, 0.91]	-0.59	[-5.09, 3.92]	-0.63	[-5.04, 3.77]	-0.74	[-5.19, 3.72]	-0.39	[-5.11, 4.33]
Constant	8.10***	[5.38, 10.82]	44.57***	[39.80, 49.34]	44.10***	[39.44, 48.77]	45.95***	[41.23, 50.67]	45.25***	[40.26, 50.25]

anxiety symptoms. For an additional economic strain experienced by the young adult or a family member, there was over a one-point t-score increase in level of anxiety symptoms (p < .05).

COVID-19 Consequences on Clinically Significant Outcomes

Table 3 presents the results from logistic regression models examining how the COVID-19 consequences were related to the odds of meeting criteria for clinically significant mental health outcomes. Unlike level of mental health symptoms, there were fewer associations between COVID-19 consequences and clinical outcomes. Only economic strains were associated with clinically significant mental health outcomes (somatization and anxiety), net of the model covariates. Experiencing an additional economic strain as a result of the pandemic was associated with 36% and 43% greater odds of having high somatization and anxiety, respectively. The number of psychosocial consequences experienced was not correlated with clinically significant outcomes.

Discussion

COVID-19 economic and psychosocial stressors were associated with higher level of mental health symptoms, and in certain cases were correlated with clinically significant symptoms for our sample of Latinx young adults in Central Texas. The prevalence of 30-day serious psychological distress was 27% for the Latinx young adults in our sample, similar to the 25% prevalence rate found among Latinx adults of all ages in a national sample that took place in the first few weeks of the pandemic and used the same distress measure (McGinty et al., 2020). Conversely, our Latinx sample's prevalence rate of 27% stands in contrast to the 10.2% prevalence found for all adults in a second national study (Breslau et al., 2021), corroborating previous findings that Latinx individuals are disproportionately burdened by COVID-19 and its associated disruptions (Goodman et al., 2020; Macias Gil et al., 2020). The study by Breslau et al. (2021) also found that individuals with elevated levels of mental health symptoms prior to the pandemic were three times more likely to report elevated

Logistic Regressions Examining Association of COVID-19 Economic Strain and Psychosocial Consequences on Clinically Significant Mental Health Symptoms, = 83) Latinx Wellness Study (February-August 2020; N

COVID-19 consequences and	Serions	ous psychological distress	Global	Global severity index	Sor	Somatization		Depression	A	Anxiety
participant characteristics	OR	[95% CI]	OR	[95% CI]	OR	[95% CI]	OR	[95% CI]	OR	[95% CI]
# of COVID-19 consequences										
Economic strain $(0-9)$	1.13	[0.91, 1.41]	1.09	[0.84, 1.42]	1.36*	[1.05, 1.76]	1.16	[0.86, 1.55]	1.43**	[1.10, 1.87]
Psychosocial (0–6)	1.22	[0.82, 1.80]	1.50	[0.89, 2.55]	1.73	[0.98, 3.07]	1.36	[0.77, 2.39]	1.09	[0.64, 1.87]
Male	0.48	[0.12, 1.93]	1.63	[0.34, 7.80]	0.68	[0.10, 4.59]	2.62	[0.52, 13.14]	1.41	[0.29, 6.86]
Foreign-born	1.25	[0.44, 3.54]	5.06	[0.47, 9.00]	1.97	[0.41, 9.59]	1.05	[0.21, 5.27]	1.31	[0.32, 5.40]
At least some college or more	92.0	[0.24, 2.40]	0.34	[0.08, 1.50]	0.55	[0.10, 2.86]	0.45	[0.09, 2.25]	0.48	[0.11, 2.10]
* $p < .05$. ** $p < .01$.										

symptoms during the pandemic, suggesting that Latinx adults had baseline levels of distress that were exacerbated by the pandemic; and that COVID-19 worsened existing stressful conditions among this population (Cholera et al., 2020). Although Breslau et al. (2021) finding was not specific to Latinx young adults in their sample, it is consistent with other research finding that Latinx young adults experience more day-today difficulties that make them susceptible to psychological distress (Garcini et al., 2016; Torres et al., 2018). This is alarming because Latinx young adults have lower rates of mental health service utilization than their white counterparts and will likely experience prolonged burden from stressful conditions, which may then increase the possibility of sinking into greater poverty or exacerbate the struggle to get out of it (Maani & Galea, 2020). Thus, mental health cannot and should not be disentangled from pervasive and systemic forms of social marginalization.

Psychosocial consequences were strongly associated with levels of mental health symptoms, but fewer associations were found between psychosocial consequences and clinically significant outcomes. One explanation may be that clinically significant distress is infrequent in the population because thresholds have been established to reduce false positives and false negatives (Kupfer et al., 2013). Another is that in our study, there may not have been enough time between the beginning of the pandemic and our survey to detect clinically significant distress, particularly for depression which may have a more delayed onset than acute anxiety. In contrast, economic strains resultant from the pandemic were less often associated with symptom levels, relative to clinical outcomes. Economic consequences may have a more immediate effect on clinical outcomes than psychosocial consequences, which may deteriorate over time. We anticipate that there will be stronger economic effects in the short-term, but prevalent psychosocial effects over time and across different mental health manifestations. For example, future research may uncover higher rates of depression and PTSD among survivors of COVID-19 or those who lost family members to this illness. More studies are needed to examine the long-term effects of pandemic-related stressors on changes in mental health among Latinx young adults.

Finally, young adults in our sample may have accessed resources that helped them keep their distress from reaching clinical levels, including moving back in with their families, engaging interpersonal support, and finding respite from prepandemic hassles. In Latinx culture, the family is central to the lives of young adults, a value known as familismo. Although young adults in our sample reported levels of distress related to family economic and social impacts that were similar to distress from personal impacts, they also may have found comfort in family life and cultural practices. Research shows that familismo is protective against depression (Piña-Watson et al., 2019), and future research should explore the role of familismo in protecting Latinx young adults' mental health during the pandemic. Resourcefulness is another area that warrants further exploration as a buffer against clinically significant outcomes and a personal asset that Latinxs have developed throughout their lives to deal with chronic stressors (Cardoso & Thompson, 2010).

Limitations and Strengths

Despite its unique contribution, this study had several limitations that warrant discussion. First, this was a cross-sectional study, limiting our ability to make any causal inferences about the economic and social fallout of COVID-19 on the mental health of Latinx young adults. Mental health, especially clinically significant outcomes, may have evolved later in the pandemic, and our study was only able to capture the first 6 months. Future research is needed to elucidate on the longterm mental health outcomes in young adults associated with chronic stress during a pandemic or other disaster. It is important to note that data collection ended in the middle of the second surge of COVID infections in the U.S., during summer 2020; as such, we may have missed detecting additional mental health burden during this period. Second, our small sample size and limited representation of males reflect some of the difficulties encountered during the pandemic to recruit participants. We limited our sample to first- and second-generation immigrant young adults as they are significantly understudied in mental health research. However, this group represents a population that traditionally should be reached through conventional community-based and onthe-ground action efforts, which were challenging to accomplish in the remote/virtual world of the global pandemic. Although we were not able to recruit face-to-face because of shelter-in-place

measures and institutional temporary bans on face-to-face research, we did assemble a community advisory board and a youth council to enhance recruitment within the community. Lastly, the sample size was also affected by disruptions in data collection as we developed a new instrument on COVID-19 when data collection was ongoing. Although participants who completed the survey before the introduction of the COVID-19 instrument were invited to complete the new questionnaire at a later time, we were not able to reach everyone. Overall, more large-scale and longitudinal studies are needed to investigate both the short-term and long-term effects of economic and social COVID-19 stressors on mental health.

Despite these limitations, this study is one of the first to document how economic and social consequences directly associated with the COVID-19 pandemic are related to mental health burden in a high-risk sample of first- and secondgeneration immigrant Latinx young adults. Existing epidemiological research has only examined prevalence of and change in mental distress during the pandemic across different social groups (e.g., race/ethnicity, age, etc.), thereby making conjectures about how the fallout of the pandemic could explain elevation in mental health burden without formally testing these hypotheses. The present study advances this line of research by measuring the personal and family impacts of COVID-19, demonstrating the importance of family life in the mental health of Latinx young adults (Cardoso & Thompson, 2010) during the pandemic, and testing their direct relationships with mental health burden. The COVID-19 instrument developed for this study can now be a resource to other scholars wishing to examine long-term patterns of mental health burden in this and other populations as the pandemic continues to unfold. Additionally, it could be adapted to assess how other local, national, or global disasters impact personal and family life. Finally, our study focused on first- and second-generation immigrant young adults from a community sample, a population that often gets left out of epidemiological studies.

Implications

The expanded use of virtual platforms during the pandemic may allow mental health professionals to reach Latinx young adults for services in ways that were not possible before the pandemic (Wood et al., 2020). Latinxs have historically experienced poor access to quality mental health services, and young adults especially face limited options outside of pediatric or adult mental health specialty services (Benuto et al., 2019; De Silva et al., 2020). Improving access to services is a key priority during and post the COVID-19 pandemic, as PTSD and grief over loss of autonomy and loved ones has likely taken hold of Latinx young adults. Developmentally appropriate and culturally grounded services that are trauma-informed are crucial to the stability of this population, for this reason we are designing a virtual mental health promotion model that considers these drivers of young adult mental health. Involving family and peers in services, as well as natural healers and informal support sources, can enhance access to services, treatment engagement, and treatment outcomes.

Findings from this study call for immediate attention to policies that help mitigate the economic impact of COVID-19 (Wright et al., 2020). The federal stimulus bill under the administration of the 45th President of the U.S. hindered the wellbeing of Latinx young adults in two ways. One was by excluding dependents from receiving stimulus monies, thereby disqualifying many Latinx young adults living at home with their families from such assistance despite contributing to the family and national economy. The other was by denying payments to adults living in a household with individuals who used an Individual Tax Identification Number (ITIN) instead of a Social Security Number (SSN), an indicator of undocumented status (Cholera et al., 2020). Under the Biden administration, the latest coronavirus stimulus package expanded stimulus checks to dependents of any age, as such Latinx families who claimed dependents on their tax returns would be eligible to receive an additional \$1,400 per dependent. Undocumented immigrants with ITINs remain excluded from receiving federal aid. This anti-immigrant clause placed undocumented and mixed-status families, who were also at higher risk for the virus, to be even less protected and to experience a surge in psychological distress during a time of crisis. This lack of federal protections places states in a position to find solutions to support local undocumented families who greatly contribute to local economies. To this point, the state of California will soon be providing one-time \$600 economic

impact payment to undocumented families in the state (Bojórquez, 2020); state-funded pandemic aid such as this has not occurred in the state of Texas.

In Central Texas, the City of Austin initially issued rental and income assistance to families impacted by COVID-19 shelter-in-place measures, regardless of documentation status (Tabory et al., 2021). However, these bills did not originally provide additional income assistance to individuals exposed to and/or ill from the virus, making it difficult for those in frontline occupations without workplace protections (e.g., agriculture and construction) to stop working (McClure et al., 2020; Quandt et al., 2020; Tabory et al., 2021). This situation became a source of stress for the community, including young adults who often hold those occupations. These relief bills were also largely limited to Austin, leaving individuals in surrounding towns and counties unprotected. These inequities demand federal and state level support for undocumented immigrants in the U.S., and to better understand the challenges associated with immigration status in the mental health of Latinx young adults (Page & Flores-Miller, 2021), which is as a next step in our work.

Aside from the economic fallout experienced by Latinx young adults and their family during the early months of the COVID-19 pandemic (Center on Budget & Policy Priorities, 2021), disruptions to social life were also associated with poor mental health. Over one-quarter of our sample reported losing a significant relationship (i.e., romantic partner or friendship) as a result of the social distancing guidelines instituted during the pandemic. Although these disruptions may be temporary, for many in the U.S., social distancing guidelines led to feelings of social isolation and loneliness; over one in ten people in the U.S. reported being lonely during the first month (McGinty et al., 2020). For Latinx young adults, loneliness can be due, in part, to the disintegration of social relationships as well as having limited opportunities to interact with peers and build new social relationships, consistent with Latinx culture. As many colleges and universities in the U.S. transitioned from in-person to virtual instruction to mitigate the spread of COVID-19 across school campuses, opportunities for natural interactions with classmates were constrained and prevented social gatherings on campus (e.g., club meetings, sports events, etc.). Young adulthood is also a formative developmental period for fostering meaningful relationships with peers and prospective romantic partners, and the pandemic may have significantly hindered this development. Although our findings for psychosocial consequences on mental health risk were less robust for clinically significant mental health outcomes compared to level of symptoms, we could expect mental health to worsen as disruptions to social life continue without developing interventions that promote social well-being and connectedness in a socially distant and virtual world.

Conclusion

The existing epidemiological evidence on the ramifications of the COVID-19 pandemic overwhelmingly reveals that poor mental health has become a secondary pandemic. The present study advances understanding of how economic and social stressors associated with the COVID-19 pandemic may have elevated mental health burden among Latinx, immigrant young adults. Overall, COVID-19 economic and social stressors were associated with higher mental health symptoms, and in certain cases were correlated with clinically significant outcomes among the Latinx young adults in our sample. Due to working conditions that limit shelter-in-place measures and access to healthcare, Latinx young adults and their family members are not only disproportionately diagnosed with the virus, but they are also more likely to experience the economic and social consequences associated with the pandemic. Collectively, these findings suggest that the costs of the pandemic not only pertain to mortality but also to morbidity as it relates to deteriorating social circumstances and mental health, pointing to the need for policies, resources, and services to support those most affected.

Resumen

Los adultos jóvenes latinos de 18 a 25 años enfrentan desafíos únicos que los ponen de manera desproporcionada en un alto riesgo de sufrir consecuencias de salud, económicas y sociales debido a la pandemia del COVID-19. El estudio presente examinó cómo las consecuencias económicas y psicosociales a raíz de la pandemia se asociaron con problemas de salud mental en una muestra comunitaria de adultos jóvenes latinos (N=83) del centro de Texas. Los participantes completaron una encuesta en línea sobre experiencias relacionadas con el COVID-19 y necesidades de salud mental. La encuesta incluyó preguntas sobre las experiencias personales y familiares del COVID-19 en dos áreas importantes: (a) tensión económica

(por ejemplo, dificultades económicas, inseguridad alimentaria) y (b) carga psicosocial (por ejemplo, pérdida de relaciones, consumo de sustancias). Los análisis de regresión examinaron la asociación de las consecuencias del COVID-19 en el nivel de los síntomas de salud mental y los resultados clínicamente significativos. En comparación a las consecuencias económicas, las consecuencias psicosociales debido a la pandemia de COVID-19 se asociaron con niveles más altos de síntomas de salud mental. Por el contrario, en unos pocos casos, la tensión económica resultante de la pandemia se correlacionó con resultados clínicamente significativos en esta muestra. En conjunto, los hallazgos sugieren que los costos de la pandemia no solo se refieren a la mortalidad por enfermedad, sino también a la al deterioro de las circunstancias sociales y la salud mental. Los hallazgos de este estudio exigen atención inmediata para implementar políticas y programas que ayuden a mitigar las consecuencias económicas y socioemocionales del COVID-19, como el fácil acceso a recursos virtuales de salud mental de bajo costo para adultos jóvenes latinos.

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