Self-reported COVID-19 symptoms and perceived likelihood of suicide attempt among Latinx individuals who experience acculturative stress

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Abstract

The impact of COVID-19 has led to a substantial economic and psychosocial burden on the Latinx population. However, few studies have evaluated how COVID-19 symptoms may exacerbate suicide risk indicators among Latinx persons, or the particular social determinants of health facilitating such detrimental effects. The present study examined the association between self-reported COVID-19 symptoms and suicide likelihood (i.e., self-reported perceived likelihood that one will attempt suicide in the future) among Latinx individuals within a timeframe involving high COVID-19 contagion before the onset of vaccine dissemination. Further, the possible moderating role of acculturative stress in the association between COVID-19 symptoms and suicide likelihood was examined. The sample included 200 Latinx participants (67.5% male, M_{age} = 34.67 years, SD = 9.15) who completed self-report measures on COVID-19 symptoms, suicide likelihood, acculturative stress, depressive symptoms, trauma symptoms, somatic symptoms, and general COVID-19 emotional impact. Findings indicated that self-reported COVID-19 symptoms were positively associated with suicide likelihood. Further, the association between COVID-19 symptoms and suicide likelihood was moderated by acculturative stress, such that the association was only statistically significant at mean or higher levels of acculturative stress but was not significant among participants with lower acculturative stress. The moderation effect

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was statistically significant after controlling for sociodemographic factors, depressive symptoms, trauma symptoms, somatic symptoms, and the general emotional impact of the COVID-19 pandemic. The current findings indicate that, among Latinx individuals, acculturative stress is a key social determinant of health for marked psychological distress in the context of the COVID-19 pandemic.

Keywords

Latinx; Suicide risk; Acculturative stress; COVID-19

Suicide has increased nearly 70% for Latinx adults over the last decade (Khubchandani and Price, 2022), shifting the historically lower rates of suicide among Latinx adults compared to other ethnic groups (Centers for Disease Control and Prevention Web-Based Injury Statistics Query and Reporting System [CDC WISQARS, 2020]). Given the ongoing rise in suicide rates for Latinx persons and the psychological impact of the SARS-Coronavirus disease (COVID-19) pandemic, research investigating social determinants of health contributing to suicide risk during the COVID-19 pandemic for this population is imperative.

Since the outbreak of SARS-Coronavirus disease in 2020, racial and ethnic minority populations have been disproportionately affected by COVID-19 related physical health symptoms and, to date, 24.6% of all U.S. COVID-19 cases are represented by the Latinx population (Abuse, 2020; Despres, 2022). The experience of COVID-19 symptoms are associated with elevated psychological distress, lower life satisfaction (Thompson et al., 2022; Andersson et al., 2022), and increased fear and anxiety (Khan et al., 2022; Sethi et al., 2022; Zvolensky et al., 2022). Among Latinx persons specifically, the impact of COVID-19 has led to chronic illness and substantial psychosocial burden (Mayorga et al., 2022a; Mayorga et al., 2022b; Podewils et al., 2020; Villatoro et al., 2022). Altogether, Latinx persons who experience COVID-19 symptoms may therefore comprise a subpopulation that is vulnerable to mental health sequelae from the pandemic (e.g., suicide risk), particularly in adverse conditions associated with social determinants of health.

1. COVID-19 symptoms and suicide risk among Latinx individuals

Across the general population, the COVID-19 pandemic brought forth substantial economic stress, reduced social support and connectedness, barriers to mental health treatment, and medical problems, all of which foster suicide risk (Reger et al., 2020). Additionally, the experience of COVID-19 symptoms emerged as a risk factor for suicidal ideation and attempts (DeVylder et al., 2021; Sher, 2020b, 2020a). Persons who experienced COVID-19 symptoms during the height of the pandemic had concurrent, acute social isolation (i.e., additional restrictive measures to prevent contagion) and had novel and severe constraints on their ability to engage in adaptive coping strategies, both of which are theoretically relevant precipitants of suicidal distress (Joiner, 2005; van Orden et al., 2010; deCatanzaro, 1980).

Initial evidence has signaled the presence of racial and ethnic suicide-related disparities during the pandemic, including findings of elevated suicide risk among African American individuals (Bray et al., 2021), a significantly higher proportion of suicide deaths from

racial minority groups (Mitchell & Li, 2021), and psychosocial stress and suicidal ideation markedly affecting Latinx adults in a disproportionate manner (McKnight-Eily et al., 2021). Given that suicide rates among Latinx adults have steadily risen over the past decade (Garnett et al., 2022; Khubchandani and Price, 2022), there is a need to examine the relationship between COVID-19 symptoms and suicide risk among Latinx persons uniquely. Moreover, it is posited that COVID-19 impairment (i.e., the experience of symptoms) is likely to interact with more chronic vulnerabilities to result in suicide risk (Banerjee et al., 2021). One such vulnerability and a robust social determinant of health among Latinx individuals, is acculturative stress (Arbona et al., 2010; Gonzalez-Guarda et al., 2021; Mayorga et al., 2018; Rodriguez et al., 2022; Torres, 2010). Therefore, the current study examines the role of acculturative stress, in tandem with experiencing elevated levels of COVID-19 symptoms at the height of the pandemic, in predicting levels of a suicide risk indicator among Latinx individuals.

2. Acculturative stress and suicide risk among Latinx individuals

Acculturative stress involves the experience of stressors in the process of assimilating to a majority group's culture (Berry, 2006). These stressors include conflicts arising from the discrepancy between one's cultural values, beliefs, and goals and those which are mainstream to the host society, as well as interpersonal problems and discriminatory experiences. It is posited that acculturative stress threatens the stability of connectedness or a sense of belonging to a broader community and deteriorates familial support (Silva and Van Orden, 2018). Such social pressures and disconnectedness are theoretically and empirically implicated in the development of suicidal thinking as well (Van Orden et al., 2010; Buitron et al., 2016). Among Latinx persons, acculturative stress is thought to increase suicide risk by reducing ethnic identity, relationship networks, and other notable protective values, such as *familismo* (familial closeness) (Fortuna et al., 2016; Silva et al., 2022). In accord with this perspective, prior research found that acculturative stress interacted with psychological factors (experiential avoidance, depression) to predict suicide risk among Latinx and Black individuals (Zvolensky et al., 2016; Walker, 2007; Walker et al., 2008). Given the psychological consequences of acculturative stress for Latinx individuals, an examination of whether acculturative stress represents a key social determinant of health conducive to the negative psychological sequelae (e.g., suicide risk) from experiencing COVID-19 symptoms is warranted. To date, no work has evaluated how COVID-19 symptoms may exacerbate suicide risk among Latinx persons, or how acculturative stress may facilitate such detrimental effects.

3. Present study

The present study examined the association between self-reported COVID-19 symptoms and an indicator of suicide risk (i.e., self-rated perceived likelihood that one will attempt suicide in the future; hereon termed suicide likelihood) among Latinx individuals within a time frame involving high COVID-19 contagion before the onset of vaccine dissemination (mid to late 2020). Further, the possible moderating role of acculturative stress in the association between COVID-19 symptoms and suicide likelihood was explored. It was hypothesized that higher levels of self-reported COVID-19 symptoms would be associated with higher

levels of suicide likelihood, specifically among those with higher levels of acculturative stress. Conceptually relevant covariates included in the analysis were depressive symptoms (Ford-Paz et al., 2015), trauma symptoms (Davis et al., 2014), somatic symptoms (Torres et al., 2021), and general COVID-19-related emotional impact (DeVylder et al., 2021). The covariates related to mental health burden were added because they represent an alternative set of explanatory variables of suicide likelihood, and somatic symptom burden was added as a covariate because those with higher levels of chronic illness were at higher risk of severe COVID-19 illness. General COVID-19-related emotional impact was added as a covariate to parse the effect specific to self-reported COVID-19 symptoms and thereby control for miscellaneous emotional difficulties associated with the pandemic.

Findings from the proposed study would explicate the association between self-reported COVID-19 symptoms and suicide likelihood among Latinx individuals, and would position acculturative stress as a key social determinant of health in the context of the height of the COVID-19 pandemic.

4. Method

4.1. Participants

The present study included 200 Latinx persons (67.5% male, $M_{age} = 34.67$ years, $SD = 9.15$). All participants were recruited online, via an online survey panel program, Amazon Mechanical Turk (Mturk). Eligibility criteria included being between the ages of 18–65 years old, self-identifying as being of Latino/Latinx, or Hispanic ethnic background, indicating having current residence within the U.S and being able to provide informed consent. Exclusion criteria included being younger than 18 or older than 65, being a non-English speaker (to ensure full comprehension of study materials) and the inability to provide voluntary consent. This study was a secondary analysis of data from a larger project examining experiential avoidance and COVID-19 related fear among Latinx persons (Mayorga et. al., 2022).

The sample was predominantly Latinx White/Caucasian individuals (57.5%), followed by 21% identifying as Black/Afro-Latinx, 4% identifying as Asian Latinx, and 8.5% identifying themselves as "other." In terms of sexuality, the majority of the sample identified themselves as heterosexual (70.5%), 24% identified themselves as bisexual, and 3% declined to respond. The educational level for this sample was as follows: the majority (56%) reported obtaining a bachelor's degree, 27% reported obtaining a master's degree, 6.5% indicated they attended "some college", and 4.5% reported obtaining an associates degree. Finally, the majority of the sample reported being born in the U.S. (second generation Latinx; 97%).

4.2. Measures

Demographics Questionnaire.—Demographic information was collected to characterize the current sample. This information included age, gender, sexual orientation, ethnicity, and education.

Self-reported COVID-19 symptoms.—In terms of COVID-19 symptoms, participants were asked to self-identify whether they had experienced various COVID-19 related health

symptoms in the previous two weeks (e.g., "Please indicate if you have felt these symptoms in the past two weeks: I have had fever/chills"). A total of 17 items were chosen in reflection of the identified COVID-19 health symptoms by the Center for Disease Control and Prevention (CDC, 2020). Of note, $n = 101$ persons reported feeling tired/fatigue, $n = 27$ reported difficulty breathing when walking or doing light physical activities, and $n = 51$ reported losing their sense of smell or taste.

Suicide likelihood.—A Likert-type item assessing perceived likelihood of future suicide attempt was used as an indicator of suicide risk. The item states, "How likely is it that you will attempt suicide someday?" Possible responses range from 0 to 6, with the anchors of Never (0), Rather Unlikely (2), Likely (4), and Very Likely (6). Prior research has documented the validity of this suicide likelihood item. Specifically, there were statistically significant associations between this item and depressive symptoms (Becker, Holdaway, & Luebbe, 2018; Stanley et al., 2019), post-traumatic stress disorder symptoms and diagnosis (Stanley et al., 2019), impulsivity (Cole et al., 2019), suicidal ideation (Cole et al., 2019), prior suicide attempt (when suicide likelihood outcome dichotomized: Odds Ratio = 12.69; Rimes et al., 2018), and suicide risk (Roxborough et al., 2012; Stanley et al., 2019). Suicide likelihood using this item is also elevated among at-risk populations, including transgender and non-binary youth (Srivastava, Rusow, & Goldbach, 2021). 53.5% of participants endorsed non-zero responses, specifically $n = 20$, $n = 28$, $n = 18$, $n = 23$, $n = 9$, $n = 8$ for responses 1 through 6, respectively. Endorsement of explicitly affirmative responses (starting at 'Likely') on the suicide likelihood item in the current measure was aligned with contemporaneous CDC data on suicidal ideation among Latinx persons (McKnight-Eily et al., 2020). Our current study data shows explicitly affirmative responses among 20% of participants (n=40), and the CDC data from April-May 2020 similarly indicates 22.9% endorsement of a binary suicidal ideation measure among Latinx respondents.

Acculturative stress.—The Social, Attitudinal, Familial, and Environmental Acculturation Stress Scale (SAFE; Mena, Padilla, and Maldonado, 1987) was utilized to assess level of self-reported acculturative stress. The SAFE captures acculturative stress across a variety of contexts including, Social, Attitudinal, Familial, and Environmental. A sample item is, "I feel uncomfortable when others make jokes about or put down people of my ethnic background." In past work on Latinx populations, the SAFE has demonstrated good internal reliability and construct validity amongst clinical and non-clinical Latinx samples as well as Latinx immigrant samples (Hovey & Magaña, 2000; Negy et al., 2010). Items capturing severity of acculturative stress are scored on a 5-point Likert type scale ranging from 1 (not stressful) to 5 (extremely stressful). A total score was summed across all items and higher scores were indicative of higher levels of global acculturative stress. Individuals were able to skip an item if it did not apply. The SAFE evidenced excellent internal consistency in the current sample ($\alpha = 0.98$).

Depressive symptoms.—The Overall Depression Symptom and Impairment Scale (ODSIS; Bentley et al., 2014) was employed to capture depressive symptoms within the sample. The ODSIS is a 5-item self-report measure that assesses past-week depression symptoms and any functional impairment engendered by these symptoms. A sample item

is, "In the past week, how often have you felt depressed" Respondents are asked to rate their symptom impairment on a scale from 0 (none) to 4 (extreme/constant). The ODSIS has demonstrated good psychometric properties in past work that include high internal consistency and convergent and discriminant validity in clinical and non-clinical samples (Bentley et al., 2014). In the current sample demonstrated excellent internal consistency (α = .88).

Trauma symptoms.—The Posttraumatic Stress Disorder Checklist, Civilian Version, or PCL-C (Weathers et al., 1994) is a self-report measure that assesses severity of PTSD symptoms. Respondents are asked to reflect on the past month and rate how much they are distressed by their symptoms in response to an unspecified traumatic experience (e.g., "How much have you been bothered by feeling distant or cut off from people"). This measure consists of 17 items and each item is scored on a 5-point Likert-type scale ranging from 1 (not at all) to 5 (extremely). The total score is computed by summing all items. The PCL-C has been proven as a reliable and valid measure in previous work (Conybeare et al., 2012) and demonstrated good internal reliability in the current sample (α = .96). Of note, this measure does not establish clinical diagnosis of PTSD.

General COVID-19 emotional impact.—The Emotional Impact of COVID-19 (EIC) was created by the current research team and utilized in previous work (Mayorga et al., 2022a) to capture severity of emotional distress across three areas including emotional distress related to the COVID-19 outbreak, social distancing, and economic impact. The current study utilized the emotional distress scale. Four items inquired over an individual's emotional impact as it related to the specified domain (e.g., "Related to the COVID-19 outbreak, please rate your [emotion]". The 4 emotions specified included loneliness, anger, fear, and sadness. Each item was scored from 0–100 (e.g., "Related to the COVID-19 outbreak, please rate your loneliness, anger, fear, sadness from 0–100"). Global emotional distress total was computed by averaging all items on the EIC and utilized as a covariate in the current work (α = .97).

Somatic symptoms.—The Somatic Symptom Scale (SSS; Gierk et al., 2014) was employed to capture somatic symptom burden within the sample. The SSS is an 8-item self-report measure that assesses past-week somatic symptoms with a Likert-type response scheme. The SSS queries respondents about stomach/bowel problems, back pain, pain in one's arms, legs, and joints, headaches, chest pain or shortness of breath, dizziness, feeling tired or having low energy, and trouble sleeping. The SSS has demonstrated good internal reliability and construct validity in past work (Gierk et al., 2015) and in the current sample demonstrated excellent internal consistency (α = .93).

4.3. Procedure

Participants were recruited online from across the U.S. via Mturk within the timeframe of June to November of 2020. Mturk screened participant profiles according to listed eligibility criteria for the study, if participants met criteria for the study, they were sent an invitation to read further information for participation. Mturk is an online survey management system that has been found to yield valid and representative data (Kim & Hodgins, 2017) and

past work has identified Mturk to yield equitable levels of Latinx persons in comparison to the U.S. Census data (Qureshi et al., 2022). If interested, participants consented to take part in the study and completed a survey with an approximate duration of 60 minutes. Participants were compensated $4.00 for completion of the survey. To further ensure quality of the data, participant profiles were further screened for the following criteria: (1) had never been blocked from a study, (2) performed at more than 90% accuracy on other studies, and (3) passed a Human Intelligence Test (HIT), such as identifying pictures or filling in a CAPTCHA test. Next, IP addresses were obtained to prohibit duplicate responses. Responses were omitted based on missing information, whether participants responded incorrectly to three out of four quality check questions, completion time being less than 10 minutes, or evidence of nonsensical responses. The study protocol was approved by the Institutional Review Board at the supporting institution.

4.4. Data analysis

Missing data due to skipped items occurred at a low frequency for all measures: COVID-19 symptoms (0%), suicide likelihood (0.5%), acculturative stress (3%), depressive symptoms (0%), trauma symptoms (1%), somatic symptoms (0%), COVID-19 emotional impact (0%). Missing data was estimated using multivariate imputation by chained equations (Buuren & Groothuis-Oudshoorn, 2011). Bivariate associations between study variables were tested via Pearson correlations. Multivariate regression analyses were conducted to test independent main effects of study variables on suicide likelihood. Moderation analysis was tested using PROCESS for R (Tingley et al., 2014). PROCESS calculates simple slopes 1SD above and below the mean. The following R packages and macro were used in analysis: mice v3.14, stats v3.6, process v4.20.

Predictors in the moderation analysis were COVID-19 symptoms, acculturative stress, and the COVID-19 symptoms and acculturative stress interaction. Depressive symptoms, trauma symptoms, and general COVID-19 emotional impact were selected a priori and included as covariates. Sociodemographic factors (i.e., age, gender, sexual orientation, education) were also added as covariates in the moderation analysis.

5. Results

Means, standard deviations, and correlations between variables are presented in Table 1. In bivariate analyses, suicide likelihood was associated with COVID-19 symptoms, acculturative stress, depressive symptoms, trauma symptoms, somatic symptom burden, and general COVID-19 emotional impact. In multivariate linear regression analyses with main effects only, suicide likelihood was associated with COVID-19 symptoms (B=.09, SE=.03, t=2.91, p<.01) and somatic symptom burden (B=.35, SE=.18, t=1.99, p<.05), but was not associated with depressive symptoms (B=.07, SE=.04, t=1.77, p=.08), acculturative stress (B=.01, SE=.01, t=1.47, p=.14), trauma (B=.11, SE=.23, t=−0.49, p=.62), or general COVID-19 emotional impact (B=−.01, SE=.01, t=−1.08, p=.28).

The moderation statistical model is presented in Table 2. Analyses indicated that the COVID-19 symptoms X acculturative stress interaction was statistically significant. Simple slopes were examined to probe the interaction and are displayed in Table 2. The association

between COVID-19 symptoms and suicide likelihood was not statistically significant at one standard deviation below the mean of acculturative stress. However, the COVID-19 symptoms and suicide likelihood association was statistically significant and positive among individuals experiencing mean or one standard deviation above the mean levels of acculturative stress. The statistical significance and direction of the moderation effect was the same with and without the covariates (i.e., depressive symptoms, trauma symptoms, somatic symptom burden, COVID-19 emotional impact, and sociodemographic factors).

6. Discussion

The current findings provide evidence of significant associations between self-reported COVID-19-related symptoms, acculturative stress and a suicide risk indicator (i.e., perceived likelihood of future suicide attempt) among Latinx individuals. Specifically, results fall in line with the hypothesized moderation model in which self-reported COVID-19 symptoms are associated with suicide likelihood among Latinx individuals who experience elevated levels of acculturative stress. These associations were evident above and beyond the variance explained by key covariates relevant to psychological distress in the context of the pandemic (i.e., sociodemographic factors, depressive symptoms, trauma symptoms, somatic symptoms, and the general emotional impact of the COVID-19 pandemic).

Acculturative stress appears to have represented a context conducive toward amplified psychological distress (i.e., increased perception of suicide likelihood) associated with being symptomatic during the pandemic. It is possible that the experience of COVID-19 symptoms was proximally associated with acute self-isolation (e.g., following self-quarantine recommendations) which, among those who have higher levels of acculturative stress, could have produced a window of increased suicide risk. In the context of pandemic-related economic uncertainty, it is also possible that experiencing COVID-19 symptoms could have fostered an acute sense of one's liability to others (e.g., burdening others with a need for care, increasing the possibility of contagion for family members, worrying about becoming a financial burden to others). These possibilities are consistent with explanatory accounts of suicidal desire which emphasize the role of negative interpersonal cognitive-affective states (Joiner, 2005; Van Orden et al., 2010). Moreover, acculturative stress could have represented the confluence of weakened perceived social support, chronic social disconnectedness (Silva and Van Orden, 2018), decreased reliance upon familial networks (Crockett et al., 2007), and heightened risk for cognitive-affective vulnerability (Polanco-Roman & Miranda, 2013; Stein et al., 2012; Young, 2016). The compounding of psychological and physical distress related to elevated levels of acculturative stress and higher COVID-19 symptoms, in the context of the height of the pandemic, could have led to a state of hopelessness about one's general distress, thereby increasing suicidal desire (Klonsky and May, 2015). Of note, general emotional distress related to the pandemic was not explanatory of suicide likelihood in the multivariate analysis, consistent with the idea that general distress indicators do not adequately explain suicide risk. It is possible that the combination of recent COVID-19 symptoms and acculturative stress was a marker of suicide-specific risk factors (e.g., acute social isolation, constrained adaptive coping, chronic social disconnection) that accounted for variance in suicide likelihood better than general pandemic distress.

As of November 2022, there are more than 4,000 daily COVID-19 hospitalizations in the U.S. (CDC, 2022, COVID Data Tracker, 2022) and recent data indicates that 14.7% of those infected develop persistent symptoms (Perlis et al., 2022). Therefore, the psychological impact of COVID-19 is likely ongoing and affecting vulnerable subgroups. The current study indicates that one subgroup in the U.S. Latinx population that needs targeted support is those who have pre-existing stress tied to acculturation, interpersonal, and discrimination factors. Clinically, the current data provide support for implementing nuanced screening procedures that capture acculturative stress levels among those experiencing COVID-19 related symptoms. Such procedures can identify potential opportunities for behavioral health referrals and interventions, particularly within primary care centers, as such facilities are a first line treatment source for many Latinx individuals. There is also a need to evaluate the extent to which this vulnerable subgroup is experiencing distal effects from the height of the pandemic. As researchers continue to unpack data on mental health outcomes collected from the pandemic, the current study provides initial insight into the possible deleterious effect from acculturative stress which may have driven facets of racial and ethnic mental health disparities during the pandemic.

The current findings should be considered in light of the study's limitations. First, the cross-sectional design precludes conclusions regarding the directionality of associations. Second, the current study employed a single item indicator of suicide risk which may limit statistical power. Third, the COVID-19 symptoms scale was retrospective (i.e., over the last two weeks) which makes it subject to recall bias. Fourth, the sample was composed of predominantly male Latinx persons, those with higher educational background, mostly second immigrant generation status individuals, and those who are fluent in English. Therefore, future work would benefit from evaluating the current model across a wide variety of Latinx subpopulations and with a more balance gender sample. It would also be important to evaluate this model across diverse identified Latinx sexual minority groups considering the high percentage of individuals that identified as non-heterosexual in this sample (24%). Fifth, it is important to note that although the ODSIS has demonstrated good psychometric properties in past work amongst ethnically and racially diverse clinical and non-clinical samples (Bentley et al., 2014), it has yet to be psychometrically evaluated within a Latinx population sample uniquely. Last, the generalizability of the current findings to samples with different levels of clinical severity (e.g., clinical samples) or different racial/ ethnic compositions is unknown and overall generalizability may be limited due to sample size.

The current study is the first to elucidate a key social determinant of health (i.e., acculturative stress) in which self-reported COVID-19 symptoms and an indicator of suicide risk (i.e., suicide likelihood) were associated among Latinx individuals during the height of the pandemic. The findings suggest the need for tailored preventive and targeted measures focused on vulnerable subgroups within marginalized populations, including Latinx individuals who experience COVID-19-related and acculturative stress.

Funding Details:

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Table 1

Means of, standard deviations of, and correlations between study variables.

	1	2	3	4	5	6	7	8	9	10	11
1. Suicide risk	–										
2. COVID-19 symptoms	.44*	–									
3. Acculturative stress	.37*	.34*	–								
4. Depressive symptoms	.42*	.48*	.48*	–							
5. Trauma symptoms	.39*	.42*	.70*	.65*	–						
6. Somatic symptoms	.46*	.53*	.62*	.66*	.73*	–					
7. COVID-19 emotional impact	.25*	.36*	.60*	.51*	.62*	.50*	–				
8. Age	.05	.18*	.00	.03	.04	.07	.11	–			
9. Gender	-.01	-.10	-.03	-.09	.04	-.10	.05	-.04	–		
10. Sexual orientation	.28*	.26*	.25*	.19*	.30*	.29*	.21*	.01	-.01	–	
11. Education	.21*	.23*	.32*	.26*	.31*	.25*	.29*	.06	.03	.22*	–
Mean	1.60	4.64	75.32	8.61	2.09	1.79	59.33	34.67			5.99
Range	0–6	0–15	24–120	0–18	0–3.59	0–3.63	0–100	18–67			2–8
SD	1.85	4.36	24.69	4.61	0.92	1.09	24.35	9.14			1.04

Note:

*
$p < .05$.

Gender coded as 1 = female, 0 = male/other. Sexual orientation coded as 1 = gay, lesbian, bisexual, 0 = heterosexual.

Table 2

Moderation model predicting suicide risk.

Model: R^2 = .329, p < .0001	Est.	S. E.	t	p	LCI	UCI
COVID-19 symptoms	.076	.033	2.315	.022 *	.011	.140
Acculturative stress	.015	.008	1.920	.056	−.0004	.030
Interaction term	.003	.001	2.365	.019 *	.001	.006
Depressive symptoms	.069	.035	1.955	.052	−.001	.139
Trauma symptoms	.004	.221	0.019	.985	−.432	.440
COVID-19 emotional impact	−.008	.006	−1.239	.217	−.020	.005
Somatic symptoms	.269	.172	1.562	.120	−.071	.608
Age	.002	.012	0.167	.868	−.023	.027
Gender	.304	.247	1.232	.219	−.183	.790
Sexual orientation	.374	.264	1.417	.158	−.147	.894
Education	.126	.118	1.072	.285	−.106	.358
Simple slopes at different levels of acculturative stress						
1 *SD* below the mean	.003	.051	.066	.949	−.096	.103
At the mean	.076	.033	2.315	.022 *	.011	.140
1 *SD* above the mean	.148	.039	3.872	.0001 *	.073	.224

Note. The model included a constant. R2 change due to interaction term = .02. *Est.*= Estimate, *LCI/UCI*= Lower/upper confidence interval, *S.E.*= Standard error.

*
denotes statistically significant *p*-value.