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BRIEF REPORT

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Objectives: Coronavirus disease (COVID-19) has had a disproportionately negative impact on communities of color across the U.S., including Mexican Americans. The present study examined the influence of the pandemic on family relationships among individuals living in the U.S.–Mexico border region and how changes in family relationships were related to both familism values and mental health. *Method:* Two hundred ninety-one college Latino students participated in a survey that asked about changes in family relationships and mental health since the beginning of the pandemic. *Results:* Contrary to our initial hypothesis, the majority of respondents indicated their family relationships had not changed since the beginning of the pandemic. However, those who reported negative changes in their family relationships also reported worse mental health whereas those who reported positive changes reported higher familism values. Mediational models revealed an indirect effect of familism support values on depression via changes in family relationships. *Conclusions:* Although cross-sectional, these results provide preliminary evidence of the impact of the COVID-19 pandemic on the mental health of Mexican Americans in the border region, as well as cultural factors that promote resilience in times of stress.

Public Significance Statement
Coronavirus disease (COVID-19) has had a disproportionately negative impact on communities of color across the U.S., including Mexican Americans. Findings suggest positive and negative shifts in family relationships since the beginning of the pandemic among Mexican Americans are related to both cultural values of familism and mental health, including depression and anxiety.

In March of 2020, coronavirus disease (COVID-19) was acknowledged by the World Health Organization (2020) and resulted in approximately 375,000 deaths in the United States by the end of 2020 (Podewils et al., 2020). The pandemic affected all domains of life, including economic development and businesses, tourism, education, healthcare, and individuals' daily social lives. On March 13, 2020, a state of emergency was declared in El Paso, Texas, which primarily resulted in schools moving to online learning, although no positive cases had been confirmed in the county at the time (Montes, 2020; Smith, 2020). El Paso experienced a later surge in October and early November of 2020 with a record high number of cases requiring hospitalizations and intensive care treatment along with a record high number of deaths from COVID-19, resulting in the need for several mobile morgues (Booker, 2020; El Paso County Public Health, 2021; Garcia, 2020; Goodman, 2020). Closure of schools and restrictions of businesses and restaurants significantly changed the dynamic of people's social and family lives throughout the pandemic. Because these closures resulted in more time at home with family for many individuals and because extended time with family members could have either a positive or negative effect on those relationships, the present study examined changes in family relationships and their impact on mental health on Mexican Americans in El Paso, Texas, a border community where Mexican Americans compose the majority of the population.

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COVID-19 has had a disproportionately negative impact on communities of color across the nation (Liu & Modir, 2020), including Mexican Americans. For example, according to the Centers for Disease Control and Prevention, from March 6 to October 6, 2020, the majority of adult cases of COVID-19 (54.8%), hospitalizations (62.1%), and deaths (51.2%) in Denver, Colorado, were among Hispanic individuals, despite Hispanics only composing 24.9% of the population (Podewils et al., 2020). This is in part due to elevated risk for exposure, as Hispanics tend to live in large households and work in essential industries where they are at risk for contracting and spreading the disease (Podewils et al., 2020). Early studies on the impact of COVID-19 in other communities around the world have shown a significant impact of the pandemic on stress, anxiety, and depression (Elmer et al., 2020; Odriozola-González et al., 2020; Wang et al., 2020), but little research thus far has examined the impact among Hispanic communities in the U.S. Thus, we examined how the pandemic has affected mental health among Mexican Americans, including symptoms of depression and anxiety. Additionally, given the impact of the pandemic on multiple ecological levels, including individual, interpersonal, and societal levels, we examined how family units have responded to the stress of the pandemic and whether changes in family relationships, either positive or negative, impact mental health.

An important factor to consider in how families respond to a stressor of this magnitude is the role played by familism, an important contributor to both the structure and function of family relationships, and Latinos' mental health. Familism refers to the cultural emphasis on one's family as a main source of emotional and instrumental social support when needed, including elements of loyalty, reciprocity, and solidarity within one's family (Cortes, 1995; Lugo Steidel & Contreras, 2003). Many Mexican Americans tend to have strong family ties that extend past the immediate family, which includes grandparents, cousins, aunts/uncles, and nieces/nephews. Additionally, close-knit family groups tend to live in close proximity to one another, most often in the same households. These strong family ties act as both the primary social system and the primary support system (Comeau, 2012).

Familism has been conceptualized as three correlated but distinct facets, examined in prior research: (a) Desire to maintain emotionally close and supportive family relationships (support); (b) The importance of tangible caregiving (obligation); and (c) The reliance on the family to define the self (referent; Knight et al., 2010; Sabogal et al., 1987). When these facets are examined together, familism has been shown to have a protective effect by promoting resilience among those experiencing acculturative conflict (Piña-Watson et al., 2019) and is related to lower levels of internalizing symptoms, depression, and suicidality (Katiria Perez & Cruess, 2014; Valdivieso-Mora et al., 2016; Zeiders et al., 2013). However, different facets of familism may contribute uniquely to different outcomes, especially when people are under duress. For example, Diaz and Niño (2019) recently found in an urban pan-Hispanic sample that familism support values were related to more positive mental health whereas family as referent values had the opposite relationship and familism obligation values had no relationship with mental health outcomes. Other studies have similarly shown unique effects of separate facets of familism on mental health (Corona, Campos, et al., 2017; Sayegh & Knight, 2011; Zeiders et al., 2013). Thus, we examined how support, obligation, and referent familism values were related to changes in family relationships and mental health separately.

We hypothesized that stronger familism values (specifically, familism support) would be related to more positive mental health outcomes (specifically, anxiety and depression), based on previous literature. Additionally, we examined how changes in family relationships coinciding with the onset of the pandemic may be important in how familism influences mental health during this time of upheaval, especially for Mexican Americans for whom family relationships play an important part. We predicted stronger familism support values would contribute to more positive changes in family relationships following the onset of the pandemic when family members spent more time together than usual, whereas obligation and referent values may have the opposite or no relationship, because of additional stress or burden individuals with high obligation or referent values may experience. We then expect positive changes in family relationships to result in more positive mental health outcomes. Specifically, we will test change in family relationships as a mediator of the relationship between familism values on mental health.

Method

Participants

Two hundred ninety-one college students (70 men, 220 women, and 1 trans/nonbinary) who identified as Hispanic or Latino were recruited using the Psychology Department SONA system at the University of Texas at El Paso and participated for course credit. Data were collected from October to December 2020 (roughly 7–9 months following the first lockdown procedures were enacted in the U.S., including in El Paso). The majority of the participants were Mexican American (98.6%) and lived with family members at the time of survey completion (86.6%). Participants ranged in age from 18 to 50 years old ($M = 21.4$) and most were born in the U.S. (91.4%). All study materials and procedures were approved by the University of Texas at El Paso Human Subjects Institutional Review Board.

Measures

The survey was administered via Qualtrics and took approximately 30 min to complete. The survey included background and demographic items, as well as various scales related to mental health, family relationships, and racial discrimination. Only measures relevant to the present study are reported here. A complete list of all measures administered can be found in the Supplemental Materials.

Depression Symptoms

Symptoms of depression were measured with the nine-item Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001). Participants were asked how often they were bothered by various problems in the past 2 weeks, such as "Feeling bad about yourself—or that you're a failure or have let yourself or your family down." Participants responded using a scale of 0 (*not at all*) to 3 (*nearly everyday*). Internal consistency was acceptable ($\alpha = .89$). Items were summed to create a composite score where higher scores indicated higher levels of depression. This scale has been validated for use among Latino/Hispanic Americans (Granillo, 2012; Keum et al., 2018; Merz et al., 2011; Patel et al., 2019).

Anxiety Symptoms

Symptoms of generalized anxiety were measured with the seven-item generalized anxiety disorder (GAD-7; Spitzer et al., 2006). Participants were asked how often they were bothered by various problems in the past 2 weeks, such as "Feeling nervous, anxious or on edge." The same response scale as the PHQ-9 was used. Internal consistency was acceptable ($\alpha = .92$). Items were summed to create a composite score where higher scores indicated higher levels of anxiety. This scale has been validated for use among Latino/Hispanic Americans (Mills et al., 2014).

Family Relationships

Participants were asked if their relationship with their family had changed since the beginning of the pandemic ($0 = no$, $1 = yes$). If they indicated that their family relationship had changed, they were asked if things got better or worse. These two items were combined to create a variable indicating whether individuals experienced a form of change ($1 = positive change$, $-1 = negative change$) or not ($0 = no change$) since the beginning of the pandemic. Participants were additionally allowed to describe those changes using a follow-up open-ended item, although these text responses were not formally analyzed.

Familism Values

To assess familism, we used the three familism subscales in the Mexican American cultural value scale (Knight et al., 2010): *support* (6 items), *obligation* (5 items), and *referent* (5 items). Participants indicated their agreement from 1 (*not at all*) to 5 (*completely*) with a number of statements, such as "Family provides a sense of security because they will always be there for you" (support), "If a relative is having a hard time financially, one should help them out if possible" (obligation), and "A person should always think about their family when making important decisions" (referent). Internal consistency was acceptable for each scale (support $\alpha = .84$; obligation $\alpha = .72$; referent $\alpha = .81$). Items in each subscale were summed separately to create composite scores for each facet where higher scores represented stronger familism values.

Results

De-identified data and code used for analyses are available at (https://github.com/hivolpertes/FamilismCOVIDSurveyStudy). Bivariate correlations examining the relationships between familism and mental health are presented in Table 1. The three facets of familism were highly intercorrelated, as were depression and anxiety symptoms. Both the obligation and referent subscales of familism were inversely related to depression and anxiety symptoms. Surprisingly, the support subscale was not significantly related to either anxiety or depression symptoms.

Regarding change in family relationships since the beginning of the pandemic, the majority of participants reported no change (60.8%), 28.2% reported a positive change, and 11% experienced a negative change. Examples from the open-ended responses are presented to illustrate positive changes (e.g., "We used to never really socialize with each other and ever since the lockdown and being around each other most of the day we became closer") and negative changes (e.g., "More fights occur due to the family always being around each other with very little breaks apart").[1]

These changes in family relationships had implications for mental health. A one-way analysis of variance (ANOVA) comparing symptoms of depression reported by participants in each of the three groups (positive change, negative change, and no change in family relationships) showed a significant difference in depression symptoms reported by each group, $F(2, 288) = 4.25$, $p = .015$, $\eta^2 = .03$. Specifically, those who experience negative changes in their family relationships ($M = 12.81$) reported higher levels of depression symptoms relative to those who experienced no change ($M = 9.47$) or positive change ($M = 9.43$). A similar analysis showed only marginal differences in anxiety as a function of the group, $F(2, 288) = 2.78$, $p = .064$, $\eta^2 = .02$, although the pattern was similar (higher anxiety in the negative change group relative to the other two groups).

To see how these changes in family relationships were related to familism values, we similarly compared each of the three facets of familism reported by participants across the three groups. Familism support values significantly differed across the groups, $F(2, 288) = 5.89$, $p = .003$, $\eta^2 = .04$, such that support values were higher among those who experienced positive change ($M = 24.7$) relative to those who experienced negative change ($M = 23.2$) or no change ($M = 22.7$). A similar pattern emerged for the obligation subscale, $F(2, 288) = 5.71$, $p = .003$, $\eta^2 = .04$, where those who experienced positive change also reported higher levels of obligation values ($M = 18.9$) relative to those who experienced negative change ($M = 17.7$) or no change ($M = 17.3$). No differences were found in referent values between the three groups, $F(2, 288) = 1.14$, $p = .322$, $\eta^2 = .01$.

Mediational Models

To examine the mediational hypothesis that increased familism indirectly influenced mental health through changes in family relationships during the pandemic, we fit three structural equation models, one with each facet of familism as the predictor, change in the family relationship as a categorical mediator, and depression and anxiety symptoms as the outcome variables (see Figures 1–3) using MPlus Version 8.6 (Muthén & Muthén, 1998–2017). Correlated residuals were included in all models because of the high correlation between depression and anxiety symptoms. Reported confidence intervals for direct and indirect effects were calculated using bias-corrected bootstrapping (Mackinnon et al., 2004). Model fit indices were acceptable for all three models, $\chi^2(6) = 76.9 - 88.1$, ps $< .001$, comparative fit index; CFI/Tucker-Lewis index; TLIs = 1.00, root mean square error of approximation; RMSEAs = .000. As seen in the bivariate correlations (Table 1), familism obligation and referent values both had an inverse direct effect on both depression and anxiety symptoms, suggesting a protective effect, whereas there was no direct effect between support values and either mental health outcome (Table 2). Only two indirect effects were seen: (a) the indirect effect of support values on depression and (b) the indirect effect of referent values on anxiety, both through changes in family relationships.

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[1] These examples are provided to illustrate the types of changes some participants experienced. However, no formal qualitative analysis was conducted, as data were not collected in accordance with formal qualitative procedures and only 39.2% of responses included open-ended text.

Table 1
Bivariate Correlations

Variable	Familism (support)	Familism (obligation)	Familism (referent)	Depression symptoms	Anxiety symptoms
Familism (support)	—				
Familism (obligation)	0.73***	—			
Familism (referent)	0.68***	0.76***	—		
Depression symptoms	−0.07	−0.13*	−0.17**	—	
Anxiety symptoms	−0.08	−0.13*	−0.16**	0.78***	—

* $p < .05$.   ** $p < .01$.   *** $p < .001$.

Discussion

The present study examined the effects of the COVID-19 pandemic on changes in family relationships and mental health. In contrast to our expectations, the majority of participants did not experience any change in their family relationships throughout the course of the pandemic (about 60%). If familism does operate as a stabilizer of family relationships, it is possible that Mexican American families were able to weather the stress of the pandemic, resulting in fewer disrupted relationships. Since familism values are reported at higher levels among Latinos than European-origin non-Latinos in general (e.g., Campos et al., 2014; Corona, Campos, et al., 2017; Sayegh & Knight, 2011), it is possible that familism had a protective effect across the whole sample. Unfortunately, since non-Latino Americans were not included in our sample, we could not directly compare the proportion of Mexican Americans that reported no changes in family relationships to non-Latinos, who may have experienced higher levels of family disruption. However, for those who did experience some form of change in their family relationships, this change had implications for mental health. Specifically, those who reported negative changes in their family relationships since the beginning of the pandemic reported higher levels of depression and marginally higher levels of anxiety than those experiencing no change or positive change.

These changes in family relationships seem to be related, at least in part, to familism values, as those who reported positive changes in their family relationships also reported higher levels of the support and obligation facets of familism values. This is consistent with previous literature linking high familism values with positive outcomes, including family cohesion (Edwards & Lopez, 2006; Gonzales et al., 2011; Knight et al., 2015; Li, 2014).

Additionally, familism is related directly to mental health, although in somewhat inconsistent ways. When looking at each

facet separately, the bivariate correlations showed that obligation and referent values, but not support values, were each inversely related to both depression and anxiety, suggesting a protective effect. This pattern was additionally reflected in the mediational models, which showed significant direct effects of obligation and referent values on both depression and anxiety. The benefit of obligation for mental health in particular contrasts with previous literature showing the opposite relationship, especially during times of stress, when high levels of obligation may contribute to additional strain or burden (Burton, 2007; Milan & Wortel, 2015; Sayegh & Knight, 2011). However, some literature suggests that values of familial obligation in Latino families can provide a sense of purpose, meaning, and connection with the family, especially for Latinas (Cupito et al., 2015; Telzer et al., 2015; Telzer & Fuligni, 2009). Strong obligation values may also result in less intergenerational conflict within the family, lowering risk for poor mental health (Castillo et al., 2008; Phinney et al., 2000; Rivera et al., 2008).

Surprisingly, there was no bivariate correlation or direct effect of support values on either facet of mental health. Studies that have examined the impact of obligation, referent, and support values on mental health generally show a positive benefit of support values, such that higher support values predict lower levels of anxiety or depression (Corona et al., 2017; Diaz & Niño, 2019; Zeiders et al., 2013). However, we did find a significant indirect effect, such that higher familism support values did contribute to fewer depression symptoms, as mediated by changes in family relationships. This indirect relationship is consistent with our hypotheses and suggests that individuals with stronger familism support values experienced more positive changes in their family relationships, which resulted in a protective effect on depression.

Unexpectedly, we additionally found an indirect relationship between familism referent values and anxiety, but not depression,

Figure 1
Structural Equation Model Examining Direct and Indirect Effects of Familism Support Values on Depression and Anxiety Symptoms (Model 1)
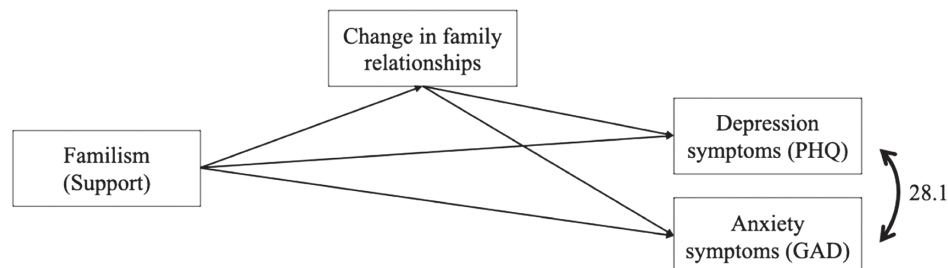
Note.   GAD = generalized anxiety disorder; PHQ = patient health questionnaire.

Figure 2

Structural Equation Model Examining Direct and Indirect Effects of Familism Obligation Values on Depression and Anxiety Symptoms (Model 2)
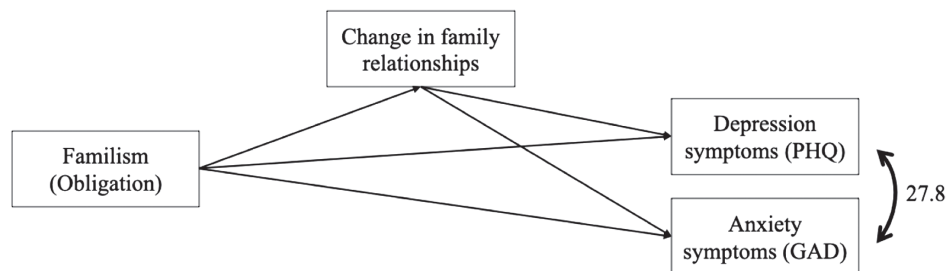
Note. GAD = generalized anxiety disorder; PHQ = patient health questionnaire.

through changes in family relationships. This indirect effect was not hypothesized, as there is little literature examining the specific effect of referent values on mental health. Zeiders et al. (2013) did report a protective effect of referent values on depression but did not measure anxiety. Thus, because of the novelty of these results, we urge readers to interpret with caution before these results can be replicated.

A major limitation of the present study is the cross-sectional and retrospective nature of the data. Since all measured variables were reported at the same time (after the onset of the pandemic had occurred), any causal theories about whether familism affected changes in family relationships due to the pandemic and consequently mental health cannot be disentangled from the possibility that mental health or family change affected reports of familism, or any other hypothesized causal direction. Longitudinal data that measured familism, family relationships, and mental health both before and after the onset of the pandemic would be necessary to make any causal or directional claims. Thus, these results should be interpreted with caution. There were additional methodological aspects that limit our conclusions. To measure changes in family relationships, we simply asked, "Has your relationship with your family changed since the beginning of the Covid pandemic?" and "If yes, have your relationships become better or worse?" Given the vagueness of the question and the many different forms change in family relationships can take, how participants interpreted the question and responded may vary substantially, limiting any

interpretation that can be made. Additionally, we asked about changes that coincided with the beginning of the pandemic and not if these changes were a direct result. Thus, family relationships could have been for reasons other than the pandemic, including other sources of stress, which were not measured. Given that stress has been shown to be an important factor in how familism is related to mental health (Corona, Campos, et al., 2017; Milan & Wortel, 2015), this should be investigated in future studies with a more specific measure of change in family relationships. Last, we used an undergraduate convenience sample, which was predominantly composed of women (75.6%). Past studies suggest the impact of familism on mental health may be different for men and women because of how gender is socialized in Mexican American culture (Cupito et al., 2015). Because of the gender imbalance in our sample, we were unable to examine gender effects. Thus, future research should examine how these processes may differ across gender.

Despite the limitations, this study provides preliminary evidence that the pandemic has had an effect on family relationships, at least for some individuals, and that positive and negative changes in family relationships were related to both familism values and mental health. However, different facets of familism had different direct and indirect effects on mental health, suggesting unique processes and mechanisms by which familism values affect both family relationship functioning and subsequent mental health. Given the disproportionate effect COVID-19 has had on the Hispanic community, including Mexican Americans, it is imperative to

Figure 3

Structural Equation Model Examining Direct and Indirect Effects of Familism Referent Values on Depression and Anxiety Symptoms (Model 3)
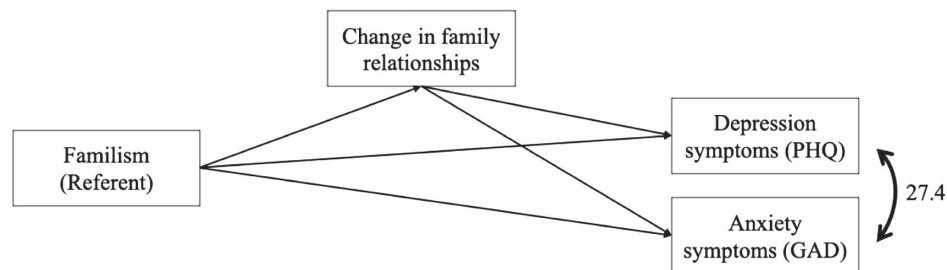
Note. GAD = generalized anxiety disorder; PHQ = patient health questionnaire.

Table 2

Direct and Indirect Effects of Each Facet of Familism on Depression and Anxiety From Three Separate Mediational Models

Direct/indirect effects	Model 1 (support)	Model 2 (obligation)	Model 3 (referent)
Depression			
Direct effect	−0.07 [−0.08, 0.03]	**−0.19 [−0.37, −0.09]**	**−0.24 [−0.40, −0.13]**
Indirect effect	**−0.03 [−.06, −.003]**	−0.04 [−.07, .01]	−0.02 [−.04, .00]
Anxiety			
Direct effect	−0.10 [−.20, .03]	**−0.21 [−.31, −.05]**	**−0.23 [−.35, −.04]**
Indirect effect	−0.01 [−.03, .03]	−0.01 [−.03, .01]	**−.004 [−.013, −.001]**

Note. Bias-corrected bootstrap 95% confidence intervals (CIs) are reported. Significant effects whose CIs do not cross zero are bolded.

understand the consequences for mental health among this vulnerable population and how cultural factors promote resilience. Familism may be particularly important in promoting resilience in the border region during stressful times such as the pandemic.

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