The Dynamics of Coping, Positive Emotions, and Well-Being: Evidence From Latin American Immigrant Farmworkers and College Students During a Time of Political Strife

Maria Monroy, Sydney B. Garcia, Rodolfo Mendoza-Denton, and Dacher Keltner
Department of Psychology, University of California, Berkeley

In the present article, we use daily diary methodology to investigate how coping influences well-being via the engagement of positive emotions in immigrant farmworkers and university students from diverse ethnic backgrounds. In Study 1, in a sample of Latinx immigrant farmworkers (N = 76), we found that the daily use of adaptive coping strategies predicted greater daily well-being, and that this relationship was accounted for by greater daily experiences of positive emotions. In Study 2, in a sample of college students from Latinx, Asian, and European American backgrounds (N = 336), we replicated the mediating effect of positive emotionality on the effect of adaptive coping on daily well-being and extended these findings to an examination of longitudinal well-being. This work provides evidence of one mechanism by which coping affects well-being and is one of the first studies of these dynamics in Latinx samples.

Keywords: coping, Latinx, positive emotions, well-being

Supplemental materials: https://doi.org/10.1037/emo0001009.supp

Coping With Stress and Well-Being

Coping is the cognitive and behavioral effort to manage the internal and external demands that are appraised as taxing or exceeding one’s resources (Folkman et al., 1986; Lazarus & Folkman, 1984). Coping has been conceptualized as serving various functions, including dealing with the problem causing distress (Folkman et al., 1986), regulating the emotional response to the problem (Folkman et al., 1986; Lazarus & Folkman, 1984), and finding meaning in the situation (Park, 2010; Park & Folkman, 1997). The end goal of coping is reducing the effects of stress and elevating well-being.

Empirical studies suggest that some coping strategies can be more adaptive than others. For example, meta-analytic reviews find that coping strategies such as planning, taking action, positive reframing, acceptance, religious coping, and seeking social support promote posttraumatic growth (Prati & Pietrantoni, 2009) as well as elevated well-being (Kato, 2015). Coping strategies such as avoidance/disengagement and denial, by contrast, lead to more psychological distress and worse well-being outcomes (Kato, 2015; Littleton et al., 2007). This suggests that some, but not all, coping strategies can promote psychological functioning.

Within the coping literature among Latinx people, there is analogous evidence in stress studies related to acculturation (Crockett et al., 2007), discrimination (Edwards & Romero, 2008; Villegas-Gold & Yoo, 2014), educational barriers (Gloria et al., 2005, 2009), and general stress (Vaughn & Roesch, 2003). For example, a study of Mexican American college students found that active coping strategies buffered the negative relationship between acculturative stress and psychological adjustment (i.e., depression and...
anxiety; Crockett et al., 2007). Similar effects were found in a studies of racial discrimination predicting self-esteem among Mexican American adolescents (Edwards & Romero, 2008) and subjective well-being among college students (Villegas-Gold & Yoo, 2014). These findings suggest that specific coping strategies, particularly those that orient people toward dealing with the stressor or emotional reactions, have adaptive effects on psychological health. However, the mechanism behind this relationship is not well understood.

Coping, Positive Emotions, and Well-Being

A central thesis to emerge in the study of coping is that adaptive coping strategies benefit individuals through shifts in positive emotion. Empirical studies support this claim (Folkman, 1997, 2008). For instance, a biweekly diary study of parents of children with autism found that coping strategies such as seeking social support, taking action, and positive reframing were associated with elevations in positive mood (Pottie & Ingram, 2008). Converging results were found in an investigation of caregiving and bereavement of partners with AIDS (with the exception of seeking social support; Teddie Moskowitz et al., 1996). These studies suggest that when people engage in coping strategies like planning, taking action, positive reframing, acceptance, and seeking social support, they experience positive emotions of different kinds (e.g., amusement, awe, contentment, joy, gratitude, love, pride; Shiota et al., 2017).

Positive emotions are known to be a reliable determinant of elevated well-being (Fredrickson, 2001; Lyubomirsky et al., 2005). Notably, studies show that positive emotions counteract the physiological effects of stressful experiences (Fredrickson & Levenson, 1998), improve psychological functioning in experiences of bereavement (Bonanno & Keltner, 1997; Keltner & Bonanno, 1997), and improve well-being outcomes in quotidian and stressful contexts (Anderson et al., 2018; Fredrickson et al., 2003). Positive emotions enhance well-being through several processes, including shifts in autonomic nervous system response (see Kreibig, 2010), in patterns of thought (Fredrickson, 2001), and in the social cues these states signal to others, which encourage greater social engagement (Keltner & Kring, 1998; Van Klee, 2009; Keltner & Shiota, 2021).

Taken together, the coping and emotion literatures find that adaptive coping strategies are associated with positive emotions and that positive emotions elevate well-being. These literatures suggest that positive emotions will mediate influences of coping strategies upon well-being, but this possibility is poorly understood. A central focus of this investigation is to examine this proposed mediational relationship.

Our second focus is to extend the hypotheses of coping, positive emotion, and well-being to Latinx samples. Latinx people in the United States experience additional sources of stress owing to acculturation (most prevalent in first generation immigrants; Mena et al., 1987), discrimination, and exclusion in terms of anti-immigration rhetoric and policies, which have negative consequences on psychological health (Arbona & Jimenez, 2014; Chavez et al., 2019; Crockett et al., 2007; Edwards & Romero, 2008; Finch & Vega, 2003; Gloria et al., 2005, 2009; Hovey, 2000; Potochnick & Perreira, 2010; Romero & Roberts, 2003; Villegas-Gold & Yoo, 2014). Latinx people, more generally, are less studied in psychological science. The present focus on this cultural group is relevant given the likely stresses they face.

The Current Research

The present work examines the effect of adaptive coping on well-being and the mediating role of positive emotions among Latinx farmworkers and university students from diverse ethnic backgrounds during a time of political strife. Data collection took place between 2017 and 2019, a time in which people of Latinx backgrounds in the US, in particular Mexicans, were political targets of the U.S. administration. This was evident from the anti-immigrant rhetoric and policies targeted toward people of Latinx backgrounds. It was clearly a time of stress for Latin Americans in the United States. In Study 1, we examine how the adaptive coping of Latinx immigrant farmworkers predicted positive emotions and elevated well-being. In Study 2, to complement Study 1 and show generalizability evidence, we examine the relationship between adaptive coping, positive emotions, and well-being in an ethnically diverse sample of college students—from Latinx, Asian, and European American backgrounds. Across these two studies, using daily-diary methodology, we tested four hypotheses. First, we hypothesized that daily adaptive coping strategies would predict greater daily well-being in the lives of farmworkers (Study 1) and university students (Study 2), and long-term well-being (Study 2). Second, in keeping with the coping literature, we predicted that daily adaptive coping would be associated with daily positive emotionality (Studies 1 and 2). Third, in keeping with studies of the effects of positive emotions (Anderson et al., 2018; Fredrickson, 2001; Fredrickson et al., 2003; Lyubomirsky et al., 2005), we predicted that daily positive emotionality would be associated with better daily well-being (Studies 1 and 2) and long-term well-being (Study 2). Fourth, we hypothesized that positive emotions would mediate the effect of adaptive coping on daily well-being (Studies 1 and 2), and long-term well-being (Study 2).

Study 1: Coping Among Latinx Immigrant Farmworkers

Study 1 examines daily coping with stress, positive emotions, and well-being across 7 days in a community sample of immigrant Latinx farmworkers from the Central Valley, California. A typical day of an immigrant farmworker may consist of getting up at early hours in the morning to avoid the 100-degree sun and working in

2 In the past 5 years and during the Trump administration in general, anti-immigration rhetoric has taken the front pages of daily newspapers and overall public consciousness. Including derogatory statements made toward Latinx immigrants by the then presidential candidate Donald Trump: “When Mexico sends its people, they’re not sending their best... They’re bringing drugs. They’re bringing crime. They’re rapists... It’s coming from all over South and Latin America” (June 16, 2015). The continual focus of building a wall and closing the Mexico–U.S. border (Shear & Davis, 2019), and policy changes such as the rescission of the Deferred Action for Childhood Arrivals (DACA; Homeland Security, 2017). In addition, the “zero tolerance” policy toward immigration (predominantly enforced in 2018), in which prosecutors filed criminal charges to those that crossed the border without authorization, including parents who were then separated from their children and deported. Reports and images of these children in cage like detention centers were highly publicized in the national media (up until today; Long, 2021; Shear, 2021).
the fields across the United States, working long hours, and then going home to eat and rest while writing or calling family thousands of miles away. In addition to harsh working conditions and being separated from family for long periods of time (Hiott et al., 2008), the stress of acculturation (Alderete et al., 1999; Hovey & Magaña, 2002a, 2002b) and discrimination (Areguin et al., 2020), immigrant farmworkers face other added stressors that have negative consequences on psychological health. For example, studies find that immigrant farmworkers experience stressors that result in increased anxiety and depression (Areguin et al., 2020; Hiott et al., 2008; Magaña & Hovey, 2003; Pulgar et al., 2016), including economic hardships such as food insecurity, low paid and uncertain work, exposure to pesticides, poor housing conditions, and documentation status or what many view as political persecution. This provides a unique context to investigate how people cope with stress in a sample that’s largely understudied and are beyond WEIRD (Western, Educated, Industrialized, Rich, and Democratic; Henrich et al., 2010).

Method

Participants

The sample consisted of 110 community adults (M_age = 43.25, SD = 16.15, range 18–79; 62% female) from Tulare County in the Central Valley of California. This sample size is comparable with that of previous studies examining coping among Latinx people beyond university samples (e.g., Edwards & Romero, 2008; Magaña & Hovey, 2003), and the repeated measures design of our study provides greater statistical power. Based on the average effect size of .26 found in recent metanalyses (Kato, 2015; Prati & Pietrantoni, 2009), our study is well powered to be able to detect such effect (see online supplemental materials). Eligibility to participate in the study consisted of identifying as Latinx, being or having been a farmworker, and being able to read in Spanish or English. All participants identified as Mexican or Mexican American. Most participants were born outside of the United States (73%), and all had at least one parent born outside of the United States. Eighty percent reported Spanish as their primary language. Forty-two percent of the sample were born outside of the United States (73%), and all had at least one parent of another country of origin outside of the United States. Thirty-two percent of the sample reported their annual income as less than $15,000, and 38% less than $39,000. Most participants completed their high school education or less (52% completed and 35% did not complete high school).

Procedure

Participants were recruited through community programs, churches, door-to-door canvassing, and word of mouth. All recruitment and administration of surveys was conducted by two Latina researchers bilingual in Spanish and English. All survey questionnaires were translated to Spanish by research personnel, reviewed by a native Spanish speaker for accuracy, and administered in paper and pen format. Participants completed the surveys in their language of preference (English or Spanish).

First, participants provided verbal consent and completed the initial questionnaire with at least one researcher present to answer any questions, after which they were compensated with $5. Then they were instructed on the diary protocol, which began a day later, and received a manila envelope with seven daily diaries. Every day throughout the week, participants received a text message between 6:30 p.m. and 7:30 p.m. reminding them to complete their daily diary. Each diary began with Likert-type questions that prompted participants to report on their emotions, thoughts, and experiences that day. At the end of the diary participants were asked to write a short narrative about their most stressful event they experienced that day, then asked to report how stressful was that experience and how they coped with it. On day 7, after texting the reminder to complete their final diary, researchers confirmed the location and time to pick up the diary-envelope. The next day, a researcher met with the participants, retrieved the folder, and paid them (compensation was dependent on how many diaries the participant completed). Participants received up to $30 for completing the daily diaries. This procedure was approved by the authors’ institutional review board.

Measures

Initial Measures. In the initial questionnaire participants provided demographic information.

Daily Diary Measures. In each diary entry, participants were asked about their thoughts, feelings, and behaviors during the day. To assess daily adaptive coping,3 these six items were aggregated into a composite (α = .84; M_across_diary = 3.43, SD = 1.29).

Positive Emotionalality. Guided by previous daily diary approaches (Anderson et al., 2018; Impett et al., 2012; Srivastava et al., 2009) and recent studies of positive emotion (Cowen & Keltner, 2017; Shiota et al., 2017), positive emotions were assessed with single items composed of synonym clusters, in which participants rated how much of each of eight positive emotions they experienced each day on scale from 0 (not at all) to 10 (completely): Amusement (amused/having fun/laughing; M_across_diary = 6.35, SD = 2.38), Awe (awe/amazed/wonder; M_across_diary = 4.78, SD = 2.50), Compassion (compassionate/sympathetic/concern for others; M_across_diary = 5.87, SD = 2.56), Contentment (content/relaxed/peaceful; M_across_diary = 6.63, SD = 2.07), Gratitude (grateful/appreciative/thankful; M_across_diary = 7.14, SD = 2.15), Joy (joyful/energetic/enthusiastic; M_across_diary = 6.89, SD = 1.90), Love (love/affection/warmth; M_across_diary = 7.12, SD = 2.51), and Pride (proud/sense of accomplishment/successful; M_across_diary = 6.15, SD = 2.33). These eight positive items were combined into a 

3 We use adaptive coping in this article to denote strategies that show beneficial effects on psychological health (as suggested by Kato, 2013; Prati & Pietrantoni, 2009). We do not claim that the coping strategies we assessed are the only adaptive strategies; rather, those are some of the adaptive strategies. Given that the coping literature does not have a unifying coping nomenclature (Folkman & Moskowitz, 2004), we used theoretical and empirical evidence to provide support for the use of adaptive coping.
composite of daily positive emotionality ($\alpha = .89; M_{\text{diary}} = 6.39, SD = 1.71$).

**Negative Emotionality.** Guided by previous daily diary approaches (Anderson et al., 2017; Impett et al., 2012; Srivastava et al., 2009), negative emotions were assessed with single items composed of synonym clusters, in which participants rated how much of each of five negative emotions they experienced each day on scale from 0 (not at all) to 10 (completely): Anger (angry/irritable/mad; $M_{\text{diary}} = 2.46, SD = 2.44$), Anxiety (anxious/nervous/worried; $M_{\text{diary}} = 2.91, SD = 2.33$), Disgust (disgust/repulsion/repugnance; $M_{\text{diary}} = 1.21, SD = 2.00$), Fear (fearful/afraid/scared; $M_{\text{diary}} = 1.89, SD = 2.53$), and Sadness (sad/depressed/down; $M_{\text{diary}} = 2.69, SD = 2.39$). To assess daily negative emotionality, the five negative items were combined into a composite ($\alpha = .94; M_{\text{diary}} = 2.25, SD = 2.09$).

**Stress Reactivity.** Daily stress reactivity to the stressful event was assessed with a face-valid item on a scale from 1 (not at all) to 10 (completely): “How stressful was this event for you?” ($M_{\text{diary}} = 5.25, SD = 2.57$).

**Well-Being.** Daily well-being was measured with a single item of life satisfaction, a cognitive component of subjective well-being (Diener et al., 1985); on a scale from 0 (not at all) to 10 (completely); “How satisfied were you with your life today?” ($M_{\text{diary}} = 7.70, SD = 1.99$).

These measures have been previously used with Latinx samples in the United States (e.g., Villegas-Gold & Yoo, 2014; Vaughn & Roesch, 2003) and validated in international samples (including Mexico; Kuppens et al., 2008).

**Data Analytic Plan**

All statistical analyses were performed using RStudio (R Core Team, 2018) in the R programming environment. Our preliminary analyses included examination of missing data and data exclusion based on a specified criteria to assess descriptive statistics across all variables. See Table S1 in the online supplemental materials for descriptive statistics and zero-order correlations.

For our primary analyses, with daily-level variables, we used hierarchical linear modeling (HLM). The repeated measures design resulted in a two-level hierarchical structure with daily variables nested in participants, and we included random intercepts and random slopes for participants. We fitted our models using the lme4 and lmerTest packages (versions 1.1–19 and 3.0–1); the degrees of freedom and p values were calculated using the Satterthwaite’s method (Bates et al., 2015), which yields df that are somewhere between the number of total observations, the individuals, and days depending on the relative variance explained by each factor. This explains why the degrees of freedom will vary from model to model.

One strength of a multilevel-modeling approach is that it allows the examination of day-level effects. Day-level effects are within-person effects, where we can test whether daily changes in one variable affect daily changes in another variable (e.g., On days in which people report using more adaptive coping strategies, do they also report experiencing more positive emotions?). To examine day-to-day effects, we person-centered daily variables, where outcomes represent changes in a variable from that person’s own average.

**Results**

**Preliminary Analyses**

Of the total sample of 110, participants who completed fewer than two diary entries were excluded from the final sample. The remaining 76 (69%) submitted a total of 523 diary entries of the possible 770 (68%) during the diary period.

**Daily Level Analyses**

To test our four hypotheses, we used two-level HLMs. First, to test Hypothesis 1 (H1), and validate our assumption of adaptive coping, we examined the effect of daily coping on daily well-being. Consistent with our prediction, across the seven daily-diaries, daily coping predicted better well-being ($\beta = .10, b = .22, SE = .10, p = .034$). This shows that on days when farmworkers reported using more coping strategies than typical, they reported higher well-being. In other words, averaged coping strategies—Acceptance, Active Coping, Emotional Support, Humor, Positive Re reframing, and Planning—had an adaptive effect on well-being. See Table 1 model H1 for results.

For Hypothesis 2 (H2), we examined the relationship between daily adaptive coping and daily positive emotionality. As expected, and consistent with past studies, across the seven daily-diaries, daily adaptive coping predicted more daily positive emotionality ($\beta = .13, b = .23, SE = .05, t(388) = 4.38, 95% CI [.13, .34], p < .001$).

To test Hypothesis 3 (H3), we examined the effect of daily positive emotionality on daily well-being. As expected, and in keeping with past studies, across the seven daily-diaries, daily positive emotionality predicted greater daily well-being ($\beta = .30, b = .61, SE = .08, t(58) = 7.36, 95% CI [.45, .77], p < .001$).

Having established that daily adaptive coping predicts well-being and positive emotionality and that positive emotionality predicts daily well-being, we tested our mediation model for Hypothesis 4 (H4). For this final step, we tested our daily mediation model by adding positive emotionality to our first model. As predicted, we found that after adding positive emotionality into the model, the effect of daily adaptive coping on well-being was no longer significant ($p = .61$; see Table 1, model H4); daily positive emotionality accounted for the effect of daily adaptive coping on well-being. Overall, these findings suggest that as immigrant farmworkers deal with the stresses of being in a foreign land, away from family, and in harsh working conditions, the more adaptive coping strategies they use increase their experiences of positive emotions and improve their daily well-being.

Lastly, we examined whether our models would hold when accounting for potentially explanatory factors such as the intensity of the stressful situation, which may influence coping (Carver & Connor-Smith, 2010; Lazarus & Folkman, 1984), and for the co-occurrence of negative emotions (Folkman, 1997, 2008; Ong et al., 2006). To do so, we added stress reactivity as a covariate in our first model (H1) and second model (H2). As expected, the effects still held when controlling for the intensity of the stressor for Hypothesis 1 ($\beta = .10, b = .21, SE = .08, t(137) = 2.56, 95% CI [.05, .38]; p = .012$), and Hypothesis 2, ($\beta = .17, b = .31, SE = .08, t(41) = 4.12, 95% CI [.16, .46], p < .001$). To control for the co-occurrence of negative emotions in our positive emotion models (H3 & H4), we added negative emotionality as a covariate to our
third and fourth models. As expected, our third Hypothesis held when controlling for negative emotionality ($\beta = .26, b = .53, SE = .07, z(41) = 7.82, 95\% CI [.40, .66], p < .001$). For Hypothesis 4, we examined whether our model would hold when controlling for both the intensity of the stressor and negative emotions. Once again, as expected, positive emotionality still accounted for the effect of adaptive coping on well-being when controlling for stress reactivity and negative emotionality ($p = .67$; see the online supplemental materials). Our main model (H4) also held when controlling for gender (see the online supplemental materials).

### Method

#### Participants

Participants were 374 undergraduate students ($M_{age} = 20.56, SD = 2.93$; 76\% female) from the University of California, Berkeley who participated in exchange for credit in a psychology course. This sample size is comparable to that of previous studies examining coping, emotions, and well-being in daily life (Anderson et al., 2018; Pottie & Ingram, 2008). See the online supplemental materials for power analysis. The sample demographics were 58 (16\%) Latinx American, 94 (25\%) European American, 170 (45\%) Asian American, 15 (4\%) Middle Eastern American, four (1\%) African American, and 27 (9\%) mixed ethnicities.

#### Procedure

Participants first completed an initial online survey in which they provided informed consent, completed demographic questions, and were instructed on the diary protocol, which began a day later. During the daily diary period, participants were sent a link to the diary survey via the Qualtrics online platform every night at 7 p.m. for 14 consecutive days. Each diary began with follow-up longitudinal well-being measures, at day 30. This procedure was approved by the authors’ institutional review board at the University of California, Berkeley.

### Measures

 Measures in Study 2 were identical as those in Study 1 with the exception of longitudinal well-being.
Initial Measures. In the initial online survey participants completed a questionnaire with basic demographics information.

Daily Diary Measures. In each diary entry, participants responded to the following items, as they pertained to their experiences that day.

Coping. Participants rated how they coped with a stressful experience that they had that day on six items on scale from 0 (not at all) to 7 (definitely): Acceptance (M across diary = 4.33, SD = 1.51); Active Coping (M across diary = 4.20, SD = 1.28); Emotional Support (M across diary = 2.99, SD = 1.30); Humor (M across diary = 2.21, SD = 1.19); Positive Reframing (M across diary = 3.11, SD = 1.33); Planning (M across diary = 4.41, SD = 1.32). To assess daily adaptive coping, these six items were aggregated into a composite (α = .88; M across diary = 3.54, SD = 1.04).

Positive Emotionality. With single items composed of synonym clusters, participants rated how much of each of eight positive emotions they experienced each day on scale from 0 (not at all) to 10 (completely): Amusement (amused/having fun/laughing; M across diary = 5.26, SD = 1.89); Awe (awe/amazed/wonder; M across diary = 3.66, SD = 2.13); Compassion (compassionate/sympathetic/concern for others; M across diary = 5.04, SD = 2.03); Contentment (content/relaxed/peaceful; M across diary = 4.75, SD = 1.75); Gratitude (grateful/appreciative/thankful; M across diary = 5.28, SD = 1.97); Joy (joyful/energetic/enthusiastic; M across diary = 5.53, SD = 1.75); Love (lovel/affection/warmth; M across diary = 5.53, SD = 2.03); and Pride (proud/sense of accomplishment/successful; M across diary = 4.53, SD = 1.95). To assess daily positive emotionality, the eight positive items were combined into a composite (α = .95; M across diary = 4.95, SD = 1.67).

Negative Emotionality. With single items composed of synonym clusters, participants rated how much of each of five negative emotions they experienced each day on scale from 0 (not at all) to 10 (completely): Anger (angry/irritable/mad; M across diary = 2.39, SD = 1.68); Anxiety (anxious/nervous/worried; M across diary = 4.49, SD = 1.79); Disgust (disgust/repulsion/repugnance; M across diary = 1.63, SD = 1.64); Fear (fearful/afraid/scared; M across diary = 2.51, SD = 1.90); and Sadness (sad/depressed/down; M across diary = 3.10, SD = 1.77). To assess daily negative emotionality, the five negative items were combined into a composite (α = .90; M across diary = 2.83, SD = 1.49).

Stress Reactivity. Daily stress reactivity to the stressful event was assessed with a face-valid item on a scale from 0 (not at all stressful) to 10 (extremely stressful): “How stressful was this event for you?” (M across diary = 5.56, SD = 1.58).

Well-Being. On a scale from 0 (not at all) to 10 (completely) participants rated: “How satisfied were you with your life today?” (M across diary = 5.77, SD = 1.68).

Longitudinal Well-Being. Longitudinal well-being was assessed using the Mental Health Checklist (MHC-SF; Keyes, 2002, 2009). The MHC-SF is a more well-rounded measure of well-being, including emotional, psychological, and social well-being (Keyes, 2002, 2009). Participants responded to fourteen items indicating the frequency of how they felt during the past month (e.g., satisfied with life, that [they] had something important to contribute to society, that [they] had experiences that challenged [them] to grow and become a better person), on a scale ranging from 0 (never) to 5 (every day; α = .94; M = 2.90, SD = 1.03).

Data Analytic Plan

For Study 2, we used a parallel analytic plan as in study 1, with the exception of the following. For the main mediation model, for longitudinal well-being, we used mean aggregates and fitted the model using the mediate function within the psych package (Version 1.8.12). To test a mediation with temporal sequence, we examined days 1–7 for the predictor (coping), days 8–14 for the mediator (positive emotionality), and the outcome (longitudinal Well-being) was assessed at day 30. See Table S1 in the online supplemental materials for descriptive statistics, along with zero-order correlations.

Results

Preliminary Analyses

Of the total sample of 374, participants who completed fewer than two diary entries were excluded from the final sample. Diary entries submitted more than a day later were excluded from the analyses. The remaining 336 (90%) submitted a total of 3,855 diary entries of the possible 4,704 (82%) during the diary period. Eighty-five percent of participants completed the follow-up longitudinal well-being measures (n = 285).

Daily Level Analyses

We tested our four hypotheses using two-level HLMs. To test our first hypothesis, we examined the effects of daily coping on daily well-being. Consistent with our prediction, across the 14 daily-diaries, on days when participants reported using more coping strategies than usual, they reported greater well-being (β = .09 b = .26, SE = .04, p < .001). That is, the use of coping strategies—Acceptance, Active Coping, Emotional Support, Humor, Positive Reframing, and Planning—had on adaptive effect on college student’s daily well-being. See Table 2, model H1, for results.

For our second hypothesis, we similarly examined the effect of daily coping on daily positive emotionality. As expected, across the 14 daily-diaries, daily adaptive coping predicted more daily positive emotionality (β = .11, b = .26, SE = .03, t(295) = 7.74, 95% CI [.19, .32], p < .001).

To test our third hypothesis, we tested the effect of positive emotionality on well-being. As expected, across the 14 daily-diaries, on days that participants reported experiencing positive emotionality they also reported higher levels of well-being (β = .51, b = .91, SE = .02, t(259) = 42.96, 95% CI [.86, .95], p < .001).

Next, to test our fourth hypothesis, we expanded our first model and added positive emotionality as a covariate in a model with daily adaptive coping predicting daily well-being. We found that when accounting for daily positive emotionality, the effect of daily adaptive coping on well-being was no longer significant (p = .71; see Table 2, model H4). This suggests that adaptive coping strategies benefit well-being via the enhancement of positive emotions.

We next examined whether our models in would hold when accounting for the intensity of the stressor and daily negative emotional experiences. To examine this, we added stress reactivity as a covariate to model 1 and 2 (H1 and H2). As expected, our results held for Hypothesis 1 (β = .14, b = .37, SE = .03, t(2100) = 11.46,
95% CI [.31, .44], p < .001), and Hypothesis 2 (β = .14, b = .34, SE = .03, τ(288) = 10.87, 95% CI [.28, .40], p < .001). Then, we tested whether models 3 and 4 (H3 and H4) would hold when controlling for negative emotionality. As expected, when adding negative emotionality as a covariate to our model for Hypothesis 3, the significant results still held (β = .47, b = .83, SE = .02, τ(252) = 39.96, 95% CI [.79, .87], p < .001). For our last daily model (H4), when controlling for both stress reactivity and negative emotionality, positive emotionality still partially accounted for the effect of adaptive coping on well-being (p = .004; see the online supplemental materials). Our results for Hypothesis 4 also held when taking into account gender and ethnicity (see the online supplemental materials for model statistics and reliability of measures per ethnic group).

**Longitudinal Well-Being Mediation Analysis**

To examine a true test of mediation with temporal sequence, we built a model with Coping (X) on week one (α = .85; M = 3.60, SD = 1.04), Positive Emotionality (M) on week 2 (α = .95; M = 4.74, SD = 1.87), and Longitudinal well-being (Y) on week 4 (day 30). We tested this mediation using a bootstrapping procedure of 5,000 resamples with replacement. We found that consistent with Hypothesis 3, the use of adaptive coping strategies during the first week predicted longitudinal well-being at day 30 (β = .36, SE = .05, τ(334) = 6.99, p < .001); as expected in Hypothesis 2, adaptive coping predicted more positive emotionality (β = .54, SE = .05, τ(334) = 11.59, p < .001); consistent with Hypothesis 3, positive emotions reported during week 2 predicted better well-being at week 4 (β = .61, SE = .05, τ(333) = 11.94, p < .001); and lastly, as predicted in Hypothesis 4, positive emotionality mediated the effect of adaptive coping on long-term well-being (indirect effect; β = .32, SD = .04, 95% CI [.25, .41], p < .001; see Figure 1).

Lastly, we examined whether our mediation model would hold when controlling for the intensity of the stressor and daily negative emotions. To test this, we added stress reactivity from week 1 (M = 5.71, SD = 1.63), and negative emotionality from week 2 (α = .89; M = 2.61, SD = 1.62) to the mediation model. We used a similar approach as before, using a bootstrapping procedure of 5,000 resamples with replacement. We found that positive emotionality mediated the effect of adaptive coping on long-term well-being when controlling the intensity of the stressor and negative emotions (identical indirect effect as our previous model; β = .32, SD = .04, 95% CI [.25, .41], p < .001). In addition, the mediation held when accounting for gender and ethnic differences (see the online supplemental materials).

The results of Study 2 replicate those of Study 1 and suggest that, as students navigate the demands of a stressful academic and political environment, using adaptive coping strategies promotes positive emotions and improves long-term well-being.

**General Discussion**

Empirical studies provide ample evidence for the effects of coping on well-being (for review see Kato, 2015; Prati & Pietrantoni, 2009). Little is known, however, about the mechanism behind this relationship, and whether these processes hold within Latinx samples. Guided by the coping and positive emotion literatures (Folkman, 2008; Folkman & Moskowitz, 2000a, 2000b; Fredrickson, 2001; Lyubomirsky et al., 2005), in the present studies we document how adaptive coping strategies promote experiences of positive emotions that elevate well-being.

In Study 1, we examined the daily lives of Mexican and Mexican American farmworkers in a seven-day diary study. We focused on this group in particular because Mexicans in the United States, and Latinx people in general, experience added stress due to immigration politics that were amplified at the time
of data collection, acculturation (Crockett et al., 2007; Hovey, 2000; Mena et al., 1987); and discrimination (Edwards & Romero, 2008; Villegas-Gold & Yoo, 2014). We found that in the day-to-day lives of Mexican and Mexican American farmworkers, the more adaptive coping strategies they used, the greater well-being they reported (H1) and more positive emotions they experienced (H2). The more daily positive emotions they experienced, the better well-being they reported (H3). Lastly, we found that the effect of daily adaptive coping on well-being was accounted by experiences of daily positive emotions (H4a). Importantly, the results held when controlling for the intensity of the stressor, negative emotions, and gender differences. In Study 2, we replicated the findings of Study 1 in an ethnically diverse sample of undergraduate students dealing with academic and sociopolitical stress in a 30-day diary study. We extended these findings by running a true test of mediation with temporal sequence, and found that adaptive coping predicted better longitudinal well-being, and that the relationship was mediated by experiences of positive emotions (H4b). Both daily and longitudinal mediation held when controlling for the intensity of the stressor and negative emotionality. We also did not find differences by ethnicity or gender in the mediation models. Overall, we show converging effects across gender, ethnicity, and critically across two samples different in terms environmental factors—farmworkers working on the fields and students at a public university. These findings suggest that using adaptive coping strategies that increase experiences of positive emotions are beneficial for well-being regardless of gender or group membership.

This research builds on past work on the beneficial effects of adaptive coping strategies—Acceptance, Active Coping, Emotional Support, Humor, Positive Reframing, and Planning (for review see Kato, 2015; Prati & Pietrantoni, 2009)—and highlights the critical role of positive emotions when coping with stressful experiences. Our findings are in agreement with past work showing that adaptive coping strategies are associated with positive emotions (Folkman, 1997, 2008; Pottie & Ingram, 2008; Tedlie Moskowitz et al., 1996) and improved well-being outcomes (Kato, 2015; Prati & Pietrantoni, 2009). In addition, we provide further evidence supporting past work on the beneficial effects of positive emotions on well-being (Anderson et al., 2018; Fredrickson, 2001; Fredrickson et al., 2003; Lyubomirsky et al., 2005). Lastly, although past theoretical and empirical work suggest that coping strategies that promote experiences of positive emotions are adaptive for psychological health (Bonanno & Keltner, 1997; Folkman, 2008; Folkman & Moskowitz, 2000a, 2000b; Keltner & Bonanno, 1997; Tugade, 2012); to our knowledge, no empirical study has examined this mediational relationship. The present studies provide new evidence on the mediating role of positive emotions in the coping well-being relationship. Our findings may be one of the longest studies of these processes. This work also builds upon the emerging literature on how Mexican Americans, and Latin Americans in general, cope with the unique stresses they face in the U.S. culture (Crockett et al., 2007; Edwards & Romero, 2008; Gloria et al., 2005, 2009; Vaughn & Roesch, 2003; Villegas-Gold & Yoo, 2014).

Several limitations of this investigation warrant discussion. Although the present investigation shows the beneficial effects of experiencing positive emotions—that positive emotions account for the variance in the relationship between adaptive coping and well-being—it is important to bear in mind that the findings were of longitudinal nature and not experimental, limiting our ability to infer causality. This also does not allow us to control for context of the situation. As studies suggest that the context of the situation

![Figure 1](image-url)

**Mediation Model for Study 2**

**Note.** The relationship between daily adaptive coping and longitudinal well-being was mediated by daily positive emotionality. The indirect effect and its confidence intervals were calculated using a bootstrapping procedure of 5000 resamples with replacement (β = .32, 95% CI [.25, .41]). All estimates are standardized. "*** p < .001."
can influence how people cope (for review see Carver & Connor-Smith, 2010). For instance, when facing uncontrollable stressors such as exposure to violence, typically adaptive strategies such as active coping (Güdiño et al., 2018) and typically maladaptive strategies such as denial (Epstein-Ngo et al., 2013) can result in contradicting effects, with the former decreasing and latter increasing psychological health. Given this work, future well-powered experimental studies can control for the context of the stressor. Additionally, our sample sizes are relatively small, in particular for Study 1. Future experimental, well-powered studies can better answer these and other questions.

Conclusion

The study of coping is critical, particularly during the current times where climate crisis, the health pandemic, and political turmoil are at the forefront of our consciousness. In the current study, we illuminated the beneficial effects of daily positive emotions in the face of stressful experiences for Latinx farmworkers and undergraduate students from diverse, and often underresourced, backgrounds. These findings suggest that increasing daily positive emotions might be a key component of adaptive coping strategies.

References


Received October 20, 2020
Revision received May 14, 2021
Accepted May 24, 2021