

**Early Effects of the COVID-19 Pandemic on Relationship Satisfaction and Attributions**

Manuscript published in *Psychological Science*

November 5, 2020

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**Acknowledgements:**

The author thanks Justin Lavner for helpful comments while preparing this manuscript.

**Author Contributions:**

H. C. Williamson is the sole author of this article and is responsible for its content.

**Funding:**

Funding for this study was provided by the Russell Sage Foundation (1904-14297), the College of Natural Sciences at The University of Texas at Austin, and grant P2CHD042849 Population Research Center, awarded to the Population Research Center at The University of Texas at Austin by the Eunice Kennedy Shriver National Institute of Child Health and Human Development. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

### **Abstract**

How has the COVID-19 pandemic affected intimate relationships? Existing literature is mixed on the effect of major external stressors on couple relationships, and little is known about the early experience of crises. The current study uses 654 individuals involved in a relationship who provided data immediately before the onset of the pandemic (Dec, 2019) and twice during the early stages of the pandemic (March & April, 2020). Results indicate that relationship satisfaction and causal attributions did not change over time, but responsibility attributions decreased on average. Changes in relationship outcomes were not moderated by demographic characteristics or negative repercussions of the pandemic. There were small moderation effects of relationship coping and conflict during the pandemic, such that couples with more positive functioning increased in satisfaction and decreased in maladaptive attributions and couples with lower functioning decreased in satisfaction and increased in maladaptive attributions.

**Keywords:** coronavirus pandemic, couples, COVID-19, interpersonal relationships, relationship quality

### **Statement of Relevance**

The COVID-19 pandemic has called upon couples to spend extended amounts of time together and rely primarily on each other for support during a major stressor that has upended nearly every aspect of daily life. In this study, individuals involved in a relationship were assessed before the start of the pandemic and again two times during the early stages of the pandemic to determine how their relationship changed. Overall, the results of this large, national study indicate that on average people did not change in how satisfied they were with their relationship, but did become more forgiving and less blaming of their partner's negative behaviors by attributing them less to their partner's internal characteristics. These results were true irrespective of multiple characteristics, including demographics of the partners, pre-existing characteristics of the relationship, and negative experiences resulting from the pandemic, but did vary based on couple functioning during the pandemic.

### **Early Effects of the COVID-19 Pandemic on Relationship Satisfaction and Attributions**

Major external stressors such as natural disasters or pandemics require individuals to immediately mobilize a response and tax the community-wide social support resources that individuals typically turn to in times of stress. Accordingly, individuals rely heavily on those closest to them for support in navigating these crises (e.g., Bonanno et al., 2010). However, reliance on intimate partners has been further heightened during the coronavirus (COVID-19) pandemic. Individuals across the world were isolated at home with their families for weeks, with adults working from home or laid off, children out of school, and physical contact with people outside of one's household discouraged or banned, raising questions about the impact of the pandemic on intimate relationships.

The existing literature on the effect of major external stressors on couple relationships has relied on couples recruited and studied after experiencing a crisis, and has come to contradictory conclusions about whether the effects are positive or negative (e.g., Fredman et al., 2010; Harville et al., 2011; Lowe et al., 2012; Whisman, 2014). Though limited in their ability to examine *changes* in relationship outcomes, these studies suggest that crises may have variable, rather than uniform, effects on relationships. Specifically, outcomes may differ based on three key dimensions: demographic characteristics of the partners and relationships such as their socioeconomic status or the length of the relationship; negative repercussions experienced during the stressor such as financial strain or disruption of daily life; and relationship processes during the stressor such as relationship conflict or positive coping.

Proper testing of the effects of a crisis on couples requires multiple waves of data on relationship functioning collected shortly before and shortly after the onset of the stressor (Bonanno et al., 2010). The current study aims to fill this critical gap by examining changes in couple relationships in the U.S. from several months before the COVID-19 pandemic to its initial

stages. The degree to which relationship satisfaction and attributions changed on average over this period, as well as the extent to which the rate of change is moderated by demographic characteristics, experiences during the pandemic, and relationship processes are tested.

## **Method**

### **Participants and Procedure**

Participants were recruited at Time 1 (T1) using the online research platform Prolific ([www.prolific.co](http://www.prolific.co)) on December 7-9, 2019. All registered participants on Prolific who met the eligibility criteria (currently in a relationship, engaged, or married, residing in the United States, and age 18 or over) were invited to take part in the study, with the sample size set at 1,200 based on availability of funding. A quota was placed that required 50% of participants to have a household income of \$50,000 or less to ensure representation of a broad range of socioeconomic status. Participants took 15 minutes on average to complete the survey, and were paid \$2.50. The study was approved by the University of Texas at Austin IRB.

All T1 participants were invited via a message to their Prolific account to participate in an unplanned follow-up that ran from March 26-28, 2020 (T2). Of the 1,200 participants at T1, 825 participated at T2 (71%). Of these, 796 could be linked with their T1 data; the others could not be linked due to incomplete or incorrect ID numbers provided by participants at either time point. Of the 796 participants with data at both time points, 14 participants indicated in response to a screening question that they were no longer in the same relationship (5 were with a new partner and 9 were single). This left a sample of  $N = 782$  at T2, who were invited one month later to participate in T3, which occurred on April 26-29, 2020. Of the 782 eligible participants, 664 participated at T3, for a response rate of 85%. Of the 664, 10 participants indicated in response to a screening question that they were no longer in the same relationship (2 were with a new partner

and 8 were single), leaving a final analytic sample of  $n = 654$ . Both follow-ups took 10 minutes on average to complete, and participants were paid \$2.00

To contextualize the extent of the pandemic during data collection, the first case of COVID-19 in the U.S. was reported on Jan 22, 2020 (Harcourt et al., 2020), and at the time of T2 data collection the United States had the largest number of reported cases of COVID-19 in the world (81,321; McNeil, 2020). At the time of T3 data collection, the number of COVID-19 cases in the U.S. had risen to over 1 million, and COVID-19 deaths in the U.S. had surpassed the death toll of the Vietnam War (58,365; Welna, 2020). At T2 and T3 schools across the country had closed and all states had issued orders limiting gatherings of individuals (*Coronavirus State Actions Chart*, 2020).

Participants were 60% female, 38.5% male, and 1.5% other gender (including nonbinary and transgender), and primarily involved in different-sex relationships (92%). Forty one percent of participants had children under the age of 18 living with them at T2 and T3, with 1.79 children on average ( $SD = .84$ ) and an average age of 6.5 years ( $SD = 4.9$ ) of the youngest child. Participants were primarily White (82%), with 5% Black or African American, 5% Hispanic/Latino, 4% Asian/Asian American, 3% Mixed Race, and <1% each American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, and Other.

Median household income was \$50,000-\$59,999, with 10% of households making less than \$20,000 annually, 23% of households making \$20,000-\$40,000, 20% of households making \$40,000-\$60,000, 15% of households making \$60,000-\$80,000, 12% of households making \$80,000-100,000, and 20% of households making greater than \$100,000 at T1. Nine percent of participants had a high school degree or less, 30% had some college or an Associate's degree, 36% had a Bachelor's degree, and 25% had a graduate degree. At T2, 28% of participants were

employed and still working at their workplace, 35% were employed but working from home because of coronavirus, 22% were unemployed prior to the pandemic, 12% were unemployed because of the pandemic, and 3% were students. At T3, all employment statuses remained the same, with the exception of 3% of individuals who changed from working at their workplace to working from home.

At T1, relationships averaged 13 years duration ( $SD = 11$  years); 64% percent of participants were married, 5% were engaged, and 31% were in dating relationships. At T2 and T3 89% of couples were living together, 9% were not living together, and 2% did not normally live together, but were living together because of the coronavirus pandemic.

Participants who did not participate in the T2 and T3 follow-ups did not significantly differ from those who participated in the baseline assessment on T1 relationship satisfaction, T1 responsibility and causal attributions, gender, race/ethnicity, and education (all  $ps > .10$ ). Non-respondents did significantly differ on household income, age, relationship length, and marital status (all  $ps \leq .001$ ), such that respondents were ~5 years older, had been in the relationship for ~4 years longer, had higher household income, and were more likely to be married.

## Measures

### *Outcome Variables*

**Relationship Satisfaction.** Global sentiment towards the relationship was measured at all time points with the four-item version of the Couples Satisfaction Index (CSI-4; Funk & Rogge, 2007). The items assessed global satisfaction (e.g., “I have a warm and comfortable relationship with my partner”) and were rated on a 6-point scale (with the exception of one item that is rated on a 7-point scale) with higher scores indicating higher levels of satisfaction. The four items

were summed to form the scale score at each time point, with a possible range of 0 – 25; a total score < 13.5 reflects relationship distress. Cronbach's alpha was >.94 at all time points.

**Relationship Attributions.** Attributions that individuals make for their partner's behavior were assessed at all time points using the Relationship Attributions Measure (RAM; Fincham & Bradbury, 1992). Participants were presented with two negative events that are likely to occur in all intimate relationships ("Your partner criticizes something you say" and "Your partner does not pay attention to what you are saying"). For each event, participants were asked to rate their agreement with each of six response options on 7-point scales, with 1 = *strongly disagree*, 4 = *neutral*, and 7 = *strongly agree*. There are two subscales. The *causal* attribution subscale examines the perceived locus, globality, and stability of the cause of the negative partner behavior (i.e., "The reason my partner criticized me is not likely to change"). The *responsibility* attribution subscale captures the extent to which participants consider their partners' behaviors as intentional, selfishly motivated, and blameworthy (i.e., "My partner criticized me on purpose rather than unintentionally"). A composite score is computed for both subscales by averaging the items in that subscale, with a possible range of 1-7. Higher scores indicate more maladaptive attributions. Cronbach's alpha was >.74 and for causal attributions and >.82 for responsibility attributions at all time points.

### ***Moderator Variables***

**Household Income.** At T1, participants were asked "What is your total household income per year, including all earners in your household (after tax) in USD?" and given 13 response options, ranging from "Less than \$10,000" to "More than \$150,000."

**Education.** At T1, participants were asked "What is the highest level of school you have completed or the highest degree you have received?" with response options being "Less than

high school degree,” “High school degree or equivalent (e.g., GED),” “Some college but no degree,” “Associate degree,” “Bachelor’s degree,” and “Graduate degree.”

**Relationship Length.** At T1, participants were asked “How long have you been in your current romantic relationship (For example: 2 years and 3 months)?” with open-ended numeric response boxes to provide values for years and months.

**Relationship Status.** At all time points, participants were asked “What is your relationship status?” with response options “Single,” “In a relationship,” “Engaged,” and “Married.” Individuals who selected “Single” were removed from analyses as detailed above.

**Cohabitation.** At T2, participants were asked “Are you currently living with your partner?” with response options being “Yes,” “No,” and “We don't usually live together, but have been staying together during the pandemic.”

**Children in Home.** At T2, participants were asked “Do you currently have children under the age of 18 who live with you?” with Yes/No as the response options.

**Negative Experiences of Pandemic.** Negative experiences that participants have had as a result of the pandemic were assessed at T2 and T3 with a 16-item index of yes/no questions. Sample items include “Had a decrease in your salary or wages” and “Had to cancel major plans like a planned trip or vacation.” Participants were coded as having experienced each event if they responded “yes” at either time point; the 16 items were then summed to form the index. The full list of items and their frequencies are provided in Table S1.

**Stress Level from Pandemic.** At T2 and T3 participants were asked “Taking everything into consideration, how stressful overall would you say your experience with the coronavirus pandemic has been on a scale of 0-10, where 0 means not at all stressful and 10 means the most stressful thing you can imagine? You can use any number between 0 – 10.” Final scores for each

participant were calculated by averaging their scores at T2 and T3. The correlation between T2 and T3 was  $r(641) = .68, p < .001$ .

**Relationship Coping.** This construct was assessed at T2 and T3 with a 6-item scale. At T2 the questions were prefaced with the statement “This section asks questions about how you and your partner have been doing since the coronavirus pandemic started. Throughout the last few weeks, since the pandemic made it to the U.S. ...” At T3 the questions were prefaced with the statement “This section asks questions about how you and your partner have been doing over the past month. Over the past month...” Participants were then asked questions such as “How well did you think you and your spouse worked together as a team?” “How often have the two of you helped each other relax with pleasant activities?” and “How often have you felt that household chores/tasks have been shared fairly between you and your partner?” All items were scored on a 5-point Likert-type scale with response options ranging from 1 = *Very rarely* to 5 = *Very often*. The six items were averaged at each time point to form T2 and T3 scores, which were then averaged to form the final score. Cronbach’s alpha was .88 and .87 respectively. The correlation between T2 and T3 was  $r(652) = .74, p < .001$ .

**Relationship Conflict.** This construct was assessed at T2 and T3 with a 2-item scale. At T2 the questions were prefaced with the statement “This section asks questions about how you and your partner have been doing since the coronavirus pandemic started. Throughout the last few weeks, since the pandemic made it to the U.S. ...” At T3 the questions were prefaced with the statement “This section asks questions about how you and your partner have been doing over the past month. Over the past month...” Participants were then asked “How often have you become irritated or angry at your partner?” and “How often have you argued with your partner?” Both items were scored on a 5-point Likert-type scale with response options ranging from 1 =

*Very rarely* to 5 = *Very often*. The two items were averaged at each time point to form T2 and T3 scores, which were then averaged to form the final score. Cronbach's alpha was .84 and .83. The correlation between T2 and T3 was  $r(652) = .67, p < .001$ .

### **Analytic Plan**

Analyses were conducted using multilevel modeling in Stata/IC 14.2 (StataCorp, 2015) to model the repeated measures nested within each participant. A series of models was estimated for each of the three outcome variables (relationship satisfaction, causal attributions, and responsibility attributions) to first determine whether a quadratic model or a linear model was a better fit to the data. Time was coded in weeks, with T1 = 0, T2 = 16, and T3 = 20. For all three outcome variables the quadratic time coefficient was non-significant (all  $ps > .25$ ), indicating that the time trend was not curvilinear. Thus, a linear growth model was implemented to estimate the average degree of change in each construct over time. Random effects were examined to determine whether there was significant variability in the slope terms to support testing of moderators. Once significant variability in slopes was established, the ten moderator variables were then examined individually. The Holm-Bonferroni correction procedure (Holm, 1979) was applied to the ten tests of moderation within each of the three outcome variables to adjust the family-wise error rate for multiple tests. When significant moderation was indicated, simple slopes were analyzed at the mean and one standard deviation above and below the mean of the moderator variable.

## **Results**

### **Descriptive Statistics**

At T1 there was a broad range of relationship functioning, as expected from a large, socioeconomically diverse, community sample of couples across relationship stages.

Participants' relationship satisfaction was 15.48 on average ( $SD = 4.56$ ), two points above the distress cutoff score of 13.5; causal attributions were 4.29 ( $SD = 1.06$ ); and responsibility attributions were 3.72 ( $SD = 1.20$ ), respectively.

At T2 and T3 participants had experienced a moderate level of negative experiences from the pandemic (mean = 6.48,  $SD = 2.56$ , range = 0-15 out of 16 possible). The three most frequently endorsed items were "Been worried about the health of members of your family" (91%), "Felt isolated from other people" (77%), and "Had difficulty obtaining the foods you usually eat" (68%). Notably, 41% of participants reported a decrease in their salary or wages, 22% reported not having enough food to eat, and 15% had lost their job. Participants also reported a broad range of stress levels due to the pandemic; mean = 5.74,  $SD = 2.04$ , range = 0-10 out of 10 possible.

Auto-correlations between outcome variables at the three time points ranged from  $r = .58$  - .85. Inter-correlations between the outcome variables were all significant and in the expected directions, ranging from  $r = |.40 - .67|$ . A full correlation matrix of the nine outcome variables is given in Table S2.

### **Changes in Relationship Functioning Over Time**

On average, relationship satisfaction and causal attributions did not significantly change over time (slope =  $-.008$ ,  $p = .171$ , 95% CI  $[-.019, .003]$ ,  $r = -.05$ ; slope =  $.001$ ,  $p = .680$ , 95% CI  $[-.003, .004]$ ,  $r = .02$ ). Responsibility attributions significantly decreased on average (slope =  $-.010$ ,  $p < .001$ , 95% CI  $[-.015, -.006]$ ,  $r = -.20$ ). For all three outcomes, there was significant variance in the slope terms (relationship satisfaction random effect =  $.006$ , 95% CI  $[.004, .009]$ , causal attributions random effect =  $.001$ , 95% CI  $[.001, .001]$ , responsibility attributions random effect =  $.001$ , 95% CI  $[.001, .001]$ ), indicating that there was significant variability in the degree

of change over time across the sample and supporting the examination of potential moderating effects to better understand this variability.

### **Moderators of Change in Relationship Functioning**

There was an identical pattern of results for the three outcome variables (see Table 1 for test statistics). Demographic variables—income, education, relationship status, cohabitation status, relationship length, and the presence of children in the home—did not moderate slopes in relationship satisfaction, causal attributions, or responsibility attributions. Similarly, the index of negative experiences of the pandemic and stress level from the pandemic did not moderate change in the outcome variables. However, changes in relationship satisfaction, causal attributions, and responsibility attributions were significantly moderated by levels of relationship coping and relationship conflict; these moderation effects were small to medium in magnitude ( $r_s = .12 - .27$ ).

Simple slopes (shown in Figure 1) indicated that individuals with higher levels of coping increased in relationship satisfaction and decreased in causal and responsibility attributions, whereas individuals with lower levels of coping decreased in relationship satisfaction, increased in causal attributions, and maintained stable responsibility attributions. In practical terms, individuals who were 1 SD above the sample mean on relationship coping increased in relationship satisfaction from a mean score of 18.17 to 18.77 (on a 26-point scale) and decreased from a mean score of 3.91 to 3.71 in causal attributions and from 3.24 to 2.84 in responsibility attributions (both on a 7-point scale) over the 20 weeks. Individuals who were 1 SD below the sample mean on relationship coping decreased in relationship satisfaction from 12.53 to 11.73 (on a 26-point scale), increased in causal attributions from a score of 4.70 to 4.90 (on a 7-point scale), and remained stable in responsibility attributions over the 20 weeks. Notably, these

participants entered the study with a relationship satisfaction score that was already below the distress cutoff of 13.5 and exhibited further declines over the early months of the pandemic.

Conversely, individuals with lower levels of conflict increased in relationship satisfaction and decreased in causal and responsibility attributions, whereas individuals with higher levels of conflict decreased in relationship satisfaction, increased in causal attributions, and maintained stable responsibility attributions. In practical terms, individuals who were 1 SD below the sample mean on relationship conflict increased in relationship satisfaction from a mean score of 17.44 to 17.84 (on a 26-point scale), and decreased from 3.95 to 3.75 in causal attributions and 3.28 to 2.88 in responsibility attributions (both on a 7-point scale) over the 20 weeks. Individuals who were 1 SD above the sample mean on relationship conflict decreased in relationship satisfaction from a score of 13.33 to 12.73 (on a 26-point scale), increased in causal attributions from a score of 4.65 to 4.85 (on a 7-point scale), and remained stable in responsibility attributions over the 20 weeks. As with coping, individuals who were 1 SD above the sample mean on conflict entered the study with a relationship satisfaction score that was already below the distress cutoff of 13.5 and exhibited further declines over the early months of the pandemic.

### **Discussion**

Bowlby (1973) observed that family members stay in close proximity for days or weeks after a disaster because the affiliation is comforting during a crisis. In the case of the COVID-19 pandemic, however, close proximity to family members was not a choice due to government orders to socially isolate, raising questions about how relationships fared during this time. Overall, the results of this large, well-powered national study indicate that the experience of the early weeks of a global pandemic did not erode relationship satisfaction on average, and people even became more forgiving and less blaming of their partner's negative behaviors by attributing

them less to their partner's internal characteristics. The high salience of the pandemic as a stressor likely increased people's ability to see it as a potential driver for their partner's behaviors, compared to smaller daily stressors which are often overlooked as a source of partner's behavior (Tesser & Beach, 1998). These results were true irrespective of multiple characteristics, including demographics of the partners, pre-existing characteristics of the relationship, and negative experiences resulting from the pandemic. However, there were small moderation effects based on relationship behaviors during the early months of the pandemic. Individuals who engaged in positive coping efforts and were able to avoid conflict with their partner during this time experienced a small increase in relationship satisfaction and adaptive attributions, modestly enhancing already high functioning, whereas individuals who reported poor coping and high conflict experienced a small decrease in relationship satisfaction and adaptive attributions, modestly decreasing already distressed functioning.

As the COVID-19 pandemic continues, more research is needed to understand its impact on couple relationships, including whether the short-term changes in attributions observed here will be maintained and whether changes in relationship satisfaction will arise as couples deal with the pandemic's increasing toll. Additionally, the extent to which the pandemic will have broader effects on couples' decisions to marry, have a child, or divorce (e.g., Cohan & Cole, 2002) remains to be seen. Finally, for couples who are experiencing difficulties in their relationships during this stressful period, the availability of evidence-based online relationship interventions (e.g., Doss et al., 2020) has become more important than ever in overcoming barriers to treatment. Future research should examine whether uptake of these interventions increased during this time, and whether couples present for treatment with different levels of distress or qualitatively different problems than in the past (e.g., Roddy et al., 2019).

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Table 1. Results of Multilevel Models Testing Moderators of Changes in Relationship Satisfaction and Attributions

	Relationship Satisfaction			Causal Attributions			Responsibility Attributions		
	ModXTime Coef.	<i>r</i>	95% CI	ModXTime Coef.	<i>r</i>	95% CI	ModXTime Coef.	<i>r</i>	95% CI
Household income	.01	.02	[.00, .01]	.01	-.03	[.00, .01]	-.01	-.01	[-.01, .00]
Education									
High School	.03	.01	[-.14, .19]	.02	.03	[-.04, .08]	.01	-.01	[-.07, .05]
Some college	.03	.01	[-.13, .19]	.03	.03	[-.03, .08]	-.01	.01	[-.05, .07]
Associate degree	.01	.00	[-.16, .18]	.03	.03	[-.03, .08]	.01	.00	[-.06, .06]
Bachelor’s degree	.01	.01	[-.15, .18]	.02	.03	[-.04, .08]	.00	.01	[-.05, .07]
Graduate degree	.03	.01	[-.13, .19]	.02	.03	[-.03, .08]	.01	.01	[-.05, .07]
Relationship status									
Engaged	.01	.00	[-.05, .05]	.01	.01	[-.07, .02]	.01	-.02	[-.02, .01]
Married	.01	.03	[-.02, .03]	.01	.01	[-.01, .01]	.01	-.01	[-.01, .01]
Cohabitation									
Not cohabiting	.01	.00	[-.04, .04]	.01	.01	[-.01, .01]	.01	.02	[-.01, .02]
Cohabiting because of the pandemic	.02	.02	[-.06, .09]	-.03*	-.08	[-.06, .00]	.01	.00	[-.03, .03]
Relationship length	.01	.06	[.00, .01]	.01*	.09	[.00, .01]	.01	.01	[.00, .01]
Children in home	.01	-.01	[-.02, .02]	.01*	.08	[.00, .02]	.01	.01	[-.01, .01]
Negative experiences of pandemic	-.01*	-.10	[-.01, .00]	.01*	-.09	[.00, .01]	.01	-.06	[.00, .01]
Stress level from pandemic	.01	-.03	[-.01, .01]	.01*	-.09	[.00, .01]	.01**	-.11	[.00, .01]
Relationship coping	<b>.05***</b>	<b>.27</b>	<b>[.03, .06]</b>	<b>-.01***</b>	<b>-.20</b>	<b>[-.02, -.01]</b>	<b>-.01***</b>	<b>-.21</b>	<b>[-.02, -.01]</b>
Relationship conflict	<b>-.03***</b>	<b>-.17</b>	<b>[-.04, -.02]</b>	<b>.01***</b>	<b>.14</b>	<b>[.00, .01]</b>	<b>.01**</b>	<b>.12</b>	<b>[.01, .01]</b>

Note. *N* = 654. Ten moderator variables were tested for each of the three DVs. Education, relationship status, and cohabitation were tested as categorical variables with “Less than HS degree,” “Dating,” and “Cohabiting” used as the respective reference groups. Coefficients in bold are those that remain significant after a Holm-Bonferroni correction for multiple tests was applied to the coefficients within each DV. Effect size *r* is equal to  $Z/\sqrt{N}$ .

\**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

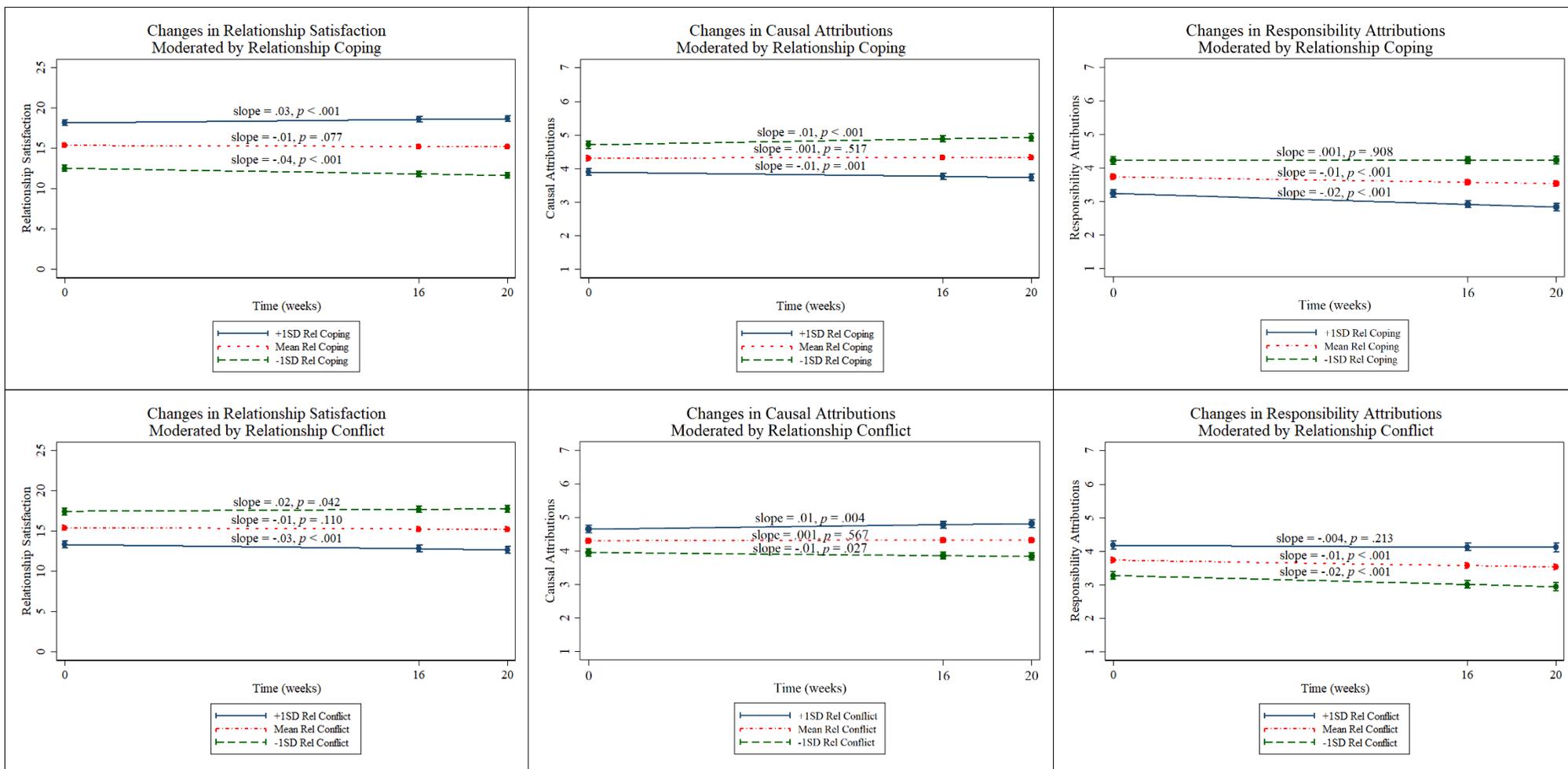


Figure 1. Graphs of significant moderator variables with simple slopes. Bars around point markers represent 95% CIs.

Table S1. Descriptive statistics of individual items comprising the Negative Experiences of Pandemic Index

Item	Percent selecting "Yes"
Been worried about the health of members of your family	91%
Felt isolated from other people	77%
Had difficulty obtaining the foods you usually eat	68%
Had to cancel major plans like a planned trip or vacation	67%
Been asked or required to work from home	53%
Had arguments or conflict with people close to you because of how they are responding to the pandemic	47%
Had a decrease in your salary or wages	41%
Had extra expenses (e.g., for medical care, higher utility bills, etc.)	39%
Lost money due to the cancellation of events, activities, childcare, trips, etc.	33%
Partner had a decrease in his/her salary or wages	31%
Partner been required to work in conditions that he/she feels are unsafe	24%
Not had enough food to eat	22%
Been unable to afford necessary items (e.g., food, medication)	19%
Been required to work in conditions that you feel are unsafe	17%
Lost your job	15%
Partner lost his/her job	13%

Note.  $N = 654$

Table S2. Correlation matrix of outcome variables

	T1 Relationship Satisfaction	T1 Causal Attributions	T1 Responsibility Attributions	T2 Relationship Satisfaction	T2 Causal Attributions	T2 Responsibility Attributions	T3 Relationship Satisfaction	T3 Causal Attributions	T3 Responsibility Attributions
T1 Relationship Satisfaction	1								
T1 Causal Attributions	-0.489***	1							
T1 Resp. Attributions	-0.468***	0.639***	1						
T2 Relationship Satisfaction	0.784***	-0.397***	-0.398***	1					
T2 Causal Attributions	-0.473***	0.581***	0.457***	-0.522***	1				
T2 Resp. Attributions	-0.437***	0.485***	0.622***	-0.536***	0.667***	1			
T3 Relationship Satisfaction	0.787***	-0.396***	-0.382***	0.853***	-0.494***	-0.508***	1		
T3 Causal Attributions	-0.470***	0.559***	0.463***	-0.479***	0.688***	0.547***	-0.519***	1	
T3 Resp. Attributions	-0.451***	0.478***	0.627***	-0.480***	0.532***	0.736***	-0.509***	0.681***	1

Note.  $N = 654$ . \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$