

# Leading Through COVID-19: The Impact of Pandemic Stress and What Leaders Can Do About It

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# Executive Summary

The COVID-19 pandemic fundamentally affected personal and professional lives around the globe in 2020 and 2021, changing the demands on leaders and organizations. In this paper, we investigate how the pandemic and its associated significant disruptions and stressors impacted leaders and organizations via data analysis of nearly 300 leaders across all leader levels; we also explore the downstream consequences of the pandemic on leaders, and how to use those insights to inform future actions in the midst of changing and challenging times. Specifically, we explore the following research questions:

1. Has the COVID-19 pandemic impacted leaders differently depending on their background (e.g., gender) and circumstances (e.g., remote work status)?
2. Is COVID-related stress negatively related to job satisfaction and wellbeing and/or positively related to burnout?
3. Is COVID-related stress related to resilience, gratitude and intolerance of ambiguity?
4. Do resilience, gratitude, and intolerance of ambiguity influence the relations between COVID-related stress and work-related outcomes?

Results of the study confirmed that the answer to all four of these questions is “yes.”



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# Introduction

The arrival and spread of COVID-19 significantly impacted the lives of millions across the globe, resulting in medical, financial, and psychological hardships; and (as of February, 2021) over two million lives lost. It also disrupted the workplace as we know it, with thousands of leaders trying to navigate unknown and unprecedented territory. For some, this disruption took the form of working from home full-time rather than reporting to the office. For those who did not shift to remote work, their day-to-day work lives may have changed drastically (e.g., wearing personal protective equipment, adhering to new safety/procedural protocols, etc.). Many organizations suffered significantly in terms of business and revenue, resulting in furloughs and layoffs. And many leaders faced significant challenges, such as creating new norms and procedures for communication, handling fluctuating infrastructure demands, and shifting cultures and expectations during a period of enormous uncertainty. According to the Bureau of Labor Statistics, in April 2020 alone more than 18 million U.S. workers were furloughed (Nova, 2020). Financial difficulties were one element of disruption; many others included personal and professional hardships, such as increased stress and anxiety. Any and all of these disruptions in turn can lead to a whole host of related effects, including stress and anxiety about the pandemic itself.

In recent months, researchers have shed light on the overall psychological impact of the COVID-19 pandemic. For example, a systematic review of the research on quarantining found that individuals often experience negative psychological effects when quarantining, such as feeling frustrated and isolated (Brooks et al., 2020). There has also been a focus on the idea of “COVID-19 associated stress”; for example in one study, researchers found that COVID-related stress was significantly positively related to anxiety, depression, and functional impairment (Gallagher et al., 2020). Researchers have also developed a new measure to assess “COVID-19 burnout” (i.e., how burned out and worn out people are from enduring the COVID-19 pandemic), and found evidence that COVID-19 pandemic burnout was positively

related to COVID-related stress and negatively related to resilience (Yıldırım & Solmaz, 2020). Relatedly, Trzebiński and colleagues (2020) found that having high meaning in life, life satisfaction, and basic hope acts as a buffer against COVID-related anxiety. However, more research is needed to understand how the COVID-19 pandemic is impacting work functioning and what factors might help mitigate this impact.

At the Center for Creative Leadership, we have a rich history of exploring the concept of resilience, including its relations to leadership and organizations and how to most effectively help leaders cultivate it. Upon seeing the significant challenges brought on by the COVID-19 pandemic, we sought to explore how to most effectively support leaders in such uncertain times. At a broader level, we wanted to better understand how the pandemic and its associated significant disruptions and stressors have impacted leaders and organizations. In this paper, we share the results of a study conducted with nearly 300 leaders, in which we explore how COVID-related stress has impacted leaders around the world. We also offer empirically supported tips and advice about what both leaders and organizations can do to help mitigate some of the stress of this tumultuous time.

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## The Current Study

In the current study, we explored the relations between COVID-related stress and three important outcomes for leaders: burnout, job satisfaction, and overall wellbeing. We also explored whether resilience, gratitude, and intolerance of ambiguity play a role in the connection between COVID-related stress and burnout, job satisfaction, and wellbeing. Specifically, we believe that these three skills may alleviate COVID-related stress (e.g., having more resilience may prevent COVID-related stress from impacting job satisfaction). These “mediating variables” (as researchers refer to them) are critical to understand, as they could offer ways to support leaders during the pandemic (e.g., offering resilience training as a COVID-related stress intervention).

A natural first mediator to explore was resilience, given its history as a potentially effective way of coping with stress and burnout. Gratitude was selected because it is a key resilience practice during times of crisis (Fernandez, Clerkin, & Ruderman, 2020). Finally, research has found that intolerance of ambiguity is a risk factor for a variety of maladaptive psychological outcomes, such as stress (Bardeen et al., 2017); this finding, coupled with the enormous uncertainty that accompanied the arrival and course of the COVID-19 pandemic, made it an ideal candidate for examining potential relations to COVID-19 stress. In addition to these topics, we also assessed background characteristics of participants (e.g., demographic information such as gender and age) and work-related changes due to the COVID-19 pandemic (e.g., whether the participant was working remotely, had experienced changes in hours worked, etc.).

### What is COVID-related Stress?

A unique aspect of the current paper is that it focuses on *COVID-related stress*; most past studies on stress in the context of leadership have focused on other types of stress, such as general stress or work-related stress (e.g., Harms et al., 2017). However, given the unique, pervasive, and intrusive nature of the COVID-19 pandemic in people’s lives, we wanted to explore the effects and relations of COVID-related stress, specifically, in leaders. In the current study, we included three specific components in our assessment of COVID-related stress; these three were selected because of their perceived relevance to how COVID-related stress may impact a leader in the context of their daily work life. Namely:

- (a) compulsive checking and reassurance seeking behaviors regarding COVID-19 worries (e.g., checking your body for signs of infection),
- (b) experiencing traumatic stress responses to COVID-19 (e.g., having difficulty concentrating because you keep thinking about the virus), and
- (c) feeling threatened by the virus (e.g., worrying that you or people you love will get sick from the virus).

## What is Resilience?

Resilience is responding adaptively to challenges, whether those challenges are everyday stressors or major societal disruptions. Resilience helps you get back up again, stronger, after meeting life's hurdles, disappointments, and failures. Self-generated and renewable, it is essential for building a long-term successful leadership career. We view resilience from a whole-self perspective, noting that it has mental, social, emotional, and physical components (Fernandez, Clerkin, & Ruderman, 2020). A variety of empirically supported practices have been identified that help leaders cultivate resilience—one such practice we examine in the current study is gratitude.

## What is Gratitude?

Gratitude reflects being thankful for what we have. We feel gratitude when we realize that a (tangible or intangible) benefit has been given to us that we didn't necessarily do anything to earn. It is considered a complex social emotion because it requires us to be aware of the role that others play in our lives. Researchers have found gratitude to be related to many forms of wellbeing, including higher self-esteem, boosted physical health, better sleep, and greater life satisfaction (Jackowska, Brown, Ronaldson, & Steptoe, 2016; Wood, Joseph, & Maltby, 2009). It has also been shown to be an effective protective mechanism during times of crisis, disaster, or trauma (Lies, Mellor, & Hong, 2014; Vieselmeyer, Holguin, & Mezulis, 2017). Furthermore, it has been linked to decreased burnout (Chan, 2011) and increased job satisfaction (Waters, 2012).

## What is Intolerance of Ambiguity?

Intolerance of ambiguity is an individual difference that reflects how accepting people are of uncertainty. People who are more *intolerant* of ambiguity have a higher need for closure, structure, and certainty. On the other hand, people who are more *tolerant* of ambiguity are more comfortable with lack of clarity and certainty. While being intolerant of ambiguity is not inherently good or bad, previous research has shown that people who have higher tolerance for ambiguity fair better adjusting to change (e.g., Nicolaidis & Katsaros, 2011).

## Hypotheses

Because COVID-related stress is a new topic to research, especially within a leadership population, this study was largely exploratory. However, we also made several predictions based on past research on stress responses and resilience. Specifically, we hypothesized that:

1. The COVID-19 pandemic has impacted leaders differently depending on their background (e.g., demographic variables such as gender) and circumstances (e.g., remote work status).
2. COVID-related stress would be negatively related to job satisfaction and wellbeing and positively related to burnout.
3. COVID-related stress would be negatively related to resilience and gratitude and positively related to intolerance of ambiguity.
4. Resilience, gratitude, and intolerance of ambiguity would all influence the relations between COVID-related stress and work-related outcomes; more specifically, resilience and gratitude would help ameliorate the negative effects of COVID-related stress on work-related outcomes and intolerance of ambiguity would amplify the negative effects of COVID-related stress on work-related outcomes.

Results of the study confirmed all four hypotheses.

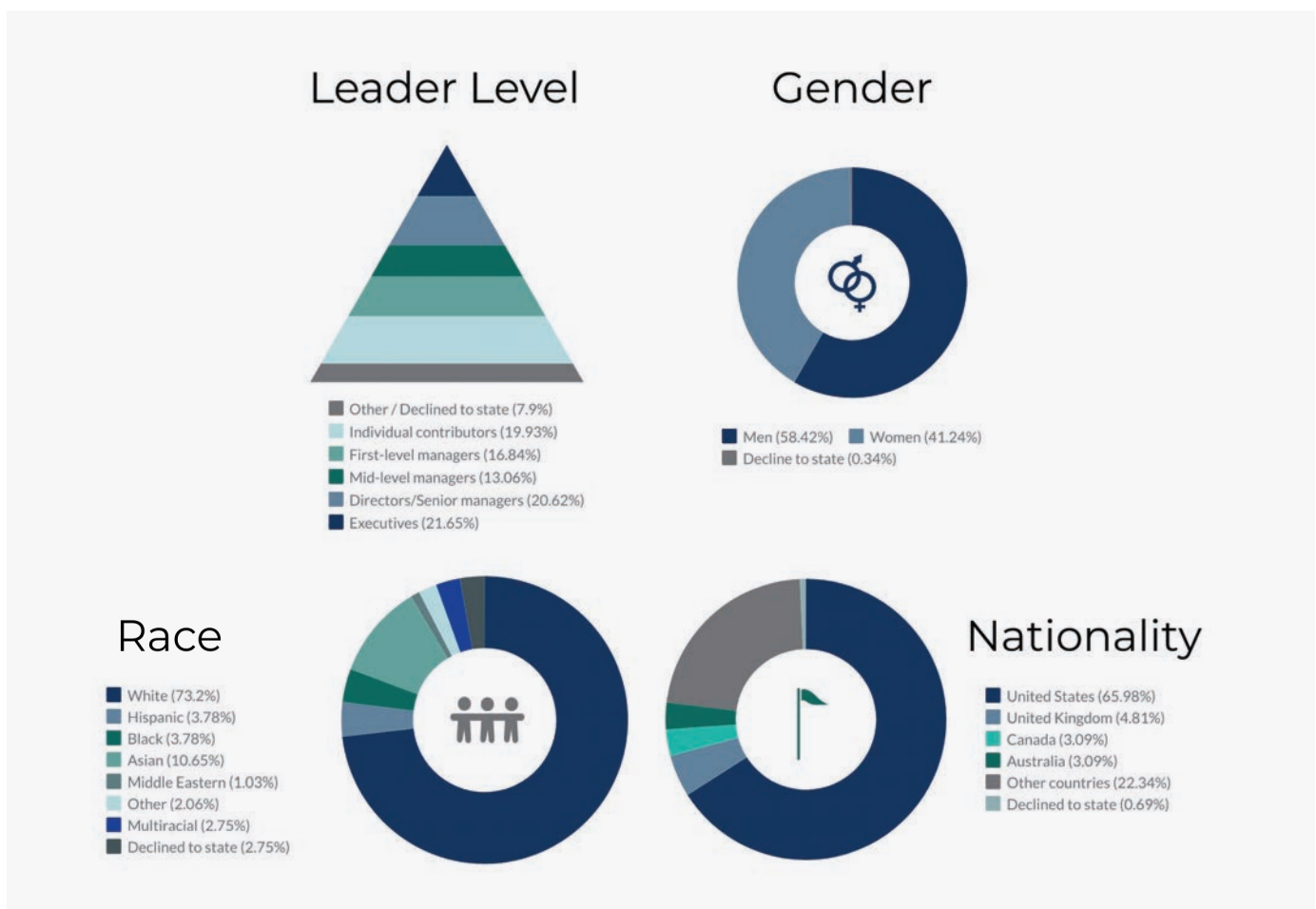


# Research Methods and Analyses

## Who We Surveyed

From June 29th through July 14th of 2020, we asked just over 2,000 leaders across the globe how they were doing during the COVID-19 pandemic. A total of 291 leaders from all levels and industries volunteered to participate in this project through CCL's Leading Insights online research panel. In the current sample, participants ranged from 30 to 80 years old (average age = 54.8 years); 170 participants identified as male and 120 identified as female. The majority were White and from the United States.

FIGURE 1. STUDY SAMPLE



## What We Asked

A confidential online survey was distributed to all members of the panel consisting of questions aimed at better understanding what leaders are going through during this difficult time (detailed descriptions of these measures available in Appendix A).

## How We Analyzed the Data

Results shared in this paper were analyzed using the statistical programs SPSS and MPlus. Analyses used include descriptive statistics, t-tests, ANOVAS, Pearson's correlations, and structural equation modeling. We focus on statistically significant results (unless otherwise noted).

## Key Findings

### COVID-related Stress is Taking a Toll on Leaders

Overall, leaders reported a moderate amount of COVID-related stress (average score = 43.64; possible score range = 18 to 102). Consistent with our predictions, COVID-related stress had a negative effect on leaders; more specifically, we found that COVID-related stress was related to lower overall job satisfaction and wellbeing and higher levels of burnout. Additionally, COVID-related stress was significantly related to lower resilience and gratitude and significantly related to higher intolerance of ambiguity (see Appendix B for a full correlation table). In sum, leaders who reported more COVID-related stress were less satisfied with their job, less grateful, and less resilient; they were also more burned out and intolerant of ambiguity.

**What these findings mean for leaders and organizations.** These results make it clear that the COVID-19 pandemic is impacting workplace wellbeing. Leaders are feeling burned out, and those who report feeling a lot of COVID-related stress, such as worrying about getting the virus or feeling unable to focus due to the pandemic, are suffering more than others. These findings suggest that now is the time to double down on resilience because resilience helps buffer against stress and burnout. Leaders can utilize a variety of resources to focus on cultivating their own resilience (e.g., by engaging with evidence-based resilience practices such as gratitude), and organizations can support leaders in their cultivation of resilience (e.g., by offering resilience programs or resources). To learn more about evidence-based resilience practices, check out CCL's Research Insights paper focused on a new framework for cultivating resilience (Fernandez, Clerkin, & Ruderman, 2020).

## How Much COVID-related Stress are You Experiencing?

The questions below can help get a pulse of where you are when it comes to the experience of COVID-related stress.

*How frequently have you experienced each problem in the past seven days?*

Rate yourself on scale from  
1=never to 5=almost always

1. I have searched the Internet for treatments for COVID-19.
2. I am stressed around other people because I worry I'll catch COVID-19.
3. I had trouble concentrating because I kept thinking about COVID-19.
4. I have sought reassurance from friends or family about COVID-19.

Sum your answers for a score between 4 and 20. The higher your score, the more COVID-related stress you are currently experiencing.

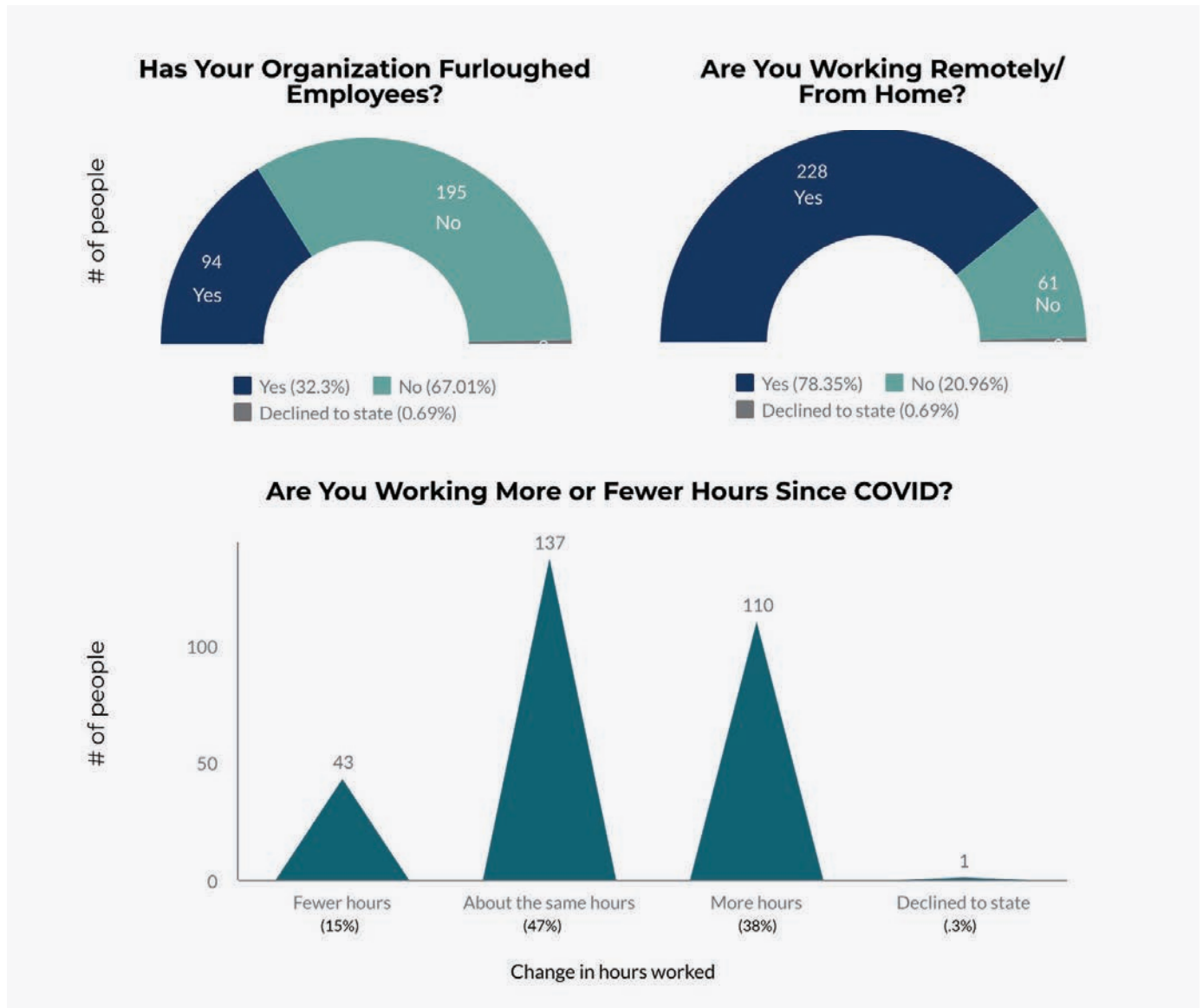
*(Sample items adapted from: Taylor et al., 2020 and Conway et al., 2020)*



## The COVID-19 Pandemic Has Changed How, When, and Where We Work

Many leaders also shared that their work and workplace have changed during the pandemic. In particular, we examined three workplace changes: remote work, company furloughs, and work hours.

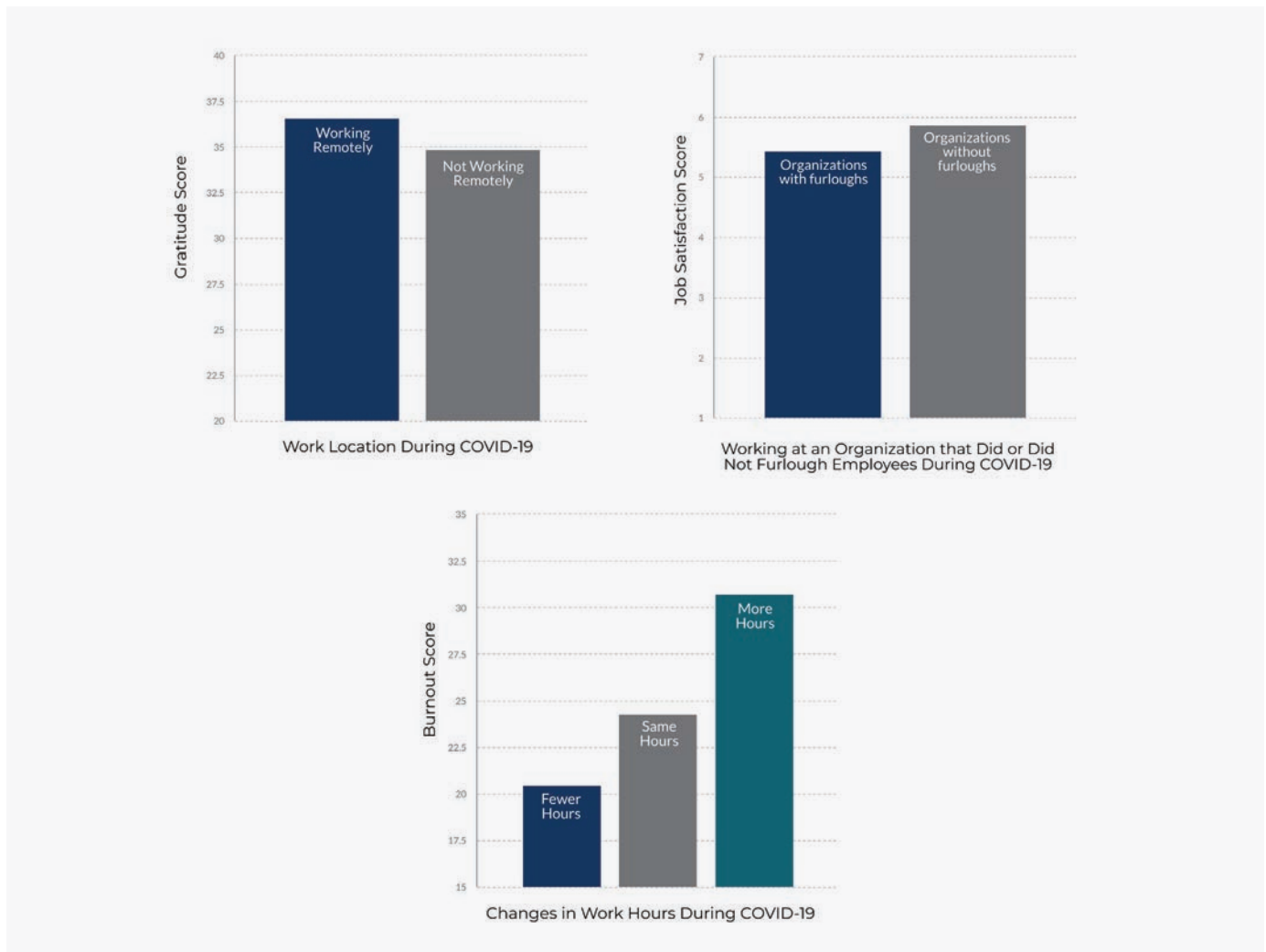
FIGURE 2. WORKING DURING COVID



Here are some key findings regarding how work has changed and how it has impacted leaders.

- Individuals who reported working remotely felt higher levels of gratitude compared to those not currently working from home ( $t = 2.27, p = .024$ ).
- Individuals who reported their organizations have furloughed employees reported lower job satisfaction compared to those in organizations which had no furloughs ( $t = -2.73, p = .007$ ).
- Individuals who reported working more hours since the COVID-19 pandemic began reported more burnout, compared to those reporting working about the same number of hours or fewer hours,  $F(2,280) = 16.16, p < .001$ .

**FIGURE 3. HOW WORK HAS CHANGED**

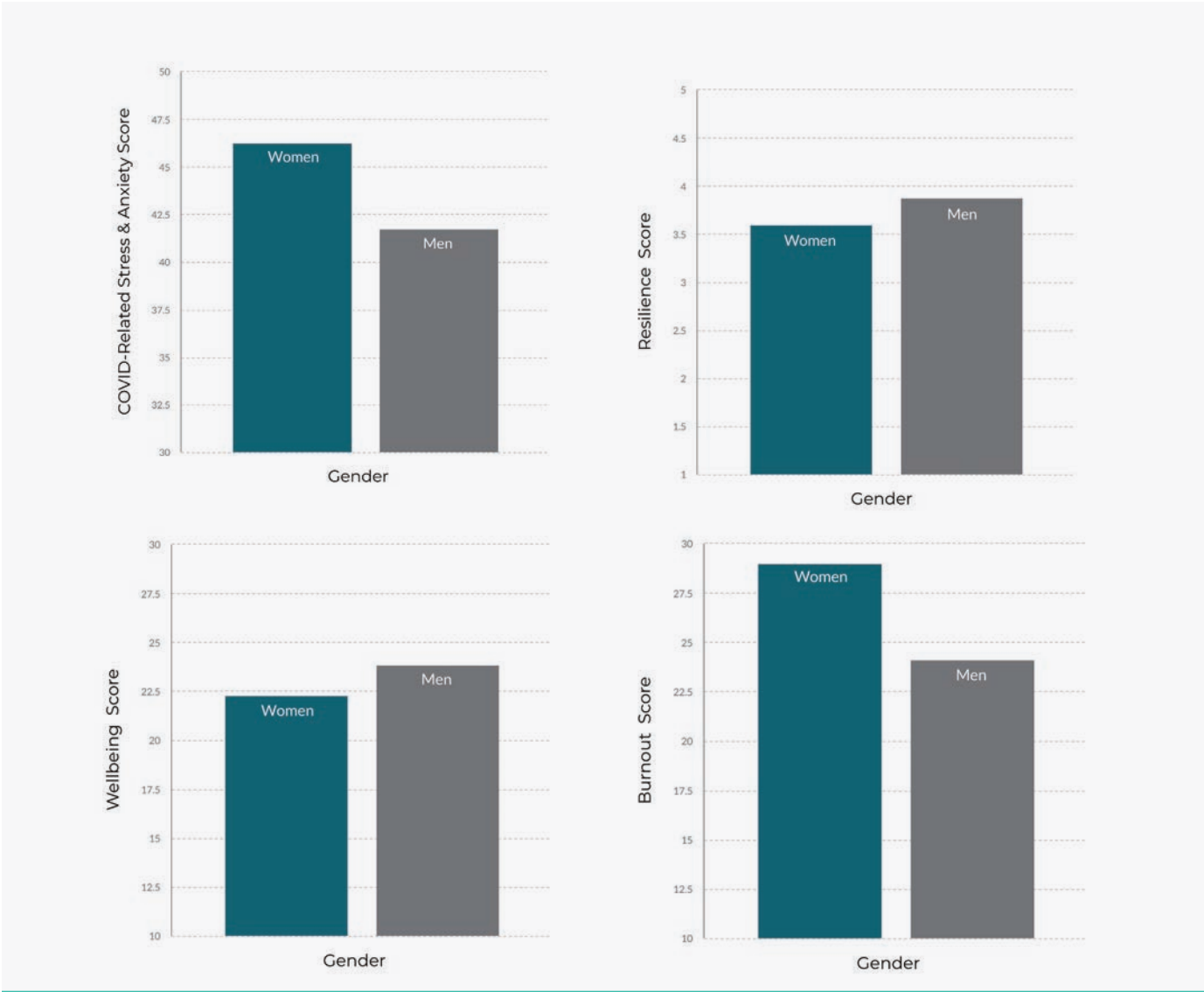


**What these findings mean for leaders and organizations.** These findings highlight the many ways that the nature of work has changed since the beginning of the pandemic and demonstrate how some changes have been more detrimental than others. In particular, the shift to remote work seems to have had some positive effects (in terms of gratitude), while the other trends of increased work hours and furloughs have been potentially more harmful. We encourage organizations and leaders to consider these findings as they plan for the future of the workplace post-COVID-19 pandemic. For example, leaders and organizations may want to consider extending remote and flexible working options even after employees are able to gather together in person.

# The COVID-19 Pandemic has Disproportionately Impacted Women

Compared to men, women reported higher levels of COVID-related stress and burnout and lower levels of resilience and wellbeing. There were no gender differences in gratitude, intolerance of ambiguity, or job satisfaction.

FIGURE 4. IMPACT BY GENDER



While more research is needed to fully understand the role of gender during the pandemic, these results suggest that many women are struggling during the COVID-19 pandemic. We believe that these differences are likely due to the fact that women still tend to be responsible for the majority of the housework and childcare outside of work (Bianchi et al., 2012). As a result, the pandemic might have created additional stress and work for women (e.g., having to cook or clean more if family members spend more time at home, having to homeschool children on top of their usual responsibilities). This is consistent with recent findings by McKinsey & Company (2020) showing that during the COVID-19 pandemic, mothers are more than three times as likely as fathers to be responsible for most of the housework and caregiving. It is worth noting that we ideally would examine these gender results in conjunction with race/ethnicity; however, due to the fact that our sample was heavily White, we did not have the statistical power to examine interactions between gender and race/ethnicity.

**What these findings mean for leaders and organizations.** Leaders and organizations should be aware that women are being disproportionately impacted during this pandemic and take steps to ensure they retain their female talent. If you have direct reports who are women, discuss with them what would be most helpful. For example, organizations could consider offering women (and all employees) flexibility, time off, and additional support. Some organizations are allowing parents to use family and medical leave to homeschool their children during this difficult time. Other organizations are offering free counseling, childcare, or self-care resources.

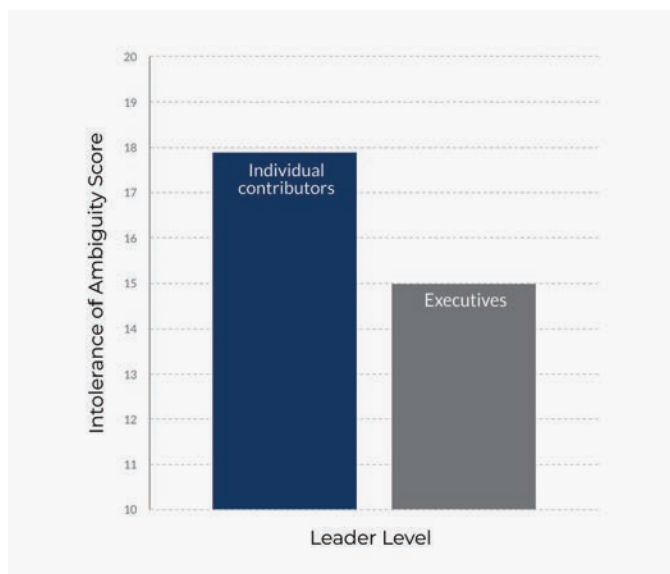
Additionally, women leaders and employees should know that they are not alone. Gender roles and norms seem to be consistently driving stress and burnout among women during this time. We encourage women to be aware of, and prioritize, their own health and wellbeing to whatever extent possible. This could consist of asking for extra support at work or at home or setting boundaries to make sure they do not compromise their wellbeing. To learn more about supporting women at work, check out our research report, *What Women Want—and Why You Want Women—in the Workplace* (Clerkin, 2017).



## Older and More Experienced Leaders May Be Coping Better with the Pandemic

Our results indicate a negative correlation between age and intolerance of ambiguity and burnout and a positive correlation between age and wellbeing. In other words, older people in our study experienced lower levels of burnout, higher levels of wellbeing, and were more comfortable with ambiguity. Similarly, analyses comparing leader levels found statistical differences when it comes to intolerance of ambiguity; executives in particular, rated themselves as more tolerant of ambiguity compared to individual contributors.

**FIGURE 5.**  
INTOLERANCE OF AMBIGUITY



**What these findings mean for leaders and organizations.** Overall, we interpret this pattern of findings to be an optimistic one, suggesting that wisdom does indeed come from experience and that we may be better able to weather uncertainty overtime. However, the flipside of this finding suggests that younger people and those lower in the organization might be having a harder time dealing with the uncertainty of the pandemic. This may be a valid concern, as those less-established in their careers may have less job and/or financial security. We encourage leaders and

organizations to support and protect the younger individuals in their organizations in order to retain talent and create a leadership pipeline. Creating opportunities for information and strategy sharing might be one potential step to consider.

## How Leaders Can Cope with COVID-related Stress

We used advanced statistical (structural equation) modeling to explore what strategies were effective in helping people cope with COVID-related stress. Specifically, we looked at gratitude, tolerance for ambiguity (the alternate to intolerance of ambiguity), and resilience as possible mediating variables that could alleviate COVID-related stress (full analyses available upon request).

Results suggest that resilience, gratitude, and tolerance for ambiguity ameliorated the negative impact of COVID-related stress on job satisfaction and wellbeing. In other words, when looking at individuals reporting COVID-related stress, those who felt more resilient, more grateful, and/or more tolerant of ambiguity had higher job satisfaction and wellbeing. For job satisfaction, specifically, each of these three factors (resilience, gratitude and tolerance for ambiguity) *completely* counteracted the effects of COVID-related stress; once we accounted for them in our analyses, COVID-related stress was no longer related to decreased job satisfaction.

Finally, both resilience and tolerance for ambiguity, but not gratitude, partially decreased the degree to which COVID-related stress led to burnout.

**What these findings mean for leaders and organizations.** The study results have clear implications for leaders and the actions they can take to decrease COVID-related stress, especially leaders still facing the COVID-19 pandemic and/or its consequences. Being open, transparent, and honest about how COVID-related stress can affect leaders' and employees' lives is an invaluable first step. Second, results suggest implementing interventions and programming in the workplace that focus on cultivating resilience, gratitude, and tolerance for ambiguity can be useful in helping

leaders manage the impact that COVID-related stress is having on burnout, job satisfaction, and wellbeing.

**Suggestions for boosting resilience, gratitude, and tolerance for ambiguity.** Interested in using these three interventions to improve your ability to cope with the pandemic? Here are a few ideas to try:

- **Do a Daily Reset:** To help you better cope with stress and ambiguity, try setting aside a time to intentionally step away from the churn of your life. During this time, try doing a mindfulness exercise or a breathing exercise to relax and refocus. Or simply reflect on your thoughts. See if there is anything you want to challenge or change regarding how you are approaching your day.
- **Record Your Gratitude:** Research shows that writing a letter, email, text, or postcard thanking someone for the positive impact they've had in your life is a terrific way to boost your gratitude. Think about someone who makes your life better (e.g., team members, mentors, assistants, life partners) and let them know. You can also keep a journal or list to record and reflect on your gratitude. Just jot down three to five things for which you're grateful. Write your list daily or weekly.
- **Question Distressing Thoughts:** During

stressful situations, it's easy to start worrying about or assuming the worst. Whenever you notice yourself feeling distressed at work—even if it is a mild form of distress, such as boredom or annoyance—take a moment to stop and consider whether you are making assumptions about yourself, the situation, or others. Ask yourself, “Are my assumptions reflecting the whole picture and all perspectives, or just focusing on one, potentially negative, part?” “What feelings does my thought inspire?” “To what extent is this thought useful or motivating, versus causing me distress or demotivating me?” “What does this thought make me want to do?”

To read more about proven ways to cultivate resilience and gratitude and cope with ambiguity, please review CCL's Research Insights paper (Fernandez, Clerkin, & Ruderman, 2020) focused on introducing the CORE framework and/or our upcoming book focused on introducing and expanding on the CORE framework releasing in 2021 by Marian Ruderman, Cathleen Clerkin, and Katya Fernandez.

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## Conclusion

Overall, these results contribute to the leadership literature by demonstrating that COVID-related stress affects multiple areas of functioning, from work variables like burnout and job satisfaction to general wellbeing. They also demonstrate that there is hope, however; more specifically, there is indication that engaging in resilience practices, gratitude practices, and developing one's ability to tolerate ambiguity can all help ameliorate the deleterious effects of COVID-related stress. We hope that this paper will help leaders and organizations better understand the impact that the COVID-19 pandemic has had on the workplace, as well as inspire future research on this topic.

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# APPENDIX A

## Measures Used in Study

<b>COVID-related stress and anxiety</b>	COVID-related stress was measured using the compulsive checking and reassurance seeking subscale and the traumatic stress symptoms subscale from the COVID Stress Scales (Taylor et al., 2020) and the Perceived Coronavirus Threat Questionnaire (Conway, Woodard, & Zubrod, 2020). Participants responded to both COVID Stress Scales 6-item subscales on a scale from 0 (never) to 4 (almost always); both COVID Stress Scale subscales demonstrated good internal reliability (compulsive checking: $\alpha = 0.78$ ; traumatic stress: $\alpha = 0.91$ ). Participants responded to the 6-item Perceived Coronavirus Threat Questionnaire using a Likert-type scale from 1 (not true of me at all) to 7 (very true of me); the scale demonstrated very good reliability ( $\alpha = 0.89$ ).
<b>Job satisfaction</b>	Job satisfaction was assessed via the job satisfaction subscale of the Michigan Organizational Assessment Questionnaire (MOAQ; Cammann et al., 1979; Cammann, 1983). This subscale consists of three items rated on a 1 (strongly disagree) to 7 (strongly agree) Likert-type scale that are summed ( $\alpha = 0.87$ ).
<b>Burnout</b>	Burnout was measured via the 9-item emotional exhaustion subscale of the Maslach Burnout Inventory (MBI; Maslach, 2016). Items were assessed on a 1 (strongly disagree) to 7 (strongly agree) Likert-type scale. ( $\alpha = 0.92$ ).
<b>Wellbeing</b>	The Warwick–Edinburgh Mental Wellbeing Scale (WEMWBS)—Short Version (Stewart-Brown et al., 2009) was used to assess wellbeing. This measure is a 7-item scale employing a 1 (very slightly or not at all) to 5 (extremely) Likert-type response scale. ( $\alpha = 0.84$ ).
<b>Resilience</b>	Resilience was assessed using the Brief Resilience Scale (Smith et al., 2008), a 6-item measure of overall resilience that utilizes a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). ( $\alpha = 0.87$ ).
<b>Gratitude</b>	Gratitude was assessed via the Gratitude Questionnaire-Six Item Form (McCullough et al., 2002). This scale contains 6 items uses a 1 (strongly disagree) to 7 (strongly agree) Likert-type scale. ( $\alpha = 0.82$ ).
<b>Intolerance of ambiguity</b>	To assess participants' intolerance of ambiguity, the Change-Ready Scale—Tolerance of Ambiguity Subscale (Kriegel & Brandt, 2011) was used. This measure contains five items that were assessed on a 1 (not like me) to 6 (exactly like me) Likert-type scale. ( $\alpha = 0.84$ ).
<b>Work changes due to COVID-19</b>	Five items were created to assess work-related changes due to COVID-19. Items were assessed separately in analyses and quoted directly in this paper.

# APPENDIX B

## Zero-order Correlation Table

	COVID Stress	Resilience	Gratitude	IOA	Burnout	JobSat	Wellbeing
COVID Stress	1	-.32**	-.25**	.33**	.34**	-.14*	-.32**
Resilience		1	.37**	-.27**	-.37**	.28**	.47**
Gratitude			1	-.12*	-.15*	.31**	.32**
IOA				1	.29**	-.20**	-.35**
Burnout					1	-.42**	-.46**
JobSat						1	.40**
Wellbeing							1

*Note.* COVID stress = Sum of three COVID-related stress scales (COVID Stress Scales compulsive checking and reassurance seeking subscale, COVID Stress Scales traumatic stress symptoms subscale, and Perceived Coronavirus Threat Questionnaire); Resilience = Brief Resilience Scale total score; Gratitude = Gratitude Questionnaire-Six Item Form total score; IOA = Intolerance of ambiguity as assessed by the Change-Ready Scale—Tolerance of Ambiguity Subscale; Burnout = emotional exhaustion subscale from the Maslach Burnout Inventory; JobSat = job satisfaction subscale from the Michigan Organizational Assessment Questionnaire; Wellbeing = Warwick–Edinburgh Mental Wellbeing Scale (WEMWBS)—Short Version total score.

\*\*  $p < .01$ ; \*  $p < .05$

## About The Authors



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Katya is a Research Scientist at the Center for Creative Leadership. She is interested in exploring the role of emotion regulation in the relationship between cognitive distortions and important workplace outcomes in leaders. She is also broadly interested in how to effectively cultivate resilience in the context of leadership. Katya has a PhD in psychology from Washington University in St. Louis.



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