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COVID-19 and the Workplace:

Implications, Issues, and Insights for Future Research and Action

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Abstract

COVID-19's impacts on workers and workplaces across the globe have been dramatic. We present a broad review of prior research rooted in work and organizational psychology, and related fields, for making sense of the implications for employees, teams, and work organizations. Our review and preview of relevant literatures focuses on: (i) emergent changes in work practices (e.g., working from home, virtual teams) and (ii) emergent changes for workers (e.g, social distancing, stress and unemployment). In addition, we examine the potential moderating factors of demographic characteristics, individual differences, and organizational norms to generate disparate effects. This broad-scope overview provides an integrative approach for considering the implications of COVID-19 for work and organizations while also identifying issues for future research and insights to inform solutions.

***Keywords*:** COVID-19; Employees; Work; Work From Home (WFH); Pandemics

Public Significance Statement

COVID-19 has disrupted work and organizations across the globe. Using prior evidence as the starting point, we provide an overview of emergent changes at work as well as costs and challenges for workers. In addition, we acknowledge the disproportionate impact that COVID-19 may have on workers from different demographic categories and consider the modifying impacts of individual differences and organizational norms. We provide a roadmap for research and practitioners to meet the challenges of the future.

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COVID-19 is both a global health crisis and an international economic threat. The worldwide lockdown of businesses and industries that were implemented and mandated to curb the spread of the virus has generated a wide array of unique challenges for employees and employers. At the individual level, populations of shutdown-affected employees were turned overnight into (a) "work from home" employees, (b) "essential" or "life-sustaining" workers (e.g., emergency room medical personnel and supermarket staff), or (c) furloughed or laid-off employees seeking the nation-specific equivalent of unemployment benefits. Organizationally, the economic shutdowns and policy changes are likely to (*i*) change some industries fundamentally, (*ii*) accelerate trends that were already underway in others, and (*iii*) open opportunities for novel industries to emerge, as typically happens in times of wars and natural disasters (e.g., Sine & David, 2003). Given the uncertainty and breadth of the COVID-19 shock, work and organizational psychologists urgently need to apply the field's current knowledge for the purpose of sensemaking to help individuals and organizations manage risks while developing and applying solutions.

Although it is possible that an effective vaccine or therapeutic treatment becomes available quickly enough to limit the direct impacts of COVID-19 to less than a year, a look at human history is filled with cases where pathogenic microbes have wreaked long-lasting havoc on societies and workplaces (Diamond, 1998). As an example, between 1918-1920, the Spanish flu killed an estimated 50 million people worldwide, many of them adults between the ages of 20 and 50 years. In response, many countries adopted policies to improve health and working conditions by providing either universal health care (Europe) or employer-based insurance

schemes (US). More generally, the financial and health impacts of infectious disease have been linked to tighter cultural norms and practices (Gelfand, 2019), political conservatism and xenophobia (Ji, Tybur & Van Vugt, 2019), and more directive workplace leadership (Van Vugt, Hogan, & Kaiser, 2008). We also know, when considering other recent systemic shocks such as the 9/11/2001 attacks in the United States, that such shocks can produce long-lasting global changes in practices and attitudes towards surveillance, security, and privacy.

We focus on the relevance of COVID-19-related risks and changes for workers, workplaces, and work practices. Our broad survey of topics allows us to identify a variety of economic, social, psychological and health-related risks that workers appear likely to face as either a direct result of COVID-19 or indirectly as a result of economic shutdowns associated with COVID-19 (given that research on prior economic contractions suggests may have adverse – and lethal – health effects [e.g., Popovici & French, 2013]). By focusing on topics that appeared most likely to be influenced by COVID-19 during early and midterm stages of the pandemic, we organized ourselves (as described in the Supplemental Material) to present a review of relevant literatures along with an evidence-based preview of changes that we expect in the wake of COVID-19 for both research and practice. To organize our consideraton of the multiple ways in which the current pandemic is impacting the workplace, this review consists of three main sections (each with three main topical areas): (1) emergent changes in work practices (work from home; virtual teamwork; virtual leadership and management); (2) emergent changes for workers (social distancing and loneliness; health and well-being; unemployment and inequality); and, (3) the importance of moderating factors (demographic characteristics; individual differences; organizational norms).

Beyond reviewing and applying prior research to help make sense of the crisis, we aim to provide a generative overview to help situate and guide future research and theorizing on the impacts associated with COVID-19. In addition, we hope that our effort will help researchers and practitioners take steps to manage and mitigate the negative effects of COVID-19 with evidence-based roadmaps for moving forward. Given the wide-ranging impact of COVID-19, our focus on work and organizational psychology is intended to be broad and inclusive. However, there are inevitably additional "workplace" topics that we may have inadvertently ommitted. Additionally, it is notable that – of the three categories of workers that emerged in the early wake of COVID-19 (those who either started or continued to WFH, those who remained working as "essential" workers, and those who were laid-off or furloughed) – the first topical section of this review focuses on the first of those groups (since they are ones directly impacted by the massive virtualization of work precipitated by COVID-19) while the second topical section (below) intends to address all three groups.

Emergent Changes in Work Practices

At the same time that COVID-19 abruptly upended normal work routines, it also caused an acceleration of trends that were already underway involving the migration of work to online or virtual environments. A key difference, though, is that WFH was previously often responsive to employee preferences but COVID-19 forced many into Mandatory Work From Home (MWFH).

Work from Home (WFH). A Gartner (2020) survey of 229 Human Resources (HR) departments showed that approximately one-half of the companies had more than 80% of their employees working from home during early stages of the COVID-19 pandemic – and estimated substantial long-term increases for remote work after the pandemic. The need for millions of workers to WFH in response to COVID-19 has accelerated recent remote work trends facilitated

by the rise of connectivity and communication technologies. While “remote work” is a broader category since it can include Work From Anywhere (i.e., not necessarily home), we do know that some – such as professionals who need to perform complex tasks that require little interaction with peers – actually prefer and are more productive if they WFH (Allen, Cho, & Meier, 2014). Yet as large numbers of workers are forced to work from home, many face challenges due to such fundamental issues as not having space in one's home to attend to work. For example, employees who live with others also face a larger set of challenges than those who live alone since they need to navigate others' space as well (see later section on Moderating Factors).

Employees often find it challenging to maintain boundaries between work and non-work (Ramarajan & Reid, 2013). The forced confinement of workers during the COVID-19 pandemic has further complicated this issue. While WFH might sound appealing if it offers a safe harbor, the absence of separation between one’s work and home – and the lack of commutes to provide a transition between the two domains – can become a burden too. Questions that would benefit from closer study include: how do our experiences in the work and non-work domains influence each other, and how do our work and non-work identities interact, when they unfold at home?

Given the likelihood that COVID-19 will accelerate trends towards WFH past the immediate impacts of the pandemic (Gartner, 2020), it is clear that the diversity of work arrangements will need to be studied. Future research should examine whether and how the COVID-19 quarantines that required millions to work from home affected work productivity, creativity, and innovation. Given that quarantine periods have entailed literal windows into the homes of co-workers as well as subordinates and superiors, research is also needed to examine the implications of WFH for topics such as motivation and authenticity at work, particularly when it becomes normal again to work in co-located workplace settings.

Independent from challenges that individuals can face when WFH, it is also notable that (a) the reluctance of many employers to adopt WFH before COVID-19 stemmed from a perceived lack of control that employers would have over employees who were out-of-sight and –reach and (b) there is ample reason to expect that new modes of surveillance will accompany various WFH arrangements. Indeed, even before COVID-19, employers were adopting and developing technologies to monitor employees' whereabouts (e.g., with sociometric sensors) (Bhave, Teo & Dalal, 2020). Although managing-by-walking-around is not feasible when people are working remotely, the rapidly expanded usage of videoconferencing has allowed for virtual sight-lines. Yet these virtual sight-lines are fraught with a risk as they increase perceived stress and invade privacy. There is also evidence that such remote and automated monitoring can lead to centralization and (in the absence of countervailing action) contribute to lower creativity among employees working in lower organizational levels (Nell et al., 2020).

Virtual Teamwork. As Mak and Kozlowski (2019) observed *before the pandemic*, "Virtual teams … are growing in number and importance." Rather than assume uniformity in virtual team characteristics, though, it is valuable to recognize that "team virtuality" is a multi-facted concept and encompasses multiple dimensions including the geographical distribution of team members and the relative amounts of (a)synchronous e-communication (Hoch & Kozlowski, 2014). Indeed, a nuanced conceptualizing of virtuality – as a continuous variable, given that teams are not simply *either* face-to-face *or* virtual – has already been developed (Mak & Kozlowski, 2019) and should prove helpful for future researchers who work to classify the different forms of virtual teamwork that have emerged.

Prior research shows that virtual teamwork tends to lack the communication richness available to face-to-face teams (Martins, Gilson, & Maynard, 2004) and that traditional

teamwork problems such as conflict and coordination can escalate quickly (Mortensen & Hinds, 2001). Building structural scaffolds to mitigate conflicts, align teams, and ensure safe and thorough information processing are key recommendations for virtual teams. For example, prior work has shown the need – especially in virtual teams – to formalize team processes, clarify team goals, and build-in structural solutions to foster psychologically safe discussions (e.g., Gibson & Gibbs, 2006).

Increased team virtuality as a result of COVID-19 may also affect helping and prosocial behavior. While physical distancing among co-workers may reduce helping behaviors in the near term, we know that people should be bolder to request help from others since people do tend to be more willing to help, and give better-quality help, than we usually assume (Newark, Bohns, & Flynn, 2017), perhaps especially during crises. Normal impediments to requesting help center on the feeling that it can be uncomfortable, awkward, and embarrassing (e.g., Bohns & Flynn, 2010), but "best practices" in virtual helping can assist help-seekers in overcoming these psychological barriers by maintaining personal privacy (Cleavenger & Munyon, 2017), reducing stigmatization (Ben-Porath, 2002), and instilling hope that things will get better once help is received (McDermott, et al., 2017).

As COVID-19 has accelerated the expansion of virtual teams, it will be valuable for researchers to track and study innovations that may enable such teams to function optimally. For example, the intersection of remote work with a global crisis brings up questions of how emotions, such as anxiety and stress, can best be communicated and regulated in the unique setting of virtually connected work where social and emotional cues are relatively limited (for an overview, see Lindebaum, Geddes, & Jordan, 2018). On the other hand, there are prior studies showing that teams operating online tend to be more effective at brainstorming than face-to-face

teams (e.g., DeRosa, Smith, & Hantula, 2007). In contrast, research focused on individual performance has shown that remotely-interacting teammates appear to miss the creative benefits that can flow from frequent face-to-face interactions (Allen, Golden, & Shockley, 2015). The rapid growth in virtual teams offers an opportunity to examine new questions as well as develop interventions to help improve teamwork in virtual settings; and, in that pursuit, close attention needs to paid to the multidimensional ways in which virtuality varies among remote teams (Mak & Kozlowski, 2019). Regarding work teams outside of virtual settings, there is a rich and growing literature on teamwork in healthcare settings (e.g., emergency rooms) (Salas, Reyes, & McDaniel, 2018) and future research will need to assess how these teams operating in-person but behind masks may function differently than traditional "face-to-face" teams.

Virtual Leadership and Management. The role of leaders to determine organizational outcomes that have a broad impact on employees at all levels is especially clear in the crucible of a crisis and certainly vital in fundamental ways. With the COVID-19 crisis requiring millions of employees across different hierarchical levels to work from home, leadership can also work effectively from a distance (Antonakis & Atwater, 2002). Prior research shows that successful leaders are those skilled to make the right decisions and provide reassurance through a balanced mix of optimism and realism regarding the future. In other words, effective leaders strive (in any time period) to project vision – a symbolic state of affairs with which the collective identifies (Antonakis et al., 2016). Additionally, research indicates that the absence of traditional physical cues of dominance and status in virtual settings (Antonakis & Atwater, 2002) can foster more participatory relationships.

Research on the effectiveness of leaders during and after the COVID-19 crisis should examine an array of activities, including the degree to which remote leaders are persuasive if

they (a) clearly state their values that will guide institutional actions; (b) understand and openly discuss the travails and hopes of their organizations; (c) clearly communicate an ambitious vision of the direction that the unit will head toward; and, (d) demonstrate confidence that strategic goals can be achieved. These skills are referred to as charisma (Antonakis, et al., 2016) and require training and investment. Indeed, crises can bring about changes in leadership styles (Stoker, Garretsen, & Soudis, 2019); thus, firms can expect to be better prepared by ensuring they have adequately invested in professional development. In this respect, future research should estimate if and how organizational commitments to employees' professional development during the COVID-19 crisis pay later dividends. Indeed, at a more basic level, it will be important to assess the degree to which COVID-19-induced changes in training programs (i.e., moving online) will affect the accessibility, efficiency, and efficacy of such programs (Cascio, 2019; Salas et al., 2012).

Among the more specific leader-subordinate activities that will be important to consider in relation to COVID-19 is how assessment and appraisal systems will function. For example, without being able to directly monitor subordinates in the way that office settings allow, there may be a shift to results-focused assessment, which prior research shows to be generally effective (Pritchard et al., 2008). Over longer spans of time, though, working remotely may reduce the opportunities for subordinates to gain feedback from leaders and prior research suggests that a lack of learning opportunities is associated with lower organizational commitment and higher risk of turnover (Vandenberghe et al., 2019). In addition, future research should examine how trust can be built remotely with online interactions so that newcomers are not disadvantaged due to the lack of face-to-face interactions with their supervisors (Dunbar, 2018).

Emergent Changes for Workers

In addition to the immediate impact of COVID-19, there is also likely to be a diverse range of social-psychological, health-related and economic costs of the pandemic for individuals, including for those (a) whose work was made virtual or remote, (b) who continued as "essential" workers, and (b) who were laid-off either temporarily or permanently.

Social Distancing and Loneliness. The loss of social connections – for those who were laid off and those required to WFH is likely to negatively impact workers. We know from research that high-quality social interactions – including informal chats among co-workers – are essential for mental and physical health (Mogilner, Whillans & Norton, 2018). Handshakes that are so valuable for social connection (e.g., Schroeder et al., 2019) are now restricted. Against this backdrop, both the requirement to WFH and plans to de-densify workplaces in support of physical distancing are likely to have side effects that include at least some degree of harm to individuals' mental and physical health (Brooks et al., 2020).

More insidious than the loss of social connections, loneliness is a psychologically painful emotion that results from people's subjective feelings that their intimate and social needs are not adequately met (Cacioppo et al., 2006) and was already considered "an epidemic" (Murthy, 2017) prior to this pandemic. Workplace loneliness has been shown to have strong negative relationships to employees' affective commitment, affiliative behaviors, and performance (Ozcelik & Barsade, 2018). While we noted that virtual communications lack richness, a more negative risk of communications going online is that misunderstandings – in the absence of non-verbal cues – are likely to increase employees' concerns about being interpersonally rejected, contributing to loneliness (Cacioppo et al., 2006).

As organizations look ahead, prior research recommends that workplace loneliness be acknowledged and addressed as an indicator of employee well-being in HR policies, programs, and practices. Close study of innovations that people started initiating within weeks of mandatory shutdowns (e.g., virtual lunch meetings) would also be valuable for informing future practice as well as research intended to help prevent loneliness and increase resilience. Such investigations would complement recent work focused on developing resilience through experimentally tested interventions (Williams et al., 2018).

Health and Wellbeing. Given the uncertainties of the pandemic, organizations need to act of health and well-being of employees. Building on the Job Demands-Resources (JD-R) theory (Bakker & Demerouti, 2017), there is variation across and within industries with respect to how COVID-19 has affected both the demands and resources in jobs. There is evidence suggesting that working conditions have deteriorated for many employees. In light of such strains, COVID-19 has substantially contributed to greater risk of employees encountering job burnout – a chronic stress syndrome, including permanent feelings of exhaustion and a distant attitude toward work (Demerouti et al., 2010). Moreover, the continuous exposure to COVID-19 media news fosters rumination – repetitively and passively focusing on symptoms of distress and on the possible causes and consequences of these symptoms (Nolen-Hoeksema et al., 2008). Past studies have shown that people who were exposed to Hurricane Katrina had above-baseline stress and depression symptoms a year after the event (Obradovich et al., 2018), indicating that mental health problems may remain long after a crisis.

In order to adequately deal with pandemic-specific and generically uncertain job demands, employees will need resources. To help address this, organizations may use top-down (or may facilitate bottom-up) interventions to take care of employee health and well-being with a

goal to restore balance between job demands and resources. As a starting point, organizations and their leaders should consider providing (a) immediate tangible resources, such as information (e.g., about working from home, prevention of transmission), employee assistance programs (EAPs), or access to counseling, therapy, and training; and (b) psychological resources such as feedback, support, and inspiration through regular contact with their employees using video calls. Research that tracks and identifies which variants of such efforts are most effective will yield benefits beyond the systemic shocks of COVID-19. In addition, future research should determine whether structural efforts to optimize working conditions via job redesign and job crafting can be as effective now as compared to pre-COVID-19 (Oprea et al., 2020).

More immediate than many forms of stress, COVID-19 draws close attention to the problem of presenteeism (i.e., people going to work when ill) (Johns, 2010) which is a considerable risk factor. There is ample evidence that sick people do persist in going to work, especially in parts of the US where paid sick leave is not presently mandated (e.g., Pichler & Ziebarth, 2017) and especially among those who are highly engaged with their work and/or perceived very high job demands (Miraglia & Johns, 2016). Independent of policies regarding presenteeism, Dietz, Zacher, Scheel, Otto, and Rigotti (2020) found that work team members imitate the level of presenteeism exhibited by their supervisors. Compensation policies should also be reviewed in this context to help ensure that there are not incentives for co-workers to pressure each other to attend to work while sick (Kessler, 2017). Notably, for people with jobs that can be done remotely, research should examine how sickness is navigated in the post-COVID-19 workscape (e.g., to see if sick days or snow/weather days are now expected to be WFH days). Further, for employers that do take active steps to mitigate and guard against presenteeism, it will be important to monitor and assess the degree to which employee privacy

rights are maintained or not as organizations assume the right to daily temperature checks, for example.

While it is well known that traumatic events can precipitate societal shifts in addictive behaviors such as alcohol consumption (Vlahov et al., 2002), the COVID-19 pandemic is particularly concerning since massive unemployment and mandatory WFH orders may heighten vulnerabilities and thus trigger or exacerbate alcohol use disorders (i.e., alcohol abuse or dependence) – a diagnosis applicable to nearly 13% of Americans and 20% of Europeans (Grant et al., 2017). Prior research has shown that workforce disengagement can be associated with a decrease in alcohol misuse due to distancing from workplace-based norms to drink (Bamberger & Bacharach, 2014). There is also evidence, though, that proximity to work-based peers and supervisors (which is largely absent when employees WFH) can provide essential stress-attenuating support in times of crisis that can prevent alcohol-based coping (Bacharach, Bamberger & Sonnenstuhl, 1996).

Beyond traditional EAPs, peer assistance programs including union-sponsored (e.g., AFA's member assistance program), joint labor-management-sponsored (e.g., UAW-Ford ESSP), and employee-initiated (e.g., Google's Blue-Dot) programs have shown particular efficacy in times of crisis (Golan, Bacharach & Bamberger, 2010), not only for those actively employed, but for those disengaged from work as well (Bamberger & Bacharach, 2014). Practitioners can also consider internet-based brief interventions incorporating personalized norm-feedback (demonstrating, for example, that the individual's drinking behavior is excessive relative to his/her cohort) and/or textual or video-based insights for addressing the kinds of negative emotional states potentially driving alcohol-based self-medication since both kinds of approaches have also demonstrated efficacy (Brendryen et al., 2017). As face-to-face support

becomes scarce, personalized and adaptive virtual technologies may well offer an important new means to assist workers.

Unemployment and Inequality. As entire industries such as travel, hospitality, sports, and entertainment were shut down by COVID-19, millions of people in the U.S. alone filed new unemployment claims in early 2020. In addition to losing income, we know that individuals who are unemployed may experience a range of stress-related consequences including depression, anxiety, and physical ailments (Wanberg, 2012). Jahoda's (1982) latent deprivation model helps explain the negative effects of unemployment on psychological well-being by acknowledging that employment provides both manifest (e.g., income) and latent (e.g., time structure, social contact, sharing of common goals, status, and activity) benefits. Financial deprivation can be particularly devastating, triggering a spiral of adversity that can affect the entire family (McKee-Ryan & Maitoza, 2018).

Hopes related to COVID-19 unemployment have centered on an economic recovery unfolding fast enough that jobs lost to COVID-19 unemployment will largely be regained but that is far from certain. The broad-based closures associated with COVID-19 have further complicated typical advice for individuals who are unemployed to develop a regular routine of job search (Wanberg, Ali, & Csillag, 2020). Researchers studying unique features of COVID-19 will want to compare how people cope and adapt to the shocks entailed by COVID-19 in both the near-term with respect to the employer that let them go and, in the longer term, where career adaptability (Klehe et al., 2012) – the willingness and interest to explore new options and future work scenarios – might prove to be increasingly valuable.

In addition to the consequences of unemployment for individuals, there are negative spillover effects for those who remain employed. Prior research shows that when firms reduce

overall staffing levels, there tends to be correspondingly lower levels of organizational commitment, job involvement, and greater stress among survivors (Trevor & Nyberg, 2008). Meta-analytic evidence finds that overall reduction in staffing has roughly the same adverse organizational performance as comparable voluntary turnover (e.g., Park & Shaw, 2013). We also know from recent research that broader economic downturns tend to be associated with a shift towards more "zero-sum" mindsets with a downstream consequence that people become increasingly prone to misconstrue others as competitors even when they are not (Sirola & Pitesa 2017). Future research that examines the mass layoffs entailed by COVID-19 should test the extent to which prior research holds up in the face of the wide, broad, and abrupt layoffs.

As a broader cost associated with the pandemic, many analysts expect that inequality will increase in the wake of COVID-19 just as it has in recent shocks such as the 2008 financial crisis (Wisman, 2013). Such inequalities are known from past shocks to provide differential resources and opportunities for individuals to gain employment and promotions while exacerbating inequalities in pay and benefits (Bapuji, Ertug & Shaw, 2020). We can anticipate further that there will continue to be growth in very-short-term jobs given that – even prior to the COVID-19 pandemic – the so-called gig economy (Ashford, Caza & Reid, 2018) was growing at a very high rate (McKinsey & Co, 2016) as a new kind of normal (Petriglieri, Ashford, & Wrzesniewski, 2019).

Given prior work showing that organizational and societal inequalities feed into each other, there are reasons to be concerned that growth in inequality after COVID-19 will contribute to a downward spiral of negative trends in the workplace in the form of decreased work centrality, and increased burnout, absenteeism, deviant behaviors, bullying, and turnover (Bapuji et al., 2020). Further, it is likely that job insecurities post-COVID-19 will motivate greater risk-

taking and presenteeism among low-paid workers that, in turn, may increase public health risks for further spread of the disease. Finally, societies may be confronted with social unrest and political upheaval (e.g, riots, demonstrations) as social and economic inequality increases on the back of COVID-19. Therefore, greater organizational investments to minimize inequality should dampen the negative spiraling that is otherwise likely to unfold.

Moderating Factors

The changes and impacts reviewed in the previous two sections will disparately impact (and be impacted by) employees with certain demographic characteristics, individual differences, and variable organizational norms. While we focus – in the subsections that follow – on moderators for which there exists evidence relevant to COVID-19, there are ample reasons to expect that these interact with additional factors such as a person's socio-economic or their health status (i.e., chronic illnesses).

Demographic Characteristics. Preliminary analyses of COVID-19 indicate that older people are disproportionately at-risk of dying if they are infected thereby warranting substantial attention to ageing workers. Declining birthrates and increasing life expectancy in the past century has led to an aging workforce across the globe (Rudolph, Marcus, & Zacher, 2018). Given the health risks faced by older employees as well as early retirement incentives that we anticipate organizations dealing with budget shortfalls to offer, it is possible that the post-COVID workplace is less diverse with respect to age. On the other hand, to the degree that COVID-related losses in employees' defined contribution retirement plans prompt older workers to delay retirement continue working, it is possible that we will see increased age diversity in the workplace resulting from this crisis (e.g., Van Solinge & Henkens, 2014).

Similar to age, fatality rates for contracting COVID-19 have also varied substantially by race (e.g., within the U.S.) with speculation that the racial differences reflect underlying differences in pre-existing health conditions, lower socioeconomic status, and dense living conditions. Additionally, members of racial and ethnic minority groups are less likely to be able to work remotely and as a result face greater exposure to the virus. In the UK, healthcare professionals from Black, Asian, and Minority Ethnic (BAME) groups represent 20 percent of nurses and midwives and 44 percent of doctors and dentists (Cook, Kursumovic, & Lennane, 2020); however, 70 percent of healthcare professionals who have died from the virus come from these same groups with similar patterns visible in the United States (Cookson & Milne, 2020). Although much is known about bias and discrimination in the workplace, we know less about how to mitigate them. To date, organizational scholars and psychologists have proposed individual-level coping strategies (Smith et al., 2019), interpersonal identity management strategies (Creary, Caza, & Roberts, 2015), and organizational-level interventions such as diversity training (Nkomo & Hoobler, 2014) that can improve racial and ethnic minorities' experiences at work. Missing from the literature is an understanding of whether these strategies are similarly effective under conditions of economic threat when racial and ethnic minorities are particularly vulnerable to layoffs (Elvira & Zatzick, 2002). Not only should scholars who are legally able to collect racial and ethnic data continue to do so during, and beyond this pandemic, organizational and managerial interventions aimed at improving the workplace conditions and experiences of racial and ethnic minorities including their experiences of inclusion (Roberts, Mayo, & Thomas, 2019) and belonging (Good, Rattan, & Dweck, 2012) will be valuable.

As with age as well as race and ethnicity, COVID-19 likely affects gender in a variety of ways. Higher fatality rates for men imply that male workers might need greater physical

protection from the virus, and thus should be targeted for adherence to health and safety regulations. Yet, there are economic and psychological reasons to suspect that women face greater occupational risks. First, women tend to work in positions that are more directly affected by COVID-19 and more easily replaceable (e.g., hospitality, cleaning, and domestic work) (Alon et al., 2020). Second, since women tend to have higher empathy (Bloise & Johnson, 2007; Eisenberg & Lennon, 1983), women tend to experience more distress from stressful life events, particularly the ones affecting others (Kessler & McLeod, 1984). Globally, several female leaders (e.g., Angela Merkel, Tsai Ing-wen) have tackled COVID-19 effectively. Whereas this contrasts with prior research indicating that people prefer a masculine leader in times of crisis (e.g., Van Vugt et al., 2008), a set of feminine values and traits can also be effective in crisis management, including: a communal orientation in moral decision-making (Tinghög et al., 2016); higher sensitivity to risk (Eckel & Grossman, 2008), particularly about health issues (Flynn, Slovic, & Mertz, 1994); higher conscientiousness (Schmitt, Realo, Voracek, & Allik, 2008); and, more attentive communication styles (Campbell, 2013). Combining these insights, it is plausible that a feminine style of leadership might become recognized as optimal for dealing with crises in the future.

Individual family status (e.g., living alone; with others; with young children) appears likely to disparately affect how COVID-19 impacts individuals' life and work. For example, research has shown that, in heterosexual couples, women typically do the lion's share of household work, and this can lead them to opt-out of careers (Stone, 2008). Given that partners are known to play a key role in supporting (or undermining) each other's careers and developing professional identities (Petriglieri & Obodaru, 2019), it will also be key to understand how couples manage the emotional labor of dealing with anxiety provoked by the pandemic. Among

interventions specific to families that researchers will want to want to understand more closely are the conditions and ways in which revisiting psychological contracts among couples – perhaps especially among couples with (young) children – is beneficial (Petriglieri, 2019).

Individual Differences. The Big Five personality traits predict many work attitudes and behaviors, including those relevant to COVID-19, such as coping (Connor-Smith & Flachsbart, 2007), work-life balance (Michel et al., 2011), and subjective well-being (Anglim et al., 2020). Second-order quantitative reviews of 90+ meta-analyses show that Extraversion and Conscientiousness play particularly important roles in successful adjustment. Extraversion contributes to adjustment by promoting more frequent experiences of higher levels of positive emotion as well as a richer repertoire of interpersonal skill (Wilmot et al., 2019) whereas Conscientiousness contributes to adjustment by fostering commitment and perseverance toward more predictable, non-immediate work goals (Wilmot & Ones, 2019).

In light of this prior research, there are reasons to expect that both traits play key but distinct roles in workplace adjustments to the COVID-19 pandemic. For example, the need for distancing among people may heighten tendencies toward Introversion, which, in turn, have been associated with diminished positive emotions (Margolis & Lyubomirsky, 2019). Furthermore, while Conscientiousness offers potent workplace benefits, we know that unpredictability increases job complexity, which, in turn, decreases conscientiousness' beneficial effects (Wilmot & Ones, 2019). Accordingly, organizational interventions that facilitate social engagement in spite of physical distancing and bring role clarity as well as specific goals may offer much-needed predictability in an uncertain time.

Beyond the Big Five traits, other individual differences may also matter. For example, regarding WFH, Rothbard et al. (2005) report that "segmentors" tend to enjoy work and perform

better when they have a clear boundary between work and non-work, whereas "integrators" tend to flourish when toggling between different activities across these boundaries. This distinction is useful because each may benefit from different adaptations. Segmentors, particularly those who live with others, may benefit from strategies that enable them to tolerate non-work interruptions during work hours, whereas integrators may benefit from some segmentation in time and space.

Organizational Norms. While cultural variation around the globe can be classified on numerous dimensions, the dimension of cultural tightness-looseness (TL), which is comparable to classifying cultures as relatively collectivist or individualist (Hofstede, 1984), appears most relevant for making sense of COVID-19 since it explains how human groups develop strong norms and tighter organizational cultures in reaction to life threatening-experiences (Harrington & Gelfand, 2014). More specifically, prior research suggests that cultural tightening – with advantages that include greater social order, efficiency, and directive leadership – becomes more adaptive during a crisis, but is perhaps more maladaptive as recovery becomes timely and looseness and its associated creativity are needed. Historically, nations with more infectious disease threats are indeed culturally tighter and, as a result, less innovative in science and technology (Gelfand, 2019).

In anticipation of eventual recoveries from the COVID-19 shutdowns, organizations will need to find the right balance between an overly tight or loose culture, known as tight-loose ambidexterity (Gelfand, 2019). Accordingly, as many workplaces tighten in response to their shaky economic standing, successful organizations will benefit from having flexible tightness – rules which bind employees together to prevent social isolation and loneliness, accompanied by the right dose of looseness, which affords employees latitude and autonomy where possible. It is clear that as the effective tightness or looseness of a given organization's culture changes as it

deals with COVID-19, there will be associated changes in the ways that employees navigate other dimensions that we have examined in previous sections. For example, in culturally tight organizations (e.g., hospitals, airlines), team creativity and innovation may be fostered by allowing teams to interact virtually, whereas culturally looser organizations (e.g., universities) might profit from a greater concern with health and safety regulations, as a result of COVID-19.

Among other dimensions of cultural difference that are valuable to consider in relation to COVID-19, it is notable that just as research shows that infectious diseases can help cultivate political conservatism and xenophobia (Ji et al., 2019), it is logical to anticipate that sociocultural differences (e.g., in collectivism) help explain how people and organizations *responded to* COVID-19. While analysis of these kinds of cultural difference are outside of our scope, future research should consider whether and how more conservative employees and organizations have varied in their responses to COVID-19 when compared with more liberal others.

Discussion and Conclusion

For this project, we organized ourselves as a large and diverse virtual team of researchers to make sense of COVID-19's for questions of relevance to work and organizational psychology. As is known from prior research on teamwork among scientists (Kniffin & Hanks, 2018), the benefits of this approach – since many hands make light work and many heads are better than a few – are obvious, especially as we are dealing with an urgent phenomenon, COVID-19, of seismic proportions. Nevertheless, it is also certain that our overview is limited and we may have missed some trends or developments that later turn out to be significant. Among the many current unknowns, we do not yet know how badly the global economy will be affected and how quickly it will recover. We also do not yet know if and when there will be a vaccine or effective medicine available nor how widely and quickly it will be distributed.

Notwithstanding the unknowns, it is obvious that COVID-19 will be recognized for changing the way we work in fundamental ways (see Table 1 for an overview of the implications, issues, and insights we have considered in this article). For example, COVID-19 abruptly accelerated the speed of changes associated with working outside of co-located offices. Virtual work practices are likely to spread as organizations realize the cost-savings from structuring labor with fewer full-time employees and more contractors connected technologically (Spreitzer, Cameron & Garrett, 2017) – and perhaps with less office space in light of the health risks known to be associated with conventional open-plan offices (Pejtersen et al., 2011). The challenges for individuals working in this manner are clear: more of us will need to learn to work in ways far different than how people did in previous generations. In this respect, COVID-19 makes clear how vulnerable we are as employees and employers. As many businesses around the world will be restructured or disappear due to the pandemic, workers will be retrained or laid-off and the economic, social-psychological, and health costs of these actions are likely to be immense. Indeed, the impacts of the pandemic will affect some groups of workers more strongly than others, for example, based on their age, race and ethnicity, gender, or personality.

An understanding of how these abruptly emergent changes unfold is important for practitioners who are charting paths forward to address (e.g., with new interventions) the needs of vulnerable categories of employees. For instance, workers living alone may have very different virtual working needs and routines than employees living with family members. Also, more authoritarian or bossy leaders may face different challenges in motivating their workers in virtual environments than more participative and empathic team leaders, and thus have different training and development needs. Finally, in dealing with remote working populations, HR professionals must develop new performance management and appraisal systems while

occupational health staff should be trained to recognize mental health issues in remote working populations – and be able to offer online advice and therapy.

There are also many challenges for research. Our preview of questions that seem likely to become important should offer generalizability beyond the COVID-19 pandemic given that "extreme events" often provide windows into identifying and understanding dynamics that are important but not necessarily visible during normal conditions. We do not yet know what the long-term impact of social isolation and physical distancing protocols will have for employees. How will it affect job satisfaction and productivity? Research has focused almost exclusively on people who opted into WFH by choice, but mandatory and mass WFH is quite a different situation.

To consider the long-term effects, organizational researchers should perhaps also delve deeper into our history to learn about how epidemics and pandemics have been handled in the past. As Sir Winston Churchill once said: "The longer you can look back, the further you can look forward." There are some parallels between the current crisis and previous threats such as WWII, the 9/11/2001 attacks, and the 2008 financial crisis. Yet COVID-19 is also unique since it is primarily a global health threat and thus requires a different set of adaptive responses (e.g., physical distancing instead of coming together). We therefore need theory development on how different kinds of global threats and crises shape workplaces in varied ways. We do know that infectious diseases have been a common aspect of human evolution and have shaped our psychology, behavior, and culture in surprising but predictable ways. As we now live and work in globally interdependent communities, infectious disease threats such as COVID-19 need to be recognized as part of the workscape. To continue to reap the benefits from global cooperation, we must find smarter and safer ways of working together.

Table 1. Summary of Implications, Issues for Future Research, and Insights for Action regarding COVID-19 and the Workplace

Domain of Work	Implications	Issues for Future Research	Insight-Driven Actions
Emergent Changes in Work Practices			
Work From Home (WFH)	The massive, abrupt, and mandatory (for many employees) switch to work from home (WFH) has required employees to adapt while employers have become more open to adopting the practice post-pandemic.	How will WFH policies affect employee attitudes and behaviors to their employers as well as their co-workers? How will employee attitudes to privacy and monitoring shift for work that is done outside of an office setting?	Employees should create rituals that allow tranisitions (in the absence of commuting) in order to manage the boundaries between work and home. Organizations should adopt and encourage routines that enhance trust while being attentive to the costs of increased monitoring.
Virtual Teamwork	Employees who are forced to work virtually for team projects have needed to navigate the indirect and direct conflicts that can result in performance losses.	How will emotion expression and communication in teams with either low or high virtuality affect outcomes? What factors will lead to helping and prosocial behaviors in teams with either low or high virtuality – and how will these impact outcomes?	Team members need to pay attention to the structure and nature of communication flows in order to manage them effectively. Organizations should provide opportunities for non-task interactions among employees to allow emotional connections and bonding to continue among team members.
Virtual Leadership and Management	Leaders are tested when presented with systemic shocks and must continue to project vision. Managers are faced with new challenges to supervise and cultivate the development of their	How will leaders adapt their styles in response to shocks such as the current pandemic? How can organizations create superior leader communication to	Leaders need to balance optimism and realism in their communications with employees while demonstrating skills such as charisma.

	subordinates from much greater distance than usual.	allow feedback and mentoring to happen effectively?	Organizations need to (continue to) invest in the development of current and potential leaders to build new skills to function effectively in new work settings.
Emergent Changes for Workers			
Social Distancing and Loneliness	WFH – and the re-organization of workspaces to ensure distance among people – is likely to hamper social connections and, in turn, negatively affect employee mental and physical health.	How can organizations foster high-quality social interactions among co-workers when WFH or working in de-densified workplaces? What innovations are most effective for mitigating an increase in loneliness?	HR communications should acknowledge the risk of workplace loneliness and the value of social connections as part of broader employee wellness programming. Organizations should identify and implement policies and interventions to support social connections among employees.
Health and Wellbeing	Increased job demands and reduced resources are likely to lead to greater stress among employees. Among people serving "essential" jobs, there is likely to be an increase in people going to work when ill. Increase in substance misuse is possible during the pandemic and any	Does rumination about a major crisis like COVID-19 exacerbate the stress and preclude effective use of the available job resources? How can employer pay and benefit plans best be structured to discourage people going to work when ill? What is the efficacy of internet-based, brief interventions in preventing the onset and/or exacerbation of alcohol misuse among employees?	Leaders should be trained to facilitate job crafting so that employees can better cope with new and uncertain job demands. Employers should not incentivize employees to work through illness. Leaders should model appropriate behaviour and not attend work when ill. With appropriate consent and attention to privacy issues, organizations should invest in machine learning and wearable

	subsequent economic downturn.	What is the impact of the relaxation of COVID restrictions/return to work on alcohol misuse and addictions more generally?	technologies designed to virtually and rapidly identify the onset or exacerbation of risky behaviors such as alcohol misuse.
Unemployment and Inequality	The costs of unemployment are both economic and latent due to the loss of social structure, status, and social ties. There are also direct and indirect costs experienced by those who remain working in organizations that have laid off workers. Increases in inequality expected from the shock of COVID-19 is likely to lead to burnout, deviant behaviors, and withdrawals.	What is the impact of unemployment beyond mental health outcomes and how can the unemployed recover? What HR practices, policies, programs, and/or forms of support can alleviate the negative consequences of mass layoffs on those who remain employed? How can organizations best minimize the individual and organizational costs of broader social inequality?	Job searching requires resilience and persistence and job seekers should seek support and information from others. Job seekers should also prepare for a longer job search than would be the case with lower unemployment rates. Organizations need to reduce inequalities, by reducing selection biases in favour of the demographically privileged and taking action to prevent further negative spiraling of pay and benefits.
Moderating Factors			
Demographic Characteristics	Older employees face disparate health and economic risks related to COVID-19 with impacts on retirement planning. Members of racial and ethnic minority groups face	How will organizations respond to age-specific concerns involving the risks associated with COVID-19? How do organizationas foster inclusion and a sense of belonging among racial and ethnic minorities	Organizations should intervene to simultaneously (a) optimize employee human capital across the lifespan and (b) strengthen internal labor markets (e.g., through cross-age mentoring).

	disparate health and economics risks related to COVID-19. Men are more likely to face direct health threats of COVID-19. Women are more likely to be affected by the adverse economic and social costs.	when the economy is uncertain and the threat of job loss is high? What is the value of feminine leadership styles in extreme crisis management, despite the documented preference for masculine leaders under crisis?	Employers need to create an environment where all employees, including racial and ethnic minorities, realize how they can contribute to the organization's goals. Greater value should be placed on alternatives to more masculine leadership styles that seem to be effective in relation to COVID-19.
Individual Differences	Differential impact of social distancing and work from home for those higher (vs. lower) on Extraversion and Conscientiousness. Other individual differences may also matter, such as segmentors and integrators struggling with WFH.	How do personality traits – in particular, Extraversion and Conscientiousness – function in response to the "strong situation" represented by COVID-19? How will the pandemic diminish – or even reverse – the advantageous work relations typically associated with Extraversion and Conscientiousness?	Organizations should reduce unpredictability (i.e., provide clarity to job roles and work goals) to restore the benefits of Conscientiousness. "Segmentors" will need to tolerate non-work interruptions, whereas"Integrators" may benefit fromsegmenting time and space.
Organizational Norms	Norms will tend to be stronger and less flexible, leading to a greater tightness of organizational cultures, when the threat of infection is high. As the perceived threat of infection lowers, there will be a corresponding loosening of norms.	How do organizations effectively tighten and loosen (or "close" and "open") in response to systemic shocks?	Leaders need to understand how to be ambidextrous regarding social norms, knowing when to deploy tightness and looseness as needed since the former offers protection and the latter facilitates creativity and innovation.

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