COVID-19 and its Implications for Research on Work Ability

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ABSTRACT
Research into work ability is increasing in the aging workforce literature. We argue that the COVID-19 pandemic has uncovered a number of possible gaps in our understanding of the work ability concept itself, its antecedents, and outcomes. We offer future research directions to further examine the theoretical underpinnings of work ability, moderators that may enhance its effects, and ways to broaden work ability conceptually to better capture the experiences of older workers.

Work ability, or a person’s ability to meet the physical and mental challenges of their work (see Appendix), has become an important concept for understanding worker well-being and behavior. Work ability has also taken on special significance in research on older workers as an explanatory variable because it generally declines with age and has consistent relationships with retirement intentions and behavior. Recent large-scale empirical studies (e.g., McGonagle, Fisher, Barnes-Farrell, & Grosch, 2015), reviews (Cadiz, Brady, G., Rineer, & Truxillo, 2019a), and meta-analyses (Brady et al., 2020) illustrate work ability’s effects on job attitudes, well-being, and behavior. This literature also demonstrates the personal (e.g., health) and contextual (e.g., social support) antecedents of work ability. These studies show that the work ability concept is a useful explanatory lens for understanding the relationship between workers and their jobs, especially later in life.

As documented in the media, the COVID-19 pandemic provides particular challenges for a number of workers, such as for those with young children and those in “front-line” or “essential” positions such as medical personnel or those involved in food production. To the point of this commentary, it is also clear that the virus presents serious problems for older workers, who often have “underlying conditions” and have far greater mortality risk than their younger counterparts (Rudolph & Zacher, 2020). In this commentary, we argue that the pandemic challenges our field to think more broadly about the accepted antecedents and outcomes of work ability, and it may augment the theoretical model that has underpinned most of the work ability research in the organizational sciences.

THE ROLE OF DEMANDS AND RESOURCES IN WORK ABILITY

The work ability concept originated in the occupational medicine literature (Ilmarinen et al., 1991) in which worker health was seen as a key component of and antecedent to work ability. More recently, organizational researchers have identified a range of work-focused antecedents of work ability in addition to the health-focused antecedents. These antecedents include job demands, which serve as risk factors for poor work ability, and job resources, which can promote higher levels of work ability (e.g., Brady et al., 2020; McGonagle et al., 2015; Rudolph & McGonagle, 2019). Thus, much of the organizational research on work ability has used the Job Demands-Resources (JDR) model (e.g., Bakker &Demerouti, 2017) to investigate its antecedents and outcomes. Identifying the antecedents of work ability has been critical because these antecedents suggest leverage points for supporting well-being and enabling people to continue working, particularly later in life (Cadiz, Brady, & Truxillo, 2020). As such, the work ability concept has enjoyed greater research attention with the “graying” of the workforce (e.g., Rudolph & Zacher, 2020).

In terms of specific antecedents, research on work ability (e.g., Brady et al., 2020) has shown that a number of job demands (e.g., quantitative, mental/emotional, and physical demands) can hinder work ability and that a number of job resources (e.g., coworker support, control, core self-evaluations, good health) can support it. In turn, work ability affects work outcomes such as job satisfaction, performance, motivation, strain, and exit intentions and behaviors (e.g., retirement)—all indicators of worker success. What is generally missing
from research on work ability is a consideration of the much broader societal context—distal but powerful factors that can affect it, and more specific to this review, societal factors such as COVID-19 that could threaten one’s ability to do their job and do it safely.

EFFECTS OF COVID-19 ON WORK ABILITY AND OLDER WORKERS
The effects of COVID-19 on the work ability of older workers are likely to be profound. In addition to its potential direct effects, we highlight the ways in which COVID-19 may amplify or otherwise change relationships between work ability and its antecedents and outcomes, especially for older workers. Throughout our discussion, we focus primarily on people who are currently older and thus more susceptible to the virus; we conceptualize most of these effects as transient, that is, lasting for only as long as the virus continues to be a threat. However, there may be permanent period effects (Rudolph & Zacher, 2020) on the work ability of all people who have experienced the pandemic, both for those who are currently older and those who will later age into greater vulnerability.

COVID-19 and Antecedents of Work Ability
First, COVID-19 has fundamentally changed the way people are currently working, and it is likely to have lasting consequences on the antecedents of work ability. For example, educators at all levels have needed to rapidly adjust to remote/online education, and consequently, a new antecedent of the work ability of educators is likely to be technological ability. Similarly, working in customer-facing occupations or working with non-compliant (e.g., non-mask-wearing) customers are likely to be new antecedents of being able to work effectively and maintain high work ability.

Second, the COVID-19 pandemic may amplify the effects of known antecedents of work ability. The most salient of these is age. Increasing age tends to have a negative impact on work ability. In the context of the COVID-19 crisis, this negative impact of age on work ability should be exacerbated, that is, older workers will be concerned about their ability to work safely, and because of that, to do their jobs. This will especially be true for older workers who cannot work remotely; in fact, this ability to work from home now becomes an important antecedent of work ability for workers of all ages. And given the known relationship between health and work ability, COVID-19 is likely to have stronger negative effects on work ability for older workers and those with underlying health issues—a pandemic × health × age interaction. By the same token, COVID-19 concerns are likely to make employees’ age more salient to them and also to their coworkers, leading to negative age stereotypes (of coworkers) and meta-stereotypes (of older workers themselves) that might further negatively impact work ability (Cadin, Brady, Truxillo, & Zaniboni, 2019b; Finkelstein, Voyles, Thomas, & Zacher, 2020).

On the other hand, given what we know about the positive effects of workplace social support on work ability, coworker and supervisor support may attenuate the negative effects of the virus for some older workers. For example, we know that one of the most important factors in workplace safety is a supervisor and team with whom an employee can openly discuss and address workplace safety concerns (Zohar, 2002); these supportive work relationships should also help address workers’ safety concerns related to the virus. Similarly, a greater sense of control at work, especially over the physical environment and work scheduling, should improve older workers’ work ability. Within the context of COVID-19, having the freedom and flexibility to work in roles that would allow for more social distancing (e.g., stocking vs. cashier) and working “off-peak” shifts could reduce the risks associated with working and commuting on public transit, and therefore help to maintain work ability.

Policy-level mandates (e.g., federal, state, local), the number of active cases in one’s region, as well as organization-level responses to COVID-19 are also likely to play important roles in the extent to which older workers can maintain their work ability during the pandemic. That is, across different countries and U.S. states, responses to COVID-19 have varied greatly from stringent lockdowns to relatively few restrictions. In addition, safety behaviors have varied significantly from place to place based on local norms. Similarly, organizations have differed in their responses to COVID-19, with some employers requiring more stringent safety practices of employees and customers than mandated by law. These differences in responses to COVID-19 are likely to play an important role in the effects of COVID-19 on work ability. That is, stricter safety protocols may serve as a buffer that reduces the negative effect of COVID-19 on work ability. In countries, organizations, and areas with more strict safety policies, individuals may feel safer and be able to maintain work ability to a greater extent compared to localities in which few if any policies were enacted or followed by the general public. On the other hand, in areas that are COVID-19 “hot spots,” employees may become increasingly concerned with their ability to do their job safely, thereby decreasing their work ability. These government mandates and workplace policies may affect the work ability of all workers, but this may be especially the case for older workers who are sensitive to their own vulnerability to the virus.

Additionally, at least in the United States, individuals’ responses to the COVID-19 pandemic have differed significantly, with strong responses from those in favor of, and opposed to the implementation of social distancing, mask wearing, and other safety protocols. These individual differences—including risk tolerance, individual political beliefs, and COVID-19 concerns—likely play a strong role in the extent to which COVID-19 influences one’s work ability. That is, if one believes the virus will not affect them personally, is not that lethal, or that the protective mandates are overzealous, it seems likely that COVID-19 would not have as strong a negative effect on their work ability—provided, of course, that one does not actually contract the virus and experience symptoms. On the other hand, for those with the highest concerns about the virus, be it for themselves or their family and friends, COVID-19 would negatively affect their work ability. Paradoxically, those who are most concerned with contracting the virus may also implement stronger safety protocols for themselves, thereby limiting their actual risk of contracting the virus, compared to an individual who is not concerned with contracting the virus, and who thus engages in fewer safety behaviors.

COVID-19 and the Outcomes of Work Ability
We see COVID-19 as intensifying the effects of work ability on its outcomes, such as well-being and retirement. In particular, as concerns about safety, mortality (either for oneself or for a vulnerable person in the household), job loss, financial security, and day-to-day responsibilities (e.g., interruptions in food distribution, lack of childcare or eldercare) are heightened, experiencing poor work ability is more
likely affect retirement decisions. For example, a recent analysis by the Kaiser Family Foundation (Claxton et al., 2020) found that nearly one in four teachers are at high risk to become seriously ill if they contracted the disease in part because nearly 20% of teachers are 50 years or older (Nania, 2020). In this example, because there is increasing pressure to re-open schools, a large number of older teachers or those with chronic health conditions must weigh their health with continuing in their profession. Because work ability affects whether older people remain in the workforce, COVID-19 is likely to lead to increased turnover, retirement, and unemployment among many older workers due to its negative impact on work ability. This may occur for at least two reasons. First, older workers that are laid off but near retirement age may face particular difficulty finding new employment. Second, COVID-19 could act as a push factor towards retirement, particularly for those that are financially able to retire.

**IMPLICATIONS FOR RESEARCH**

This commentary raises a number of questions for future research. Perhaps most important is the need to better understand and measure the work ability construct—an issue raised in prior reviews (Brady et al., 2020; Cadiz, Brady, Rineer, & Truxillo, 2019a). Most conceptualizations of work ability focus on whether a person can continue to meet the physical and psychological demands of the job. Other conceptualizations are more focused on health. This pandemic highlights that work ability may be a broader construct in the minds of many workers, such as working safely. This issue is likely to be a factor for older workers, but also for those with underlying conditions, those having to work on the front lines, and those who live with someone deemed to be high-risk (e.g., young adults living with their parents). This is an issue that should be considered for other types of illnesses as well: For example, the 1918 flu pandemic had greater effects on younger people in terms of mortality. Clearly, different pathogens could be more salient to workers of different ages.

Second, the pandemic also suggests factors beyond those generally identified in the JDR model that might be considered demands. In this case, serious health threats (not within the individual) and safety threats in the broader environment but especially in the workplace should be added as demands that could affect employees. That is, beyond just the effects on work ability, COVID-19 suggests that environmental pathogens and safety more generally might be added to the list of JDR demands. Moreover, this pandemic also highlights the importance of understanding the societal and organizational influences on work ability. This is consistent with our previous work (Cadiz et al., 2019a) in which we called for more research investigating the multi-level influence of society, organizations, and groups on work ability. Specifically, different organizational and societal policy contexts could influence one’s perception of meeting one’s work demands safely. For example, in heavily regulated and safety-sensitive industries, implementing additional safety protocols due to COVID-19 may be viewed as relatively minor changes to one’s work and, therefore, may have little impact on employee work ability. In contrast, in industries that typically have few required safety protocols, introducing new safety protocols may have a more dramatic impact on an employee’s work ability.

Third, empirical research is needed to better understand how a number of individual differences, such as risk tolerance and COVID-19 concerns might affect work ability, either directly or by interacting with factors such as age, health, or perceived risk. We also anticipate that health-focused measures of work ability may be particularly affected, since these measures essentially assess an employee’s underlying health conditions. This also means that the concept of COVID-19 concerns and its measurement needs development.

Finally, we offer work ability as a useful lens for examining how COVID-19 and COVID-19 concerns affect decisions to retire among older workers. Research is also needed to understand how COVID-19 concerns, economic concerns, and work ability may interact to negatively impact older workers’ well-being and presenteeism. And as workers are asked to reintegrate into the workforce, empirical research is needed to understand how COVID-19 influences work ability in the return-to-work phase. For example, if a vaccine were developed and introduced, would older workers who have been through the pandemic continue to have residual, negative effects on their work ability that would discourage them from returning to work? This is likely a function of the individual differences described above (e.g., risk tolerance), the employee’s type of work (e.g., public-facing), and the extent to which shifts in the way work is conducted remain permanent (e.g., work from home, online teaching). The research should also examine whether work ability is permanently affected by “shocks” such as a life-threatening pandemic even after the threat is passed. For example, effects of the pandemic on mortality salience could permanently lower work ability and workforce re-entry among older employees. In addition, the lingering effects of age-related discriminatory practices against older workers during the pandemic (i.e., higher rates of layoffs and increased lengths of unemployment) could also have permanent effects on work ability. And there might even be long-lasting effects even on younger workers who lived through this period and age in their jobs over subsequent decades.

**CONCLUSION**

Work ability is gaining increased attention in the organizational literature to explain worker outcomes, especially for older workers. We believe it has a key role to play in better understanding how COVID-19 and similar pathogens may affect not only older workers, but also those with other vulnerabilities. Given the increasingly global economy, the risk and likelihood of pandemics will likely remain high. Our hope is that work ability can assist in societal and organizational policy decisions about how to cope with COVID-19 and other pathogens.

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Appendix
The concept of a person’s own perceptions of work ability has largely dominated the occupational health psychology literature in recent years. However, older conceptualizations focus on both perceptions and actual medical diagnoses. Note that measures based on these two conceptualizations tend to have similar antecedents and outcomes (Brady et al., 2020).