



Occupational Health Science in the Time of COVID-19: Now more than Ever

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Abstract

Workers bear a heavy share of the burden of how countries contend with COVID-19; they face numerous serious threats to their occupational health ranging from those associated with direct exposure to the virus to those reflecting the conflicts between work and family demands. Ten experts were invited to comment on occupational health issues unique to their areas of expertise. The topics include work-family issues, occupational health issues faced by emergency medical personnel, the transition to telework, discrimination against Asian-Americans, work stressors, presenteeism, the need for supportive supervision, safety concerns, economic stressors, and reminders of death at work. Their comments describe the nature of the occupational health concerns created by COVID-19 and discuss both unanswered research questions and recommendations to help organizations reduce the impacts of COVID-19 on workers.

Keywords Occupational health · COVID-19 · Work stress · Pandemic · Coronavirus · Workplace safety

Certain events define eras of our lives. The Pearl Harbor attack of 1941 brought the US fully into World War II and changed the course of world history. The terrorist attacks of 2001 radically redefined US foreign policy and international relations. The global recession of 2007–2008 reshaped the worldwide economic landscape. COVID-19 has made 2020 another of these defining times. Gaps in testing, extreme variability in symptoms, the lack of a vaccine, differences across countries in reporting practices, and variability in governmental policy responses make it difficult to know exactly how serious and long-lasting COVID-19 will be, but as of this writing (May 1, 2020), with nearly 3 million diagnosed cases and nearly 200,000 fatalities along with the massive

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economic impacts of shutdowns and social distancing, it is clear that COVID-19 will cause wide-ranging consequences for nearly every aspect of contemporary life.

Are there any workers whose lives have not been affected in some way by COVID-19? Perhaps not. Workers bear the physical and socioemotional burden of how countries respond to COVID-19. Millions have lost their jobs. Medical personnel and other first responders face the awful consequences of COVID-19 every day. Jobs previously viewed as lower status are, at least for the moment, recognized to be essential (e.g., grocery workers) as these workers face elevated threats to their health as well as concerns about transmitting the virus to family members. Millions of others have had to adjust to working from home and learning to homeschool their children while they work. Moreover, further occupational health threats are likely as countries attempt to reopen their economies.

With these concerns in mind, the goal of this commentary is to highlight some of the most important directions for Occupational Health research as well as some practical recommendations for organizations to better manage their workers. We brought together 10 experts on different occupational health topics and asked them to comment on issues related to their areas of research expertise. The comments have been lightly edited, but we attempted to preserve the unique voice of each author. Some are more focused on strategies for better occupational health management, others focus on important unanswered questions for future research. All of them are firmly grounded in guidance provided by occupational health science.

The Work-Family Interface

Tammy D. Allen, University of South Florida

Due to the COVID-19 pandemic work and nonwork roles have become intertwined like never before. Pre-schools and childcare facilities have closed and children of all ages are home from school. Millions of workers have rapidly transitioned into work from home arrangements. Others are still going to work and working long hours to produce and distribute essential food, goods, and services while families are self-isolating at home. The current context has put work and family on a collision course as many individuals have become acutely vulnerable to experiences of work-family conflict. Work-family conflict is commonly defined as “a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect” (p.77) (Greenhaus and Beutell 1985). Understanding work-family conflict is important in that it has been associated with a wide variety of outcomes such as job, family, and life satisfaction (e.g., Amstad et al. 2011). There are two areas of work-family research that are particularly relevant and important to consider in the current COVID-19 context.

Increased Role Demands

Role demands are a robust predictor of work-family conflict (Allen et al. 2019). Because many workers are currently experiencing an increase in work and family role demands, it is likely that they are also experiencing an increase in work-family conflict. Family demands have increased as children are at home 24/7 and need care and attention. Moreover, parents of school age children are supervising homework and lesson plans.

With restaurants closed and everyone at home, home chores such as meal preparation and cleaning have likely become a greater burden. Likewise, work role demands have increased for many workers. Some workers are navigating new technologies that are part of remote work. Workers in occupations such as healthcare, grocery, and manufacturing may be experiencing extra role demands such as working long hours and new fears about exposure to the virus. The combination of increased family and work demands makes for a perfect storm that can drastically escalate work-family conflict.

There are reasons to believe that the increased family demands are likely to be primarily shouldered by women. An extensive body of research has consistently found that even among dual-career couples, women provide more domestic work and childcare than do men (Shockley and Shen 2016). Under normal conditions, research shows that mothers are more likely than fathers to take care of children who are sick (Ranji and Salganicoff 2014). In addition, women are more likely to manage the emotional health of the family than are men (Ciciolla and Luthar 2019). These factors may result in particularly acute work-family conflict experience for women.

Role Boundary Management

Boundary management concerns the ways by which individuals create, maintain, or change boundaries in order to deal with the world around them (Ashforth et al. 2000). The differentiation of physical and temporal spaces traditionally serves as a tool to define different roles. For example, the employee role is commonly enacted at an organizational location during specified hours (e.g., Monday through Friday during the day) while the family role is commonly enacted while physically located in the home during the evening and weekends (Allen et al. 2014). There are differences with regard to the extent individuals prefer to integrate versus segment their work and family roles. Integrators prefer to blend work and family roles, while segmenters prefer to keep work and family roles separate (Ashforth et al. 2000). Under normal circumstances, individual can enact strategies that enable them to control boundaries in a way that best fits their personal preferences (Kossek 2016).

Due to the pandemic, millions of workers are currently working from their kitchen table, living room sofa, or other makeshift home office spaces. Home has become the office and in some cases the school room as well. This blurring of work and nonwork boundaries sets the stage for conflicting work and family demands. Moreover, it makes it next to impossible for individuals to enact their preferred boundary management strategies, particularly for those who prefer segmentation. Even those who prefer integration may find that the complete overlap is difficult (Shockley and Clark 2020). In addition to increased work-family conflict, the lack of ability to control one's boundaries may make it more difficult to psychologically connect and disconnect from work.

What Can Be Learned

The work and family challenges brought on by the pandemic are unprecedented and severe. Existing interventions such as family-supportive supervisor training (Hammer et al. 2011) as well as individual practices such as mindfulness (Kiburz, Allen, & French, 2017) that have demonstrated effectiveness in previous research could be useful under the current context as a test of utility under extreme circumstances. In addition, research that captures individual experiences could be used to inform key questions such as how

domestic partners negotiate work and family responsibilities during a time of crisis. An examination of boundary management strategies that worked could also yield useful information. Finally, the current context offers a unique opportunity to study specific episodes of work-family conflict and their accumulation along with general perceived levels of work-family conflict (French and Allen 2019). Such research could provide new insights into how individuals experience work-family conflict.

Telework Is Now Conventional Work – Time to Eliminate Physical Presence Privilege

Larissa K. Barber, San Diego State University

Words matter. In occupational health psychology, we navigate terminology and concept definitions on a daily basis to understand workplace issues. Naturally, this meant that I became fixated on the public health term *social distancing* during the pandemic. Social distancing is a catchy term with a clear message – stay away and isolate yourself.

Others have suggested *distant socializing* as an alternative, which emphasizes staying technologically connected during these tough times instead of isolating ourselves when physically distant (Winck 2020). This insight struck me as relevant to telework; conflating the physical with the social at work is also a particularly pernicious problem. When we think of positive social interactions, ranging from formal work meetings to casual discussions with coworkers, we envision the shared physical workspace. Physical separation is easily confused with social separation, which has led to organizations equating telework with work distancing rather than distant working. One is isolating. One is technologically enhanced work.

Telework definitions vary, but their common theme is that telework is conducted (a) away from the primary workplace, and (b) relies on information and communication technologies for keeping workers connected. The “away” component is telling – away from the “conventional company workplace,” the “ordinary workplace,” or in a “satellite office” (for a review, see Allen et al. 2015). Did you catch that message? Telework is unconventional, rare, and not central to our way of working.

The current pandemic may forever change our physical presence privilege. What happens now that the primary workplace is “away” from a physical location for most workers? Like social distancing, the term telework assumes the primary workplace is physical. Telework is retrofitted into a world where the physical is both conventional and privileged. This retrofit (or should I say misfit?) is exemplified by the *accommodation model* approach to telework (Perlow and Kelly 2014), which views individual employees as the intervention point. Telework is a tool to address “messy” non-work demands. Telework is the mallet in a game of whack-a-mole – a temporary fix to knock down work-life conflict issues that seemingly pop up at random. When a pandemic hits, the moles are legion and the conclusion is undeniable: the game board design is the problem. Similarly, the *work design model* approach to telework would propose there are issues with the work itself (Correll et al. 2014; Perlow and Kelly 2014). Individuals benefit from telework because it addresses barriers to effective work—in this case, constraints of the physical workspace.

Physical presence privilege may help explain why the work design model to telework has thus far struggled to be as appealing as the accommodation model. In-

person meetings are preferred over web-conferencing, driving in over logging in. Teleworkers are not the usual or ideal worker (Williams et al. 2013), and this *flexibility stigma* has led to loneliness, loss of career advancement opportunities, and paradoxically lower work-life balance (Cech and Blair-Loy 2014; Correll et al. 2014). Meanwhile, as teleworkers put in more hours online to compensate for a lack of physical presence (Lautsch et al. 2009), their office counterparts use technology to waste work time (Lim 2002). Physicality is also conflated with work attention and productivity.

Now is the time to eliminate physical presence privilege in organizational policies and practices on telework. For organizational leaders who did not see electronic performance monitoring as a way to manage office worker attention, why the urge to micromanage them online? Instead of risking well-being drawbacks of performance-monitoring (Greer and Payne 2014), organizations can promote sustainable motivation and well-being through better self and team leadership practices. Self-leadership is effective for teleworkers, which includes behaviors such as setting their own goals and rewarding themselves for a job well done (Müller and Niessen 2019). Team leadership can also increase motivation and feelings of control through ownership of decisions. Moreover, team leadership improves team performance regardless of how much work is done virtually (Hoch and Kozlowski 2014).

Removing physical presence privilege requires that we also confer the same respect to employee technological boundaries as we have for physical boundaries. Barging into a coworker's office, family dinner, or even bedroom for an immediate work response is antisocial. Yet we tolerate and encourage similar behaviors in electronic communications, with employees feeling pressured to respond quickly to the detriment of their sleep and well-being (Barber and Santuzzi 2015). It's time for organizations to systematically tackle the wild west of technological ground rules. This will involve devoting extensive training and resources to improve e-etiquette among workers, including establishing and role modeling healthy boundaries among organizational leaders.

Those are just few examples, but my hope is that the science and practice of occupational health psychology can finally help organizations overcome a preference for the physical workspace in our thinking, writing, and actions. Telework is no longer “away” from workplace – it's the new conventional workplace. Because words matter, maybe we'll need a term for that rare occasion people are physical working together. How does periwork sound?¹

Anti-Asian Racism and Discrimination

Mindy Bergman, Texas a&M University

In the wake of COVID19, there has been a troubling trend of a rise in anti-Asia and anti-Asian² sentiments in general, and specifically anti-China and anti-Chinese

¹ Peri is the Greek prefix for around or nearby. The term telework came from the Greek prefix for distant (tele).

² In the United States, the concept of “Asian American” is used in place of specific Asian ethnic identities in public discourse, survey research, and other areas. This erasure of specific identities (generally by the majority) have numerous consequences, many beyond the scope of this paper (e.g., Cheryan and Monin 2005; Flores and Huo 2013; Yu 2006). Under the current COVID19 circumstances, this means that all Asians—not just people from China or of Chinese descent—are treated as one in the US.

sentiments, in the United States and around the world (Hong 2020; Kandil 2020; Kwai 2020; Rich 2020; Tavernise and Oppel Jr. 2020). This was, unfortunately, predictable. The coronavirus that causes COVID-19 made its earliest appearances in the Wuhan province of China (World Health Organization 2020). Given that this is a *novel* coronavirus, people were motivated to understand and explain the event.

Attribution theory describes how people create folk understandings about who or what is responsible for an event. The primary attribution that people try to make is whether an individual's behavior is caused by that person's desires, attributes, and interests or whether their behavior has a situational cause. People—at least, people in Western society (Henrich et al. 2010)—generally default to explaining behavior as caused by individuals, as this is the simplest explanation, and discount that explanation when there are good reasons to do so (Gilbert 1998). We can extrapolate this to a major event, like COVID19, and again see how an “individual explanation” (i.e., Asia/Asians) rather than a situational explanation (e.g., complex issues regarding food chains, human-animal interactions, global trade and global travel) result in a sense of blame toward Asia and Asians for COVID19, despite the evidence that there are many causes that led to the emergence and spread of this virus.

Social identity theory describes how and why people make distinctions between in-groups and out-groups and the treatment of people therein (Abrams and Hogg 2010). For a focal person, in-groups are groups that they identify as being part of whereas out-groups are other groups. In general, people prefer their in-groups and derogate outgroups. Under conditions of threat and fear (like COVID19), these tendencies often increase (Ellemers et al. 2002). Combining attribution theory and social identity theory, people are motivated in the context of COVID19 to derogate Asia/Asian people (in the US) and China/Chinese people (around the world, with the exception of China—which has itself recently exhibited a rise of nationalism and anti-American sentiments; Wang and Qin 2020).

Further, Asians in America are targets of racism. Although in some circumstances they are perceived as a “model minority,” this stereotype both minimizes the diversity of experiences of Asian people and provides a justification for systems of racism, class inequality, and unequal opportunities in schools and other settings (see Yu 2006, for a review). Relatedly, although not the focus herein, there are reports that Black Americans hesitate to wear protective masks in public because of their fears of racist interactions being more likely and more dangerous when they wear masks (Taylor 2020).

For occupational health scientists, although none of these effects are surprising, there are still important research questions to ask. Rather than focus on the factors that lead to some workers being targeted or the negative outcomes that they experienced, research should focus on the specific conditions of the situation and the characteristics of perpetrators that lead those perpetrators to engage in race-based mistreatment at those particular times and places and in those particular ways (Cortina et al. 2018). Knowing more about the contextual cues that perpetrators use to understand that it is “safe” to act and more about perpetrators themselves is a fruitful avenue to reducing mistreatment.

For occupational health practitioners, these troubling events suggest the importance of deploying mental health support to racial minority workers—not just to Asian workers but especially to Asian workers—because of the micro- and macro-aggressions that they are likely to experience. Occupational health practitioners can also deploy surveys or experience sampling methods to document the extent of

mistreatment and use these data to model whether there are particular hot spots or times that need to be managed.

Managers should share many of the concerns and practices that occupational health practitioners have. Additionally, they should think about the following. First, what can they do to protect their minority workers from mistreatment—from coworkers and from customers? Relatedly, how can managers protect their minority customers from mistreatment from other customers and from workers? Some of this can come from subtle messaging, such as signs that thank workers and customers and include diverse people in the photos, with Asian and other minority workers or customers front and center. But some of it must come from direct action. Managers can prioritize their workers' and customers' well-being above and beyond any one sale; in these difficult economic times, it is hard to forgo any sale, but the costs to people (e.g., mental health, exhaustion, fear) and to organizations (e.g., lowered productivity, employee turnover) when managers do not remove perpetrators from the premises are likely to be much higher in the long run than the loss of any single sale. Lastly, managers should believe their employees and customers when racist mistreatment is reported. It is too easy for many people who do not experience racism to write it off as a misunderstanding. Taking employee and customer testimony of their mistreatment at face value is an important part of supporting diversity and inclusion in the organization.

Unique Occupational Health Risks for Emergency Healthcare Professionals

Thomas Britt, Clemson University

Emergency healthcare professionals are experiencing the most immediate effects of the COVID-19 pandemic as a result of providing care to individuals testing positive for the virus. Although the workload facing healthcare professionals varies by country and by locations within the United States, all healthcare professionals share concerns regarding their personal risk of contracting the illness and thereby passing the illness to family members. In addition, emergency personnel face a host of unique work demands addressing treatment of patients with the virus, including the potential lack of personal protective equipment (PPEs), lack of critical equipment for treating serious cases of COVID-19 (e.g. ventilators, intubation chambers), and the potential for moral injury through having to decide which individuals will receive life-saving treatment and who will not (Sasangohar et al. 2020).

Healthcare professionals are facing these demands in conjunction with their traditional demands of work overload, illegitimate tasks associated with the completion of highly detailed electronic health records, and in some cases concerns about job security as a function of their work hours being reduced as a result of non-COVID-19 procedures being reduced or eliminated. In examining occupational health consequences for healthcare professionals during the past SARS outbreak, researchers found an increased probability of alcohol abuse for hospital employees (Wu et al., 2008), as well as higher rates of psychological distress (Grace et al., 2005), for employees working in high-risk locations during the pandemic.

Importantly, the different work stressors facing healthcare professionals during the COVID-19 pandemic have come at a time when physician burnout was already being recognized as a significant problem prior to the pandemic (Dyrbye et al. 2017; Shanafelt et al. 2012). Therefore, it is especially important to identify personal and work-related resources (Bakker and Demerouti 2017) that have the capacity to protect the mental and physical health of emergency healthcare professionals during and following the COVID-19 pandemic. Prior research among emergency medicine physicians has suggested that meaningful work may be an important resource in offsetting the negative effects of different workplace stressors (Ben-Itzhak et al. 2015). Emergency professionals have identified multiple sources of meaning in their work, including working in a dynamic and diverse context, treating patients with interesting problems, and having a positive impact on both patients and society (Ben-Itzhak et al. 2015).

These same sources of meaning are present for emergency healthcare professionals dealing with the COVID-19 pandemic. These healthcare professionals know they are at the front lines in the fight against the pandemic and that they are in a position to positively impact both patients and family members of the patient through effectively treating the illness. I (Thomas Britt) am part of a research team being led by Marissa Shuffler that is currently examining the demands facing emergency medicine personnel during the COVID-19 pandemic, as well as the resources they are utilizing to cope with these demands. A large number of emergency personnel have identified meaningful work as being an important resource for dealing with COVID-19 demands that are present, as well as positively impacting patients with the virus.

In addition, positive leadership (Kelloway et al. 2013) and an organizational climate supporting psychological health (McLinton et al. 2018) are also critical to help buffer emergency personnel from the demands they face when treating patients with COVID-19. Kelloway et al. (2013) found that positive leader behaviors, including praising employees and going out of their way to help them, were associated with higher levels of employee wellbeing and affect. In addition, extensive research supports the mental health and well-being benefits of employees believing their organizational culture is characterized by an emphasis on psychological health and well-being of employees being a priority (McLinton et al. 2018). These leader behaviors and workplace characteristics are especially critical for emergency healthcare professionals dealing with COVID-19-related demands.

Coronavirus and Stress

Adam Butler, University of Iowa

It's difficult to imagine a more extreme stressor, affecting the global population simultaneously, than the coronavirus pandemic. Although the virus itself can cause ill-health and death in those infected, work-related stress associated with the pandemic can be another cause of disease. For some occupations, such as healthcare providers, the pandemic increases occupational stressors like workload and environmental dangers. Moreover, it can seem like the virus is out of our control, or as aptly put by infectious disease expert Dr. Anthony Fauci, "You don't make the timeline; the virus makes the timeline (LeBlanc 2020)." Although the coronavirus pandemic is a unique

stressor, occupational health researchers and practitioners can use well-established models and strategies to understand and effectively respond to the needs of workers during this time.

Stress is an unpleasant experience for most people and is also a significant risk-factor for disease, including heart disease, metabolic syndrome, and mood disorders. Stress can lead to disease through physiological and behavioral pathways (Gianaros & Wager, 2015; Greer and Payne 2014). Behaviorally, work-related stress is associated with increased alcohol consumption and unhealthy eating. Thus, the idea of “quarantine 15,” that people will gain weight while isolating at home, actually has an empirical basis. There really are not comparable events to predict the strain that will inevitably result from coronavirus but tracking the effects on workers now and long after the virus has been controlled is an important role for occupational health researchers.

For researchers and practitioners, the job demands - resources model provides a useful framework for thinking about work-related stress during the coronavirus pandemic. The model holds that job demands create strain for workers, and that this strain is exacerbated by a lack of job resources (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Under this framework, the most stressful jobs are exactly the type many workers essential to virus responding are now facing: High workload demands, with little control over the work. Although questions remain about the robustness of the model, research generally indicates that these occupational stressors are related to poor health (Nixon, Mazzola, Bauer, Krueger, & Spector, 2011). While certain occupations have extreme episodic stressors (e.g., holiday season for package delivery), we really do not know how exposure to very high levels of occupational stressors for longer periods of time impacts people. Anecdotally, we currently see physically and emotionally exhausted healthcare workers treating the infected.

Are there evidence-based solutions to help frontline workers manage stress during a pandemic? Scientist-practitioners seeking an answer to this question can rely on a preventive stress management model derived from public health (Quick, Wright, Adkins, Nelson, & Quick, 2013). Primary prevention strategies seek to target the work conditions causing stress. Reducing workload during a pandemic may not be an option for critical workers, but it may be possible to target other stressors such as perceived lack of control (Spector, 2002). In a longitudinal study of nurses, Ganster, Fox, & Dwyer (2001) found that perceptions of control were negatively related to health care costs and completely mitigated negative associations with patient contact hours.

Whereas primary prevention strategies target elements of the work environment, other approaches in the preventive stress model focus on helping people exposed to those environments. Secondary prevention strategies are designed to help individuals better manage their stress response. For example, mindfulness training delivered at work is associated with reduced stress and anxiety (Bartlett et al., 2019). Finally, for those workers already experiencing significant strain, tertiary strategies, such as an employee assistance program, are necessary (Cooper, Dewe, & O’Driscoll, 2011). A comprehensive preventive stress management plan can reduce stress and improve well-being during this difficult time, and coupled with careful evaluation, may serve as a model for effective occupational health responding.

Presenteeism and COVID-19

Michael Ford, University of Alabama

Many workers attend work while ill during normal times. In one survey of American health care workers, for example, 40% of those who developed flu-like symptoms said they worked through their illness (Chiu et al. 2017). Meanwhile, news reports indicate that some workers are attending work while ill even during the COVID-19 pandemic (Abrams and Silver-Greenberg 2020). In several industries and occupations, including many of those in manufacturing, construction, health care delivery, and the service sector, working from home is not a realistic option. Coming to the workplace while ill in these settings can put customers and other workers at risk and potentially increase the spread of the coronavirus. Physical distancing guidelines are difficult to follow strictly in many of these occupations and industries, and yet governments have deemed much of their work essential. This means that organizations and governments must balance the health of workers and those they serve with their need to continue operations and meet the needs of their customers, patients, and society.

Research indicates that attending work while ill, sometimes labeled *presenteeism*, can be motivated by both extrinsic pressures and intrinsic motives. The strongest extrinsic factors in presenteeism are strict absence policies, heavy workload, and staffing difficulties (Johns 2010; Miraglia and Johns 2016). Workers who perceive that their organizations will punish them for staying home or that their work will suffer in their absence are more likely to attend while sick. They are also more likely to presentee when there is nobody to replace them (Aronsson and Gustaffsson 2005). At the same time, workers are more likely to attend work while ill if they are affectively committed (Miraglia and Johns 2016) and see their work as a public service (Jensen et al. 2019). This means that presenteeism tends to be higher among workers who have a strong emotional attachment to their employers and who care intrinsically about the outcomes of their work.

In light of this research, there are several ways that organizations can discourage workers from attending work while experiencing COVID-19 symptoms or other illnesses. First, organizations can implement less punitive absence policies. Workers who are penalized for absences face difficult decisions about whether to prioritize public health or their own income (Khazan 2020). If sickness absences do not result in a loss of pay or other benefits (e.g., vacation time), this should reduce the motivation of workers to attend if they are symptomatic or exposed to the coronavirus. The informal practices of the supervisor can also be important. If supervisors clearly encourage employees to stay home while ill and exercise discretion in the enforcement of absence policies, they may further discourage presenteeism. The mutual trust between the employee and the supervisor should be especially helpful in that it gives employees the psychological safety to communicate their symptoms and request paid time off if needed.

At the same time, organizations need to staff their workforce at levels that are adequate to handle workload spikes and increased levels of absenteeism. Adequate staffing capabilities that can cover for workers' absences may remove some motivation for exposed or infected workers to attend work. Organizations can also train workers to perform their coworkers' tasks so that they are less reliant on a single worker, further reducing employees' fears that their work will suffer if they do not attend. Strategic

contingency planning for higher levels of absenteeism may also aid in maintaining continuity in the face of potential increases in absenteeism.

As organizations and society navigate the tradeoffs between public health and business continuity for the duration of the COVID-19 pandemic, many workers are likely to face difficult decisions about whether to attend work while experiencing symptoms of illness. Absence policies, staffing practices, and supervisor support and discretion can play a role in reducing the spread of the disease across the workforce and those they serve by discouraging presenteeism.

Supervisor Support for Employees during the COVID-19 Pandemic

Leslie B. Hammer, Oregon Health & Science University and Portland State University

Supervisors and managers have a critical role in providing care, compassion, and support to workers during, and following, the COVID-19 pandemic when employees are under additional, atypical, stress. Such stress can vary from the front-line essential workers' fears for their own health and safety and their concerns about the safety and health of family members, to concerns related to job security during a time of significant job loss, to stress resulting from managing remote work and child care together. The role of supervisors and managers in understanding and responding to occupational health, safety, and well-being concerns has never been so important.

During this time when social contact and connection may be greatly jeopardized for many employees due to social distancing rules, the role of supervisor support is elevated. Employees' fears and stress related to the COVID pandemic have the potential to significantly impact their performance at work, and it is vital for supervisors to understand their role in supporting and helping to alleviate the stress of those on their team. Supervisor support for family, also known as Family Supportive Supervisor Behaviors (FSSB), has been shown to lead to improvements in employee health, well-being, and work outcomes (e.g., Hammer et al. 2011), and can come in the form of emotional support, instrumental support, role modeling and creative management (Hammer et al. 2009). Supervisor support is also important because of their role as gate keepers to top organizational leaders and to accessing key organizational resources, programs, and policies. Supervisors should know about up-to-date safety risks both on the job and at home due to the COVID-19 pandemic as well as important workplace resources that are available (see CDC COVID-19 resources for businesses and employers www.cdc.gov/coronavirus/2019-ncov/community/organizations/businesses-employers.html).

Training supervisors how to better support workers during this time offers an organizational strategy to prevent or reducing the stress and strain their employees are particularly feeling related to COVID. Based on social support theory (Cohen and Wills 1985), supervisor supportive training teaches supervisors about how they can exercise their critical role and behave in ways that better support workers, leading to improvements in work, health, safety, and well-being outcomes. More specifically, supervisor supportive training has been shown to lead to improved employee outcomes such as performance and retention, health, and well-being of employees and their families (e.g., Hammer et al. 2019; Odle-Dusseau et al. 2016), and thus, may be used

to mitigate the impact and negative effects of uncertainty, fear, and threat that is currently experienced by employees.

Research on FSSBs (Hammer et al. 2009) is based on four types of supervisor support: instrumental, emotional, role modeling, and creative work-life management support. *Emotional support* involves supervisors demonstrating that an employee is being cared for, and his or her feelings are being considered. This can be achieved through increasing communications with employees and asking employees how they are doing or communicating genuine concern about employees' work/life challenges. *Instrumental support* involves helping workers manage schedules and working with employees to solve schedule conflicts. *Role modeling* occurs when a supervisor demonstrates he or she is taking care of her or his own work/life challenges. And finally, *creative work-family management/win-win management* is aimed at redesigning work to support the conflicting employee work-life demands in a manner that is a win-win for both employees and employers. An example of this type of support is promoting cross-training and the ability for shift trades to jointly enable employee scheduling flexibility needs and work coverage. This is especially important to prepare a workplace for when employees are sick and need to take time off.

It is important for supervisors and managers to recognize the difference between extreme stress reactions that are signs of a serious mental health crisis and those that represent less acute mental health challenges, and know how to both support and respond to employees (Dimoff et al. 2016). Supervisors should stay up to date on safety and public health COVID-19 responses relevant to their team/unit and also know when a team member needs additional professional help and where to refer them. Finally, supervisor support is important not just during a crisis, but can help employees every day. Employees will be feeling the effects of the COVID pandemic for a long time due to extensive job loss, illness and death, and family disruption that occurred during the acute phase. Supervisors should be aware of these long-term effects of the pandemic and be prepared to provide employees the support they need.

Supporting Worker Safety

Lisa Kath, PhD, San Diego State University

Never before have I seen so much discussion of worker safety as I have during the novel coronavirus pandemic. We hail grocery store workers and other “essential personnel” as heroes, but are we doing enough to keep them safe?

It can be helpful for occupational health scientists to communicate basic principles to those without our specialized knowledge, so I summarize and provide relevant examples of one approach: the hierarchy of controls (NIOSH 2015). I'll also identify research areas that might help us advance our understanding of worker safety and end with some core tenets about worker safety.

The most effective ways to address a work hazard are through elimination, which is the physical removal of the hazard, or substitution, which is replacing a hazard with a less-hazardous option. Eliminating the novel coronavirus is the purview of other scientists who are working on treatments and vaccines, so these controls are outside our scope. Thus, we turn to lower-level controls to keep workers safe.

Engineering controls seek to isolate people from the hazard at the source. For example, a restaurant can increase the distance between cashier and customer by placing a table in front of the cash register. Another example is the use of positive pressure airflow for workers in smaller spaces (such as transit employees who work in booths). Understanding specifics about how the novel coronavirus spreads would be very helpful in designing appropriate engineering controls.

However, it is impossible to engineer a completely safe job, so using administrative controls (changing the ways people work) is also important. Workers should be consulted on changes to policies and procedures, perhaps through the use of a *safety committee* (e.g., McGuire et al. 2020). The committee may recommend that their restaurant have a cup of clean pens for signing receipts and a place for used pens, with a new procedure for sanitizing used pens.

Good *safety leadership* (Clarke 2013) is important to communicate changes and motivate employees to comply with changes. Transformational safety leaders can have a team meeting to talk about the importance of employee and customer safety, and they can encourage employees to support each other implementing these new procedures. More research is needed on the effects of worker participation and safety leadership on outcomes such as the implementation speed for new safety procedures.

Safety training may be required to teach employees new protocols. Consulting workers on the design of the training is key to creating effective training (Noe and Kodwani 2018). More research could be done on how to design and implement safety training under high time constraints. Employees' shared perceptions of safety policies and procedures form your *safety climate*, which can strongly influence safety behaviors. If employees feel leaders are "talking the talk" about safety but not "walking the walk," then safety outcomes can worsen (e.g., Huang et al. 2018). It would be helpful to learn more about how quickly and in what ways safety climate changes when organizations are facing a new threat to worker safety.

The last level of control is the use of personal protective equipment (PPE). Although this framework is called the "hierarchy" of controls, with PPE being the least effective, I prefer to think of these controls as interdependent aspects of a worker safety strategy. This perspective is especially useful in times like these, when there is still a lot to be learned about the hazard itself. We must assume that engineering approaches may be inadequate, and thus PPE should be used even if engineering and administrative controls have been implemented. Further, more research is needed about the effectiveness of different types of PPE against this virus.

One major challenge we face during this pandemic is a worldwide shortage of PPE. This means that sometimes, ideal safety procedures cannot be followed. There are no easy answers for organizations in this unenviable situation. However, core tenets about worker safety might be helpful to keep in mind.

First, involving workers in safety solutions leads to better outcomes. Second, interventions at various levels of the hierarchy of controls are best thought of as interdependent, especially when hazards are not fully understood. Third, a true commitment to worker safety means you don't view it as a problem to be solved at one point in time. Rather, you commit to listening to workers, improving processes, and correcting problems as an ongoing practice. These tenets can help organizations establish an appropriate amount of trust with employees to optimize both safety and productivity (Conchie et al. 2016).

Economic Stress during the Coronavirus Pandemic

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At the beginning of March 2020, the U.S. unemployment rate stood near a record low of 3.5%. A mere three weeks later, unemployment claims skyrocketed with 3.3 million workers filing for unemployment in a single week – representing an increase of over 1000% and more than any other week experienced in U.S. history. A further three weeks later and the U.S. had lost virtually all the jobs it had gained in the past decade since the recession of 2008–2009. Economists project that the social distancing measures required to combat the spread of COVID-19 and protect the nation’s public health will come at a steep cost to workers with estimated unemployment rates as high as 30% and a sharp shrinkage in the national gross domestic product (Matthews 2020). Thus, in addition to the unprecedented scope of the global public health crisis, the short- and long-term economic ramifications are going to be unlike anything the world has ever seen.

Researchers have long studied the effects of economic stressors likely to occur as a result of the pandemic, including job insecurity, unemployment, underemployment, and financial strain. Decades of research demonstrates the numerous adverse negative effects that these stressors can have on workers and their families, including reduced physical and mental health, poorer long-term career outcomes, and impaired marital, family, and social relationships (see meta-analyses by Jiang and Lavaysse 2018; McKee-Ryan et al. 2005; McKee-Ryan and Harvey 2011; Richardson et al. 2013).

Despite the seemingly bleak outlook, there is also hope due to the unique nature of the pandemic itself. Unlike previous recessions, the layoffs that are occurring today are not the fault of outsourcing, globalization, disappearing industries, or technology shifts, but rather due to a microscopic virus. Once a vaccine to combat this virus is found and/or widespread testing is available, people will once again travel, eat out at restaurants, attend sporting and entertainment events, pick up a coffee, and otherwise engage in many of the activities that drive the global economy. In other words, the economy has the potential to rebound quickly, although likely not as quickly as it collapsed. This is known as a V-shaped recovery, rather than a U- or (even worse) an L-shaped recovery (Winck 2020). Although no historical event is directly comparable to the current global pandemic, perhaps since the Spanish flu of 1918, similar V-shaped recoveries were seen after unexpected exogenous shocks to the system such as the 9/11 terrorist attacks in 2001 and the 2011 Fukushima earthquake. Thus, the question becomes: while we wait for the pandemic to subside, what can employees, companies, and policymakers do *now* to stave off economic insecurity and its negative effects?

While many companies (particularly small businesses) do not have the cash reserves needed to maintain payroll while their workers may be under “Stay at Home” orders, layoffs do not always need to be the answer. Indeed, policymakers have developed creative solutions that are particularly apt for this unique event. For example, in several European countries, governments are offering businesses grants equivalent to 70–90% wage replacement for their employees as long as they do not lay them off. In doing so, employees can maintain needed financial and employment security. Moreover, businesses can avoid the costly process of laying off and then later seeking and re-hiring qualified employees. Such policies are in line with research showing that employees in societies with generous social safety nets suffer fewer adverse consequences of

economic stressors such as job insecurity (e.g., Debus et al. 2012). Research also suggests that adverse effects can be attenuated to the extent that organizations are up front and honest in communicating with their employees about the future of their jobs during the pandemic and provide opportunities for employees to participate in organizational decision making processes (e.g., Jiang and Probst 2014; Probst 2005).

Nevertheless, given that estimates suggest nearly 200 million employees worldwide may lose their jobs as a result of the pandemic (International Labor Organization 2020), it is critical to address the potential lost *latent* and *manifest* benefits of employment (Jahoda, 1982). For those who lose their jobs (or those who fear it might happen), it is imperative that generous unemployment benefits be granted while also waiving the usual accompanying job search requirements. After all, it is unrealistic to expect a laid off worker to be applying for a new job if their entire state is under a shelter in place order.

In addition to the manifest benefit of income, research has shown that employment provides numerous latent benefits as well, including time structure, opportunity for social engagement, activity, and collective purpose (e.g., Creed and Macintyre 2001). For individuals who do lose their jobs, it is vital that while at home, they develop and maintain a daily schedule. They could seek out virtual opportunities for engaging with family and friends through social media, Zoom, or other mechanisms. They could also contribute to collective purpose by shopping for groceries for elderly neighbors, donating blood, or sewing CDC-recommended masks. The key is to recognize that the loss of one's job does not need to result in the loss of the remaining latent benefits.

Lessons learned from prior research on economic stress can mean less hardship and uncertainty in the months to come. In the end, the economy will eventually rebound and the world will recover from this cataclysmic event. Ultimately, what that changed landscape looks like tomorrow will in large part be affected by what companies and policymakers do today.

Death Reminders at Work amid a Pandemic

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The COVID-19 pandemic, which had resulted in more than 190,000 deaths worldwide as of April 24, 2020, is exposing many employees to death reminders at work. Death reminders comprise external stimuli that remind individuals of death, such as witnessing or hearing about a death. Healthcare professionals are attending to patients at the risk of contracting the virus themselves; employees working in essential jobs are voicing elevated concerns about their own well-being; those working from home are anxious about community transmission and are finding it difficult to stay focused and productive amid the constant barrage of news about the rising death toll.

Exposure to death reminders at work creates a tremendous amount of stress: It is linked to a host of maladaptive outcomes, such as burnout, post-traumatic stress disorder, and absenteeism (Sliter et al. 2014a; Sliter et al. 2014b). As death reminders may be part of many employees' lives in the upcoming weeks and months, what can organizations and employees do to mitigate their detrimental impact?

One critical answer lies in how individuals approach the topic of death (Grant and Wade-Benzoni 2009). A common type of death-related cognition—death anxiety—treats death as an unpleasant topic that individuals simply wish to avoid. Individuals high on death anxiety react with panic and fear at the thought of death, which leaves them vulnerable to the distressing effects of death reminders at work. For example, research shows that acute care nurses with high levels of death anxiety report elevated levels of burnout after experiencing death reminders at work (Sliter et al. 2014a).

However, not all death-related attitudes are negative. Death reflection reflects a growth-oriented approach toward thinking about death (Cozzolino 2006; Grant and Wade-Benzoni 2009). With death reflection, individuals put the topic of death in context and contemplate the ways that they can make their own lives meaningful. In other words, death reflection does not refer to the glorification of death, but rather involves restructuring life around its meaning and purpose. Recent research supports the protective role of death reflection, as firefighters high on death reflection have been shown to be able to stay focused on working safely without being distracted by death reminders at work (Yuan et al. 2019). They also report greater levels of life satisfaction.

Critically, what distinguishes death reflection from death anxiety is the level of cognitive processing. That is, instead of treating death as an aversive topic at an abstract level, individuals who engage in death reflection deliberately process death reminders at a concrete level, focusing on the positive aspects associated with death (Cozzolino 2006). From a practical standpoint, this distinction between death anxiety and death reflection offers some directions for organizations and employees to minimize the detrimental impact of death reminders at work.

From an organizational standpoint, providing resources (e.g., protective gear, counseling services) can greatly minimize employees' anxiety associated with being exposed to the coronavirus. This can protect employees' physical and mental health and help them stay focused on executing their work tasks. Further, managerial support for employees (e.g., effective communication about contingent plans, alternative work arrangements) can buffer the distress associated with death reminders at work.

For employees, it is important to recognize that distress in response to death reminders at work is an appropriate reaction. In fact, the COVID-19 pandemic is causing major disruptions to so many aspects of employees' lives that it should be considered a traumatic event on a global scale (Janoff-Bulman, 1992). In such trying times, accepting how one feels opens up the possibility of more adaptive coping.

In addition to direct encounters with death reminders at work, the possibility of indirect exposure through media reports warrants attention. As media exposure risks creating indirect trauma (Propper et al. 2007), employees may want to refrain from excessive news consumption. Constantly checking for news updates will contribute to rumination over the aversive death reminders and lead to feelings of helplessness.

Most importantly, employees are encouraged to process death reminders in a concrete, deliberate way. In particular, daily reflective writing can be an effective activity to shape such concrete processing (Bono et al. 2013). For example, employees can reflect on and write about how thinking about death motivates them to put their lives into perspective, to help others and leave a legacy, and to live meaningfully (Yuan et al. 2019).

As many employees—Occupational Health Psychologists (OHPs) included—scramble to adjust to the trying times (and in many unfortunate cases, mourn the loss of lives), it is hoped that the scientific knowledge regarding death reminders at work can prove useful in the workplace and beyond. Further, the unprecedented scale of the COVID-19 pandemic calls for a multilevel theoretical lens in future research to understand how occupational health interventions and practices can protect the well-being of employees confronted with death reminders at work and contribute to effective pandemic preparedness and response.

Conclusion

As we put this paper together, we quickly realized that there were far more than 10 issues that could be addressed and far more than 10 people who could address them (examples include COVID-19 implications for aging workers, fairness issues related to hazardous pay, work schedules, and health-focused job design interventions).. Moreover, each issue discussed in this paper could easily be an entire paper on its own. However, we hope this paper serves as an initial inspiration to occupational health researchers to address the unanswered scientific questions related to COVID-19 implications for occupational health as well as to organizations searching for scientifically supported practices to protect their workers.

The COVID-19 crisis will end. Yet, history tells us that there will be more such events in the future, events that cause us to literally and figuratively drop everything to focus on the problem at hand. One potential bright spot that may come from the COVID-19 crisis is increased recognition of our interconnectedness – that workers from all walks of life are affected by large scale health threats and that all workers make valuable contributions to society. Hopefully, we can find a greater appreciation for all of the workers whose sacrifices have helped us contend with the pandemic as well as those who will help us recover. Occupational health scientists can honor their contributions by developing and disseminating knowledge learned from this crisis to create even safer and healthier workplaces.

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