

Researching employee experiences and behavior in times of crisis: Theoretical and methodological considerations and implications for human resource management

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Hannes Zacher 
Leipzig University, Germany

Cort W Rudolph 
Saint Louis University, USA

Abstract

Over the past 2 years, numerous empirical studies in the fields of human resource management, organizational behavior, and industrial, work, and organizational psychology have investigated employee experiences and behavior during the COVID-19 pandemic. The goal of this paper is to take a step back and to outline several theoretical and methodological considerations when researching employee experiences and behavior in times of crisis more generally. These insights may be useful when developing conceptual models, designing empirical studies, and managing people in the context of future crises. We first review theoretical approaches that could be applied to explain changes in employee experiences and behavior in times of crisis, including stress theories, theories of adjustment to work-related changes, career construction theory, event system theory, transition-adaptation theories, the crisis management and resilience framework, and the social identity model of identity change. Second, we outline methodological considerations and best practices regarding the research design of quantitative empirical studies, sampling, measurement, and analytic strategies. Throughout, we highlight empirical studies on employee experiences and behavior during the COVID-19 pandemic that have adopted these theoretical approaches and methodological best practices. We conclude with several suggestions for future theory development and empirical studies on employee experiences and behavior as well as human resource management in times of crisis.

Keywords

COVID-19, crisis, human resource management, organizational behavior, transitions

Corresponding author:

Hannes Zacher, Institute of Psychology – Wilhelm Wundt, Leipzig University, Neumarkt 9-19, Leipzig 04109, Germany.

Email: hannes.zacher@uni-leipzig.de

Introduction

Crises involve events that can be characterized by several forms of “un-ness”—they are unexpected, unscheduled, unimaginable, unprecedented, uncertain, undesirable, unpleasant, and often unmanageable (Hewitt, 1983). Examples of crises include natural disasters (e.g. earthquakes, hurricanes, floods, droughts, bushfires), wars, military evacuations, genocides, famines, mass shootings and terrorist attacks, hijackings and kidnappings, industrial and nuclear accidents, aircraft and marine accidents, data security violations, disruptions in the delivery of essential goods and services (e.g. due to political embargoes on im- or exports), plant closures, large-scale product recalls, financial meltdowns and economic downturns, as well as epi- and pandemics (Rosenthal and Kouzmin, 1997). As these examples illustrate, a crisis can occur at the organizational, local, national, or international level and includes one or more specific critical events (e.g. a bomb attack, a national lockdown). Based on Rosenthal et al. (2001), a *crisis* has been defined as a period of time during which “a community of people—an organization, a town, or a nation—perceives an urgent threat to core values or life-sustaining functions, which must be dealt with under conditions of uncertainty” (Boin and ‘t Hart, 2006: 42). This definition characterizes a crisis as a time of discontinuity and change with three key components—threat, uncertainty, and urgency. At the same time, the definition emphasizes that a crisis must be actively managed to avoid further harm to people and their environments. If a crisis is not managed, or is poorly managed, it can turn into a disaster or catastrophe (Boin and ‘t Hart, 2006).

Starting in late 2019, humanity had to deal with a large-scale global crisis that affected virtually every individual, work team, organization, and society on earth, albeit to different extents: the COVID-19 pandemic. After the first cases of a new respiratory disease were reported in the People’s Republic of China in late 2019, the SARS-CoV-2 virus spread rapidly around the globe, and COVID-19 was declared a pandemic on March 11, 2020 by the World Health Organization. Between mid-March and the summer of 2020, most Western countries, such as Germany and the United States, experienced the first “wave” of COVID-19 infections and took various measures (e.g. physical distancing, lockdowns, working from home) to “flatten the curve.” By the time of the writing of this article, there have been several more infection waves, more than 250 million people worldwide had been infected by the virus, and more than 5 million people died due to, or in association with, COVID-19 (Johns Hopkins University, 2021).

The pandemic forced employees in most, if not all, industries to change the ways in which they conduct their work and to adapt to various organizational changes (e.g. increased safety precautions, working from home, reduction of work hours, layoffs). Thus, unsurprisingly, this global crisis has grabbed the attention of scholars in the neighboring fields of human resource management (HRM), organizational behavior, and industrial, work, and organizational psychology. Numerous empirical studies (e.g. Meyer et al., 2021; Syrek et al., 2021; Zacher and Rudolph, 2021b), reviews and commentaries (e.g. Ashforth, 2020; Bailey and Breslin, 2021; Carnevale and Hatak, 2020; Collings et al., 2021; Kniffin et al., 2021; Rudolph et al., 2021), editorials (e.g. Caligiuri et al., 2020; Fouad, 2020; Rigotti et al., 2020), and special issues (e.g. Cohen et al., 2021; Obschonka et al., 2021; Weigelt et al., 2021) on COVID-19, employee experiences and

behavior, and HRM have been published or are forthcoming. Of course, several empirical studies have examined employee experiences and behavior in the context of earlier, mostly national crises, for example, political system changes (Earle and Gehlbach, 2015; Fay and Frese, 2000), civil war (Reade and Lee, 2012), terrorist attacks (Bacharach and Bamberger, 2007; Bader and Berg, 2013), and natural disasters (Hochwarter et al., 2008; Kuntz et al., 2013: see Rudolph and Zacher, 2017, for an overview of such “contemporaneous period effects”). However, the number of empirical studies, reviews, and commentaries on the COVID-19 pandemic and employee experiences and behavior that have appeared to date is unprecedented.

Crises such as the COVID-19 pandemic represent both an opportunity and a challenge for research and practice in the fields of HRM, organizational behavior, and industrial, work, and organizational psychology. On the one hand, they allow investigating whether and how events associated with the crisis (e.g. infection outbreaks, lockdowns, working from home orders, changes in working conditions) affect dynamic within-person changes in employee experiences and behavior. Studies can also examine how employees’ environment (e.g. work and family characteristics, HRM practices, national safety nets) may impact the direction and strength of such trajectories of experiences and behavior in times of crisis. Moreover, crises enable a better understanding of relevant meta-concepts such as employee resilience and adaptability (Bliese et al., 2017; Kuntz, 2021). On the other hand, due to the threatening nature, uncertainty, and urgency of crises, researching employee experiences and behavior in times of crisis can represent an enormous challenge for theory development and rigorous study design (see also Buchanan and Denyer, 2013). Last but not least, HRM practitioners need to know which policies and management practices are, based on research evidence, best suited to successfully manage people in times of crisis, and which existing policies and practices may have to be adapted.

In the current paper, we take a step back and reflect on what we have learned about researching employee experiences and behavior in times of crisis in the years 2020 and 2021, based on our own conceptual and empirical work on the COVID-19 pandemic and employee experiences and behavior (Rudolph and Zacher, 2021b; Rudolph et al., 2021; Zacher et al., 2021; Zacher and Rudolph, 2021a; Zacher and Rudolph, 2021b), as well as the work of our colleagues. We first review theoretical approaches that (could) have been applied to understand changes in employee experiences and behavior during the COVID-19 pandemic, as well as theoretical approaches that could be applied to examine these phenomena during future crises. Second, we outline several methodological considerations and best practices for quantitative empirical studies on employee experiences and behavior in times of crisis. Consistent with most research in the fields of HRM and adjacent fields (Kornau et al., 2020; Primecz, 2020), our focus is on quantitative empirical studies within the positivist (or functionalist) research paradigm, which aims at *explanation* of the existing societal status quo and assumes an “objective world that can be represented by concepts and propositions” (Bonache and Festing, 2020: 101). In contrast, we do not cover qualitative methodology and research based on the interpretivist (or constructivist) research paradigm, which aims at *understanding* of the societal status quo and assumes that “we live in multiple, socially constructed views of social reality” (Bonache and Festing, 2020: 101). Moreover, in this article we do not discuss research based on critical (or radical humanist/structuralist) and postmodern (or poststructuralist)

discourses, which aim to *question and/or change* the existing societal status quo (for further details on the prevalence and study of HRM issues based on these alternative research paradigms, see Bonache and Festing, 2020; Burrell and Morgan, 1979; Primecz, 2020). Throughout the first two sections, we highlight empirical studies on employee experiences and behavior during the COVID-19 pandemic, particularly with regard to the theoretical and methodological approaches applied. We conclude the paper with several suggestions for future theory development, empirical studies on employee experiences and behavior, as well as effective HRM practices in times of crisis.

Theoretical considerations

In the following, we review theoretical approaches that can be used to explain how employees react and adapt to crises and associated events. Specifically, we consider stress theories, theories of adjustment to work-related changes, career construction theory, event system theory, transition-adaptation theories, the crisis management and resilience framework, and the social identity model of identity change. Importantly, our focus is on how *individual employees* respond to and deal with crises, whereas we do not consider theoretical approaches that focus only on the organizational level, that is, how organizations may respond to crises (e.g. Bundy et al., 2017). However, it is important to note that such a focus on (predictors of) individual employee experiences and behavior is an essential basis for the successful development and implementation of effective HRM practices in times of crisis (see Butterick and Charlwood, 2021; Caligiuri et al., 2020; Carnevale and Hatak, 2020; Collings et al., 2021).

Stress theories

Crises and associated events can be conceptualized as stressors that reside in employees' environment (e.g. work, family) and that they perceive, evaluate, and have to cope with. Thus, stress theories are relevant for understanding employee experiences and behavior in times of crisis. Among the most important stress theories are the transactional stress model, conservation of resources theory, and the job demands-resources model (for a review, see Dewe et al., 2012). The *transactional stress model* proposes that individuals appraise events with respect to their health and well-being as either irrelevant, benign-positive, or stressful (i.e. primary appraisal), with stress appraisals being further categorized into harm-loss, threat, and challenge (Lazarus and Folkman, 1984). In a next step, individuals assess their coping options, that is, what they can do about the stressor (i.e. secondary appraisal). The combination of primary and secondary appraisals then leads to strain, coping behaviors, and potential reappraisal processes. The transactional model of stress is relevant to study employee experiences and behavior in times of crisis, because it explains how the effects of a crisis or crisis event on employee well-being and strain are mediated by appraisal and coping processes. For example, a study on changes in employees' subjective well-being during the first national lockdown due to the COVID-19 pandemic in Germany (i.e. March to May 2020) used the transactional stress model to investigate effects of stress appraisals (e.g. threat, challenge, centrality, controllability) and coping strategies (e.g. active problem-solving, positive reframing, seeking social

support, substance use) on individual differences and intraindividual changes in subjective well-being (Zacher and Rudolph, 2021b). Another study based on the transactional stress model found that the perceived strength of the COVID-19 crisis among frontline healthcare workers was negatively associated with their work engagement and taking charge at work, especially when work meaningfulness was low (Liu et al., 2021). From a practical perspective, research based on the transactional stress model may suggest which HRM practices can help employees appraise and cope with a crisis in a way that fosters well-being and reduces strain (e.g. training and support: employees who feel knowledgeable and supported by their organization perceive a crisis as a challenge that they can successfully deal with given their personal and social resources).

Conservation of resources theory suggests that strain occurs when there is a threat of or an actual loss of resources (i.e. things that one values) or a lack of resource gain after resource expenditure (Hobfoll, 1989). Accordingly, the theory postulates that individuals try to protect their resources, for example by investing resources to protect against resource loss, to recover from loss, and to gain additional resources. Individuals with more initial resources or resource gains are more likely to experience further resource gains, whereas those with fewer initial resources or resource losses are more likely to experience further losses (Hobfoll et al., 2018). Conservation of resources theory is relevant for studying employee experiences and behavior, especially well-being and strain, in times of crisis, because crises and crisis events threaten individuals' resources and complicate resource gains. Thus, based on this theory, HRM practices should support employees' efforts to protect, recover, and expand their resources in times of crisis (e.g. by offering additional instrumental, informational, and emotional support to those who struggle with balancing work and caregiving responsibilities; Carnevale and Hatak, 2020).

The *job demands-resources model* classifies job characteristics broadly into demands and resources, which are thought to lead to strain and motivation, respectively (Demerouti et al., 2001). Moreover, high levels of job resources can weaken the effects of demands on strain, and high levels of job demands can strengthen the effects of job resources on motivation. The model is relevant for studying employee experiences in times of crisis, because crises can be assumed to lead to changes in employees' work characteristics (e.g. increased emotional demands, reduced cognitive resources). Accordingly, based on the job demands-resources model, HRM practitioners should focus on reducing stressful work demands (e.g. work-family conflict, job insecurity) and on increasing work-related resources (e.g. flexibility, supervisor support).

Two studies on COVID-19 and work have drawn from conservation of resources theory and the job demands-resources model. First, a three-wave study conducted from April to June 2020 in Germany examined interactive effects of the duration of the pandemic, its demands (e.g. working from home, job insecurity), and personal and job-related resources (e.g. job autonomy, social support) on employee exhaustion (Meyer et al., 2021). A key finding of this study was that women who work from home and take care of their young children at home are especially exhausted, and that job autonomy and partner support can alleviate this effect. Another longitudinal study conducted between January and May 2020 in the Netherlands also drew from conservation of resources theory and the job demands-resources model (as well as the transactional stress model).

Results showed that the work engagement of employees working from home decreased, whereas their job satisfaction increased over time (Syrek et al., 2021). Moreover, trajectories of employee reports of work-non-work balance, workload, and autonomy need satisfaction showed initial declines during crisis onset and subsequent recovery over time.

Theories of adjustment to work-related changes

The *theory of work adjustment* is based on the broader person-environment fit framework and explains how the congruence between employees and their work environment leads to longer job tenure (Dawis and Lofquist, 1984). Specifically, the theory suggests that the higher the congruence between employees' abilities and their work requirements, the higher their performance and the more likely they will be perceived as satisfactory by their employer. Moreover, the higher the congruence between the supplies of a job and employees' needs, the more likely they will perceive their job as satisfying. The higher employees' satisfactoriness and satisfaction, the longer their tenure. The theory is relevant for studying employee experiences and behavior in times of crisis, because crises and crisis events are likely to lead to changes in both employees' abilities and needs (e.g. reduced ability to concentrate, increased need for emotional support), as well as work requirements and supplies (e.g. increased safety precautions, reduced customer contact). In terms of practical implications, scholars have argued that adaptations of HRM practices in times of crisis (e.g. transitioning to virtual recruitment, selection, and training) will likely impact employees' perceived person-environment fit (Carnevale and Hatak, 2020). Thus, organizations will need to consider which practices can be implemented to deal with potential misfit (e.g. socialization practices, training).

Another important theory of adjustment to work-related changes, the *theory of work role transitions*, focuses on the effects of changes in employment status, intra- or inter-organizational mobility, or major changes in job content on "individual adjustment" (Nicholson, 1984). Individual adjustment includes employees' personal development of the capacity to deal with new demands (i.e. adaptivity) and role development through the self-initiated redesign of work demands (i.e. proactivity; Nicholson, 1984). The theory is relevant for studying employee experiences and behavior in times of crisis, because crisis events may require that employees transition to new work roles with different demands and resources (e.g. a pediatric nurse who now has to help out in the intensive care unit). Importantly, research suggests that employees differ in their dispositional tendency to resist such changes within organizations (Oreg, 2003). Employees with higher cognitive rigidity, a greater preference for routines, stronger negative emotional reactions to imposed changes, and a short-term focus (Oreg et al., 2008) should generally have more difficulty adjusting to work-related changes due to a crisis.

The theory of work role transitions proposes four categories of predictors of adjustment to work role transitions, including (a) the requirements of the work roles between which the worker is transitioning (e.g. low discretion, high novelty of role demands), (b) the psychological characteristics of the worker (e.g. high desire for control and feedback, dispositional resistance to change), (c) the worker's earlier occupational socialization into work roles (e.g. discretionary shift, low novelty of role demands), and (d) the current

organizational induction and socialization practices that influence adjustment to the new role (e.g. sequential vs random). The interplay between these individual and organizational determinants, in turn, is proposed to lead to different levels and combinations of personal and role development efforts. Based on the theory of work role adjustment, relevant HRM practices that may support employee adaptivity and proactivity in times of crisis include personnel selection, onboarding, job design, training, and organizational socialization. Related theoretical approaches include the model of narrative identity work in macro work role transitions (Ibarra and Barbulescu, 2010) and the theory of discontinuous career transitions necessitated by traumatic life events, such as war injuries (Haynie and Shepherd, 2011). In the context of the COVID-19 pandemic, research has drawn from the theory of work adjustment and the theory of work role transitions to examine individuals' adjustment to telework among newcomers to telework (Carillo et al., 2021).

Career construction theory

Career construction theory adopts a differential, dynamic, and lifespan developmental perspective on how individuals make vocational choices, impose meaning on their career experiences, and adjust to work-related challenges in a rapidly changing and increasingly flexible career context (Savickas, 2013). The theory proposes three major work-related challenges that require individuals to adapt, including vocational development tasks (i.e. age-graded normative transitions, such as retirement), occupational transitions (i.e. career mobility), and work traumas (i.e. unpredictable and undesired events, such as company closings, accidents, and contract violations). Thus, career construction theory is relevant for investigating employees' career-related experiences and behavior in times of crisis and, in particular, when individuals face work-related transitions and traumas due to a crisis. The theory suggests that individuals adapt to these work-related challenges by engaging in a set of five adaptive activities, including orientation (i.e. to increase awareness), exploration (i.e. information seeking and informed decision making), establishment (i.e. trial behaviors leading to a stable commitment), active role management, and forward-looking disengagement (Savickas, 2013). Moreover, adaptation can be facilitated by high levels of career adaptability, which involves four psychosocial coping resources (i.e. attitudes, beliefs, and competencies) for addressing unfamiliar, complex, and ill-defined problems inherent in work-related challenges: (a) showing *concern* about one's vocational future, (b) having personal *control* over the future, (c) showing *curiosity* by exploring future selves and scenarios, and (d) having the *confidence* to pursue one's aspirations (Savickas, 2013: for meta-analyses, see Rudolph et al., 2017a, 2017b). Numerous empirical studies have been conducted based on career construction theory (Rudolph et al., 2019b) and the related life design perspective (Savickas et al., 2009). Recently, researchers have suggested that these career theories could be fruitfully applied to understand employees' career-related experiences and behavior in times of crisis, such as the COVID-19 pandemic (Maree, 2021; Wen et al., 2020). HRM practitioners could make use of research evidence based on career construction theory to adapt their organization's approach to career management and to support employees who experience a "career shock" in times of crisis (Akkermans et al., 2020).

Event system theory

Event system theory aims to explain the nature of events, as well as the consequences of events over time and within and across multiple hierarchical levels, ranging from the individual level to the broader societal level (Morgeson et al., 2015). The theory defines events as discrete (i.e. bounded in time and space), discontinuous (i.e. non-routine), and observable circumstances or actions in the environment (i.e. external to employees; Morgeson et al., 2015). An “event system” involves the interaction of event strength, space, and time. First, the theory suggests that *event strength*, or the likelihood that the event becomes salient and leads to changes in employee experiences and behavior, is determined by the extent to which the event is novel (i.e. a new or unexpected phenomenon), disruptive (i.e. a clear discontinuity in the environment), and critical (i.e. important, commanding attention; Morgeson et al., 2015). Second, the notion of *event space* entails that events occur in a specific location and hierarchical level (e.g. society, organization, team, individual). Effects of events that originate at a certain hierarchical level can affect outcomes at a higher, lower, or the same level (Morgeson et al., 2015). Event system theory predicts that strong events are more likely to change employee experiences and behavior when they occur at higher (vs lower) levels, and when they have an impact on a larger (vs smaller) number of different levels (Morgeson et al., 2015). Finally, *event time* refers to the timing of an event and how long its effects last (e.g. 1 day vs 2 months). Event system theory proposes that strong events are more likely to change employee experiences and behavior when they have a longer (vs shorter) duration and when their strength increases over time (Morgeson et al., 2015). Due to its relatively broad scope, event system theory is well-suited to investigate the effects of crisis events on employee experiences and behavior. Accordingly, in the context of the COVID-19 pandemic, the theory has already been applied numerous times, for instance to explain changes in helping behavior at work (Shoss et al., 2021), work-family conflict and enrichment (Vaziri et al., 2020), virtual teamwork (Klonek et al., 2021), job insecurity (Lin et al., 2021), and job search behavior (McFarland et al., 2020). From a practical perspective, event system theory could provide insights into how HRM practices (e.g. training, performance management), which reside at the organizational meso-level, may buffer or intensify potential negative effects of macro-level crisis events on individual employee experiences and behavior.

Transition-adaptation theories

Transition-adaptation theories explain the developmental changes or trajectories in experiences and behavior that take place before and after employees are exposed to a transition event (Bliese et al., 2017). According to Schlossberg (1981), who developed an early transition theory to explain how people react and adapt to various life events (e.g. starting college, retirement), a *transition* occurs “if an event or nonevent results in a change in assumptions about oneself and the world and thus requires a corresponding change in one’s behavior and relationships” (p. 5). Schlossberg (1981) further defined *adaptation to a transition* as “a process during which an individual moves from being totally preoccupied with the transition to integrating the transition into his or her life” (p. 7).

Schlossberg argued that the extent to which individuals adapt successfully to a transition depends on the interplay between event characteristics (e.g. novelty) and individual difference characteristics (e.g. self-efficacy).

More recently, Bliese et al. (2017) outlined a methodologically based framework on transitions to advance theory and research on the patterns of discontinuous changes in employee experiences and behavior due to transition events. The simplest discontinuous growth model has three parameters: (a) the pre-event covariate (TIME_{pre}) that represents the pre-transition slope, or the trajectory of an employee outcome before the event; (b) the transition covariate (TRANS) that represents the contrast between the values in the outcome before and immediately after the event; and (c) the recovery covariate (RECOV) that represents the trajectory of the outcome (i.e. increases, but potentially also decreases) after the event (Bliese et al., 2017). The discontinuous growth model further allows examining predictors of each of these three parameters. For example, employees with certain levels of an individual difference characteristic (e.g. generalized self-efficacy) or employees with access to certain HRM practices (e.g. flexible working hours) may show stronger or weaker increases or decreases in the outcome in the period before encountering the event, upon encountering the event (i.e. the transition), and/or during the post-transition period. The framework by Bliese et al. (2017) can be used to study the trajectory of employee experiences and behavior before the onset of a crisis event, immediate effects of the crisis event, employee resilience (i.e. individual characteristics or HRM practices that buffer a negative transition effect), and recovery in experiences and behavior as the crisis becomes weaker or as employees adapt to it. Thus, research based on event system theory could provide useful insights as to *when* the implementation of HRM practices in times of crisis may be most or least beneficial.

In the context of the COVID-19 pandemic, a recent longitudinal study applied Bliese et al. (2017) transition framework and discontinuous growth modeling to examine pre-transition, transition, and recovery effects in self-reported work performance before, during, and after the first national lockdown in Germany in the spring of 2020 (Zacher et al., 2021). The study found decreases in task proficiency and proactivity due to the lockdown and subsequent recovery patterns in these forms of work performance over time. Moreover, the study showed that declines in task proficiency, adaptivity, and proactivity due to the lockdown were stronger for those workers who reported greater (vs no or little) work-related changes (e.g. new demands, fewer resources) due to the pandemic during the lockdown. Finally, high levels of core self-evaluations (i.e. a compound trait composed of generalized self-efficacy, self-esteem, internal locus of control, and emotional stability) strengthened the recovery patterns in task proficiency and adaptivity, but not proactivity, in the first 4 months following the lockdown.

Crisis management and resilience framework

Developed in the management literature, the integrative process framework of crisis management and resilience aims to explain how individuals, organizations, and communities anticipate and respond to various forms of adversity (Williams et al., 2017). Based on their definition of a *crisis* as “a process of weakening or degeneration that can culminate in a disruption event to the actor’s (i.e. individual, organization, and/or community)

normal functioning” (p. 739), Williams et al. (2017) define *crisis management* as “the actor’s attempt to bring a disrupted or weakened system at any stage of crisis back into alignment to achieve normal functioning” (p. 740). Moreover, based on a multi-disciplinary review, the authors define *resilience* as “the process by which an actor (i.e. individual, organization, or community) builds and uses its [financial, cognitive, behavioral, emotion-regulation, relational] capability endowments to interact with the environment in a way that positively adjusts and maintains functioning prior to, during, and following adversity” (Williams et al., 2017: 742).

The crisis management and resilience framework suggests that employees who develop cognitive, behavioral, emotion-regulation, and relational capabilities are better able to anticipate crises and adapt and respond more successfully to them (Williams et al., 2017; see also Soto et al., 2021). Moreover, these capabilities continuously interact with individuals’ risk management efforts as they process, address, or miss crisis-related threats. The researchers suggest that, over time, gradual weakening due to ongoing adversity could lead to a crisis, or a surprising crisis event could occur, to which individuals need to respond cognitively and behaviorally. The model also proposes a feedback loop leading from individuals’ crisis experiences to preparations for future crises. Finally, according to Williams et al. (2017) model, resilience may lead to both positive (e.g. increased perseverance) and negative outcomes (e.g. resistance to change, failure to adapt). Based on the crisis management and resilience framework, organizations could design and implement HRM practices (e.g. training, performance management) that support employees in building resilience and in successfully anticipating and responding to crisis events. Several primary studies (e.g. Coulombe et al., 2020) and a literature review (Heath et al., 2020) have highlighted the importance of crisis and risk management as well as resilience as key predictors of healthcare workers’ health and well-being during the COVID-19 pandemic.

Social identity model of identity change

Based on social identity theory and its central assumptions regarding the importance of social group memberships, the social identity model of identity change explains the effects of life transitions on changes in people’s health and well-being (Haslam et al., 2021). The model is relevant for the study of employee experiences and behavior in times of crisis, because crises can lead to significant life changes, such as a sudden illness or death of a loved one, job loss, or permanently working from home, and corresponding changes in group memberships. The model assumes that multiple and personally meaningful group memberships can protect individuals against potential health and well-being declines due to life changes, because these memberships provide individuals with social-psychological adaptation and coping resources (e.g. social support). This protection manifests through two pathways: (a) maintaining previously existing group memberships, or the “social identity continuity pathway,” and (b) acquiring new group memberships, or the “social identity gain pathway” (Haslam et al., 2021). The model further suggests that these pathways are strengthened when the preexisting and new group memberships are compatible with each other. HRM practitioners could draw from the social identity model of identity change to design

practices (e.g. onboarding, retention) that help employees maintain existing group memberships within the organization and establish new group memberships in times of crisis. The social identity perspective has recently been applied to understand healthcare professionals' work experiences during the COVID-19 pandemic (Kröger, 2020). Another cross-sectional survey study showed that employee perceptions of social identity continuity during the COVID-19 pandemic (e.g. "Since the outbreak of the coronavirus, I still belong to the same groups at work I was a member of before the outbreak") were positively associated with job satisfaction and negatively associated with loneliness at work (Krug et al., 2021).

Methodological considerations

With a clearer sense of the theoretical models that are useful for explaining changes in employee experiences and behavior during a crisis, we next turn our attention to various methodological considerations (i.e. study design, sampling, measurement, and analytic strategies) that are important to take into account when designing studies to test various tenets of these models. To accomplish this, we review (more or less) common methodological approaches and best practices to empirically study employee experiences and behavior in times of crisis. We highlight, where possible, examples of empirical studies on COVID-19 that use these approaches and that are consistent with our recommendations. As already noted in the introduction, our focus here is on quantitative empirical studies in the tradition of the positivist research paradigm, whereas we do not cover research methodologies employed in other paradigms (e.g. interpretivist, critical discourse) that are represented within the fields of HRM, organizational behavior, and industrial, work, and organizational psychology (see Bonache and Festing, 2020; Burrell and Morgan, 1979; Kornau et al., 2020; Primecz, 2020).

Study design

There is no single "ideal" study design for understanding employee experiences and behavior during crises, however study design decisions should be informed primarily by theoretical considerations. Moreover, it is important to recognize that there are strengths and weaknesses to every study design, which variously support or limit the conclusions that one can draw from their data. For example, cross-sectional research designs may be of some value for capturing a descriptive "snapshot" of the current state of affairs during a crisis, but are of limited value to broader inferences about change or causality. For example, as part of a larger multi-study effort, Shockley et al. (2020) used a cross-sectional survey design to provide important insights into how rapid shifts to working from home during the COVID-19 pandemic affected employee health and well-being. The results of this study then informed the design of additional studies that, for example, used a daily diary design to further investigate these phenomena. So far, several studies on the COVID-19 pandemic and work have utilized true longitudinal research designs (i.e. a complete panel design, wherein data are collected from the same respondents at three or more time points; Ployhart and Vandenberg, 2010). As an example, Griffiths et al. (2021) used a three-wave longitudinal design to investigate relations between work status and

health between March and December 2020, finding that job loss during the early stages of the pandemic was associated with decreased mental and physical health over time.

In designing longitudinal studies, issues surrounding timeframes for collecting data are important to consider, and especially so during a crisis. For example, the presence (or absence) of baseline (i.e. pre-crisis) data affects the types of research questions that can be asked. With the ability to control for baseline levels in a given phenomenon, stronger inferences about changes in that phenomenon (i.e. transitions) due to the crisis can be drawn. For example, in a two-wave study conducted in September 2019 and April 2020, Möhring et al. (2021) found a mean-level decrease in work satisfaction, which was stronger for mothers and those without children who transitioned to short-time work as a result of the pandemic. Although the presence of baseline data is a strength, importantly, studies conducted in situ (i.e. during the crisis) are likewise telling of how employee experiences and behavior may differently unfold, in a comparative sense, during such situations. For example, Angelucci et al. (2020) modeled job losses in a longitudinal panel dataset collected from approximately 7000 U.S. workers every other week between mid-March and late July 2020; they find that job losses were as much as three times as high for non-remote workers compared to remote workers during this time span.

The issue of timeframes also pertains to the length of time between study lags (e.g. days, weeks, months). To this end, another common research design, diary studies, are useful for capturing moment-to-moment variability in daily experiences. For example, Ménard et al. (2021) used a diary design to study relations between recovery experiences and well-being during the April 2020 lockdown, with results suggesting that various discrete forms of COVID-19-relevant recovery experiences (e.g. pandemic-related psychological detachment) earlier in the day buffered against the experience of negative mood states later in the day. Longitudinal and diary designs can be combined in so-called “measurement burst” designs (see Sliwinski, 2008), wherein longer-term longitudinal designs (e.g. monthly data collections) are augmented with the collection of short “bursts” of data collected within a shorter time frame (e.g. daily data collection). Such designs are useful for disentangling longer-term within-person changes in state-like characteristics from shorter-term fluctuations in within-person states. For example, albeit not in the context of the COVID-19 pandemic, Simons et al. (2018) used a measurement burst design to study relations among post-traumatic stress and alcohol consumption using 10 week-long measurement “bursts” collected across a 1.5-year timeframe. More related to the COVID-19 pandemic crisis and approximating a measurement burst design, Brose et al. (2021) collected a diary study of well-being across 1 week during the COVID-19 pandemic, bookended with pre- and post-measures of stress appraisals. Results suggest that mental well-being declined across the duration of the study, and that this decline was associated with changes in one’s appraisals of the pandemic, and daily experiences of negative affect.

Although important for understanding the nature of intra-individual change during crises, longitudinal study designs, like all observational designs, are limited in their capacities for drawing causal inferences. The nature of one’s research question should determine the extent to which a causal (i.e. rather than a descriptive) inference is necessary. For example, in a within-person field experiment, Shockley et al. (2021) manipulated camera use (on or off) to examine its effects on virtual meeting fatigue

during the COVID-19 pandemic. Moreover, extensions of basic longitudinal designs often employed by economists lend themselves to stronger causal inferences. For example, natural experiments (Shadish et al., 2002) may adopt difference-in-difference (i.e. DiD) or regression discontinuity designs (see Hahn et al., 2001; Lechner, 2010). In addition, absent baseline data, propensity score matching can be used to approximate a pre-crisis group that has similar characteristics as the crisis group. Of relevance here, to assess changes due to the COVID-19 lockdown in New Zealand, Sibley et al. (2020) used propensity score matching to compare matched pre-lockdown and lockdown groups on measures of health and well-being, as well as institutional trust and attitudes toward the nation and government.

Finally, although the focus here has been on quantitative methods, the results of such studies of crises can be augmented by consideration of qualitative data as well, and this is especially so to the extent that findings from qualitative studies inform or are triangulated against those findings from quantitative studies. Results of qualitative studies can also contribute to theory development on employee experiences and behavior in times of crisis. For example, based on insights gained from structured interviews and critical incident analyses with members of multidisciplinary crisis management teams during the COVID-19 pandemic, Thielsch et al. (2021) derived an integrative conceptual model on characteristics of the pandemic, team challenges, demands, and resources, as well as effective behaviors. Wang et al. (2021) conducted a qualitative interview study of remote work effectiveness during the COVID-19 pandemic, and used these results to inform a follow-up quantitative survey study. Moreover, it is also possible and favorable for quantitative and qualitative approaches to be combined into a mixed-method design. For example, Goldfarb et al. (2021) take a mixed-methods approach to understanding how employment changes affected the well-being of autistic employees during the COVID-19 pandemic. Moreover, Murphy et al. (2021) studied the implementation of remote healthcare among U.K. primary care physicians using a longitudinal mixed-methods design.

Sampling

Discussions of sampling in quantitative research typically surround the issue of representativeness—the correspondence between features of one’s sample and the population to which one wishes to generalize their findings (Sudman, 1976). Considering the study designs describe above, especially against the backdrop of a crisis, raises related concerns about sampling that bear particular attention here. For example, the pandemic has imposed new exogenous groupings onto employment classifications (e.g. “essential” vs “nonessential” employees). So far, research has focused on comparing employees from such classifications to one-another. For example, van Zoonen and Ter Hoeven (2021) studied work-related disruptions and general distress among “essential” and “non-essential” employees.

Considering representativeness also raises various issues related to the idea of sample selection (Heckman, 1979), which requires particular attention when conducting research in times of crisis. It could be that, owing to various socioeconomic, contextual, biological, and/or psychological individual differences, specific “types” of people are more (or

less) likely than others to agree to participate in research during a crisis. This is of particular note to the extent to which these features are of relevance to the research questions under investigation. For example, if healthier, wealthier, and employed individuals are more likely than others to respond to one's survey, then the results have been implicitly conditioned on these features of the sample, which affects not only the broader generalizability of the results, but also likely misestimates the potential effects that would have been observed under the condition of no selection. Importantly too, sample selection also affects the ability for one to draw appropriate inferences regarding effect magnitude, especially to the extent that it represents range restriction on focal variables of interest (Dahlke and Wiernik, 2020).

A related issue, sample attrition, is of particular concern in longitudinal research designs. Random attrition (i.e. that which results in missingness that is *at least* demonstrably missing at random or "MAR") is well-accounted by modern estimation-based (e.g. full information maximum likelihood or "FIML" estimators; Enders and Bandalos, 2001) or multiple imputation (e.g. multiple imputations by chained equations or "MICE" algorithms; Van Buuren and Oudshoorn, 1999) procedures. However, like sample selection, non-random attrition is a particular concern to valid inference, especially to the extent to which unmodeled features of substantive variables result in people having a higher likelihood of "leaving" the sample. During a crisis, this may result in those with higher (physical and/or mental) well-being being more likely than those with lower well-being to be present in one's sample over time (i.e. a "healthy worker effect"; Eisen et al., 2014). Related to this, actual mortality (i.e. death) of study participants is a real and present concern in the face of any crisis, and especially during a global pandemic. To address sample attrition, Goodman and Blum (1996) offer a set of comprehensive tests to gauge the influence of attrition on study results.

Measurement

A close consideration of the operationalization of key constructs is imperative to all quantitative research endeavors, however, as we have seen with related considerations, the nature of crises brings specific concerns to bear on measurement. Of primary concern during a crisis situation is whether to consider "crisis-specific" measures (e.g. in the U.S., there is a National Institutes of Health sponsored "toolkit" of COVID-19 related measures that is freely available to researchers: <https://www.phenxtoolkit.org/collections/view/8>) or general measures developed for use outside of crisis situations. To the extent that "crisis-specific" measures are well constructed, following modern best practices for the development of psychometric instruments, their context specificity (e.g. stress during COVID-19 vs stress "in general") may represent higher fidelity measures, as compared to broader bandwidth "general" measures (Salgado, 2017). A strong caveat here, of course, is that this bandwidth-fidelity tradeoff is predicated upon the context specific measure being well developed, and possessing clear evidence in support of construct validity. Still, the use of broader bandwidth and context general measures has benefits as well. For example, especially in longitudinal research where context is modeled implicitly (e.g. by directly parameterizing changes that occur over time, in situ, during a crisis), it may be of more benefit to understand how non-context-dependent

measures change over time, against the backdrop of the crisis. Using such measures likewise lends itself better to comparing results from pre- to post-crisis time points, where the meaning and relevance of a crisis-specific measure may have changed. Researchers should thus consider both crisis-specific (e.g. especially crisis perceptions, such as stress appraisals; Zacher and Rudolph, 2021b) and general measures.

Regardless of the type of measurement, it is incumbent upon the researcher to provide evidence in support of the validity of their measures for their particular purposes. One piece of evidence that supports this inference comes from presenting measurement models (i.e. confirmatory factor analyses) that support the structure of one's measures. Relatedly, inferences about changes in constructs over time or between groups necessitate the consideration of measurement invariance (e.g. Vandenberg and Lance, 2000). Conclusions regarding changes in constructs over time or differences between groups (or changes in group differences, over time) are only valid to the extent that measurement is demonstrably consistent across such units.

Analytical strategies

In many respects, analytical strategies are tied to the particular study designs employed. Longitudinal research designs implicitly nest observations within person, over time. Thus, models that can account for this non-independence are important to consider. Two analytic strategies are commonly employed to this end: multilevel modeling (MLM; e.g. Ployhart and Vandenberg, 2010; Wang et al., 2017) and latent growth curve modeling in a structural equation modeling framework (LGCM; e.g. McArdle and Bell, 2000).

Although intrinsically related to one another (i.e. MLM and LCGM are equivalent models in certain cases, see Bliese and Ployhart, 2002; Curran, 2003), there are advantages and disadvantages to each. For example, MLM allows for more flexibility in modeling within-person variation that is not time-conditional and for ease of implementing different forms of autoregressive error structures. LGCM allows for more flexibility in modeling multivariate data structures and offers greater ease in implementing robust estimation-based procedures (i.e. FIML) for addressing missing data. In both MLM and LGCM, it is possible to specify and test (un)conditional continuous latent growth models (Singer and Willett, 2003). Likewise, it is possible in both model frameworks to specify and test (un)conditional discontinuous growth models (Bliese and Lang, 2016) and also more generalized "spline" growth models to represent discontinuities (Grimm et al., 2016; Schuelke et al., 2013). Importantly too, there are extensions of LGCMs that allow for the specification of exogenous latent classes to define differential growth trajectories, which represent unmeasured categorical latent variables that define sub-categories of one's sample, over time, that differ in the form and/or direction of their trajectory (Wang and Hanges, 2011). Such models are particularly relevant to studies that explore sub-populations that may be differentially affected (e.g. declining vs stable trajectories) by a crisis.

Regarding the modeling of changes over time, it is important to recognize and control for the influence of time, so as to rule out alternative explanations that may covary along with substantive study variables over time (e.g. seasonal effects, see also Singer and Willett, 2003). Researchers are also encouraged to consider novel and eclectic data sources in studying crises, which may be facilitated by using technologies that enable

data capture from large, publicly available online sources. For example, Min et al. (2021) used web scraping to collect over 1.5 million tweets that reflect people's emotional reactions to work from home orders during COVID-19, and applied discontinuous growth modeling to investigate how stay-at-home orders changed the trajectories of emotional responses to working from home.

Recommendations for future research and HRM practice

Theory development

In this paper, we have summarized several theoretical approaches, ranging from stress to transition-adaptation to social identity theories, that have been and could be used to examine employee experiences and behavior in times of crisis. These theories have in common that they propose an external factor (e.g. stressor, event, work role change, or life change) that individuals perceive, react to, and may cope with in different ways. Importantly, research on employee experiences and behavior in times of crisis should be clear about what exactly constitutes the crisis (e.g. an outbreak of coronavirus cases in an organization, the COVID-19 pandemic as a whole), which specific crisis events are investigated (e.g. a national lockdown, working from home orders), and why a theoretical approach is particularly suitable to examine the organizational, work-related, and individual consequences of this crisis and/or associated events. When adopting a specific theoretical approach, researchers should carefully consider the specific assumptions and propositions of the approach (e.g. regarding main effects, mechanisms, boundary conditions) and explain how they are considering these assumptions and propositions in their study. For instance, several studies on employee experiences and behavior during the COVID-19 pandemic have adopted event system theory (Morgeson et al., 2015) as their overarching theoretical framework, but these studies did not empirically test the theory's propositions on the effects of event systems (*n.b.* this would require variability in event characteristics). Instead, the theory is typically used rather generally to justify effects of the COVID-19 pandemic and associated events (e.g. lockdowns) on employee experiences and behavior. Scholars should also explain how their study contributes to theory development in this research area. For instance, how does testing theoretical assumptions in the context of the pandemic lead to new insights about employees' responses to crises more generally?

The theoretical approaches we present could also be integrated with each other and possibly with additional theories to gain a better understanding of employee experiences and behavior in times of crisis. For instance, conservation of resources theory (Hobfoll, 1989) could be combined with the more recent social identity model of identity change (Haslam et al., 2021) to explain how changes in valued group memberships and social support resources are associated with employee health and well-being in times of crisis. Moreover, event system theory (Morgeson et al., 2015) and transition-adaptation theories (Bliese et al., 2017) can be fruitfully integrated to explain how employees initially react to and, over time, recover from crisis events (e.g. lockdowns), for instance in terms of perceived stressfulness (Zacher and Rudolph, 2021a) or self-rated work performance (Zacher et al., 2021).

Empirical studies

Given the methodological considerations outlined above, we next offer advice for developing future quantitative empirical studies on employee experiences and behavior in times of crisis. First and foremost, and bridging arguments made in the previous section with those presented here, it is imperative to ensure that crisis theories are well-accounted for by chosen research methods. That is to say, there must be a match between theory on the one hand, and the particular methodology used to test that theory on the other. For example, adaptation to change caused by an event—a common element of crisis theories—implies a within-person process (Jundt et al., 2015). Thus, to test theories that posit adaptation to change requires both the collection of longitudinal data across multiple time points, and for those time points to encompass the event that is hypothesized to account for change and subsequent adaptation.

Beyond careful considerations of how to optimally match theory to methods, to the extent that it is practicable, research should endeavor to collect pre- and post-crisis data. As suggested, the ability to control for “pre-crisis” levels (i.e. baseline levels of measured phenomena that occur prior to the onset of the crisis) offers a number of advantages to the study of crises, especially the ability to more clearly understand the effects of the onset of the crisis against pre-crisis levels. Moreover, statistically, controlling for baseline levels at least partially accounts for certain regression artifacts, including especially regression to the mean (Campbell and Kenny, 1999). While easy advice to offer, we also recognize that this is a challenging suggestion in many ways, not least of which is that anticipating certain crises is often difficult or impossible. To this end, COVID-19 presented a particularly opportune moment to anticipate a global crisis; as the virus spread, and cases grew, researchers could anticipate the need to adapt pre-existing programs of research to account for the changes that the pandemic brought to bear on workplaces, HRM, and employee experiences and behavior (e.g. Zacher and Rudolph, 2021b).

One of the arguments that we have carried throughout this work is that the ability to capture and model dynamic within-person processes, and reactions to critical crisis-relevant events, is key to understanding the nature of crises. Beyond this general advice, we also offer that researchers should pay attention not only to within-person changes and variability (i.e. intra-individual differences) in measured constructs over time, but also to between-person (i.e. inter-individual) differences and inter-individual differences in intra-individual phenomena. In considering between-person/inter-individual differences as such, researchers would be well served to focus on person-level or contextual variables that serve as boundary conditions and differentiate reactions to crises (e.g. modifiable factors or individual differences that demarcate positive vs negative trajectories). In considering such variables, it is important to consider those that could be either intervened upon or be the focus of a targeted intervention to improve people’s experience of the crisis. For example, Rudolph and Zacher (2021b) report that, on average, family demands increased between April 2020 and early September 2020, and that being an unpartnered parent of children under the age of 18 years was associated with especially strong increases in family demands across this timespan. The implication of these findings is that interventions targeted at helping people better manage family demands during this crisis would be optimally targeted toward single parents of young children.

It is also important for researchers to plan studies to be informative of future crises and related phenomena beyond “the current crisis” (see also Buchanan and Denyer, 2013). Since research on the impacts of COVID-19 on work has been accumulating for nearly 2 years, researchers should now consider how the result of such research would generalize to other crises, and to think about and plan for how research conducted during COVID-19 may help to inform future research regarding crises in general. For example, research that takes a broader view on employee experiences and behavior during crises is likely to be impactful and useful toward understanding similar situations in the future (e.g. “crisis leadership”; Bavik et al., 2021). Another more direct and actionable way to facilitate the translation of what we are learning about the pandemic crisis to future crises is to ensure that the results of primary empirical studies are reported completely, clearly, and credibly (Rudolph, 2021; Zhang and Shaw, 2012). We suggest that researchers studying the impacts of crises should adhere to open science practices, especially making data and code, and the products of the research process (e.g. papers, talks, supplemental materials) freely and openly available to the public. Finally, we encourage researchers to carefully consider our advice offered here to avoid common pitfalls in designing, conducting, and reporting studies on crises. The promise of research on employee experiences and behavior during crises is great, as it helps us not only to understand current states of crisis, but also plan for and anticipate future crises. To optimize such future-focused efforts, it is imperative that a robust base of empirical research is available to inform evidence-based practice.

HRM practice

According to Collings et al. (2021), HRM leaders play a key role in human crises, such as the COVID-19 pandemic (as opposed to finance and IT leaders during financial and technological crises). Strong theory and rigorous empirical research can serve as an important basis for effective HRM practice. A number of recent review articles have summarized implications for HRM in times of crisis based on empirical research conducted before and during the COVID-19 pandemic (e.g. Bailey and Breslin, 2021; Collings et al., 2021; Rigotti et al., 2021; Rudolph et al., 2021). For instance, Caligiuri et al. (2020) outlined a number of evidence-based international HRM practices that can be used to mitigate experiences of stress, uncertainty, and anxiety among employees working in different countries and with people from different cultures in times of crisis. First, they argued that organizations should select for tolerance for ambiguity, resilience, and curiosity. Second, organizations should offer training to improve (cross-cultural) relationship formation and virtual collaboration skills (regarding organizational investments in training for specific vs generic human capital resources, see Oh and Han, 2021). Third, organizational support practices during a crisis may include webinars on resilience, tutorials on mindfulness, employee assistance programs, and virtual counseling services.

Researchers have further recommended that organizations select and develop leaders who function effectively in times of crisis (e.g. continue to project vision, supervise from a distance) and who are able to adapt their behavior, particularly their communications

with employees, to crisis events (Kniffin et al., 2021; Rudolph et al., 2021). During a health crisis like the COVID-19 pandemic, HRM practices such as training and feedback interventions should focus on leaders' health-related attitudes, values, and behaviors (Rudolph et al., 2019a; Wegge et al., 2014). Indeed, a recent study showed that higher levels of health-oriented leadership mitigated subordinate exhaustion particularly when the COVID-19 pandemic was experienced as crisis; however, results also demonstrated that the more the pandemic was experienced as a crisis, the lower employees' ratings of their supervisors' health-oriented leadership (Klebe et al., 2021). Another study conducted during the early stages of the COVID-19 pandemic found that older employees' work ability (i.e. the perceived ability to meet one's work demands) benefits from an approach to age-differentiated leadership (Wegge et al., 2012) that considers older employees' needs, whereas younger employees' work ability benefited from high levels of leader-member exchange and a balanced approach to age-differentiated leadership (Koziel et al., 2021).

Carnevale and Hatak (2020) pointed out several HRM challenges and opportunities due to external crises and unprecedented events, such as the COVID-19 pandemic. First, changes in HRM practices in times of crisis (e.g. virtual recruitment, selection, and training) can lead to increased experiences of person-environment misfit among employees. At the same time, new or adapted HRM practices may help reduce such misfit experiences by meeting employees' needs for autonomy, competence, and relatedness in times of crisis (e.g. virtual socialization opportunities; see also Rudolph and Zacher, 2021a). Second, Carnevale and Hatak (2020) noted that some employees may be disproportionately affected by crises, such as employees with young children or family members with pre-existing illnesses during the COVID-19 pandemic. The researchers suggested that HRM should focus on providing these employees with increased job autonomy and informational support (regarding flexible work arrangement policies for all employees, see Obenauer, 2021). Third, they recommended installing relationship-oriented HRM systems (e.g. regular team meetings, network development, sponsoring social events) to support childless and single employees, who may suffer from increased feelings of loneliness and social exclusion during a crisis (see also Kniffin et al., 2021).

Finally, Butterick and Charlwood (2021) adopt a more critical perspective on the role of HRM in times of crisis. Specifically, they suggest that labor market inequalities exposed during the COVID-19 pandemic (e.g. job loss, loss of income, placement on government support schemes, precarious working conditions in "essential occupations") were in part caused by HRM theories (e.g. the flexible firm model) and practices based upon those theories that encourage, implement, and legitimize labor commodification. They argued that HRM researchers, educators, and practitioners should reflect on how their actions may have contributed to making "a bad situation worse" and on the ethical implications of certain HRM practices (e.g. flexible employment conditions). Butterick and Charlwood (2021) further suggest that HRM practitioners should challenge and change the structural forces in national institutions that drive labor commodification and commit to the promotion of human flourishing and avoiding harm in organizations (e.g. campaigns to improve job quality, job security, and worker voice).

Conclusion

The COVID-19 pandemic has highlighted the importance of studying employee experiences and behavior in times of crisis. The goal of this paper was to outline important theoretical, methodological, and practical considerations and recommendations in this regard. A multitude of theoretical approaches exist that may help to explain how crisis events lead to changes in employee experiences and behavior, and empirical studies can adopt various methodologies to test assumptions based on these theories or to develop new theory. These research efforts have important implications for effective HRM practices in times of crisis. We hope that this paper is useful for researchers who aim to develop conceptual models and design empirical studies to understand employee experiences and behavior in future crises, as well as for human resource managers who want to implement evidence-based practices.

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ORCID iDs

Hannes Zacher  <https://orcid.org/0000-0001-6336-2947>

Cort W Rudolph  <https://orcid.org/0000-0002-0536-9638>

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