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Article

Supporting Knowledge Workers' Health and Well-Being in the Post-Lockdown Era

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Abstract: The specific problem is that knowledge workers experience high levels of stress and burnout in their professional lives, a trend that increased due to the transition to remote work during the COVID-19 pandemic. This integrative literature review addresses this problem by answering the following research questions: (1) *How can working in the post-lockdown era allow greater well-being, job satisfaction, and job security to abide?*; and (2) *How can mental capital be increased in the 21st century to ensure maximum health and positive well-being in the future employment arena and on a global scale?* This review contributes to the literature on worker health and wellbeing, hybrid work arrangements, and knowledge workers' professional experiences. The findings suggest that knowledge workers can only thrive in a hybrid work environment if organizations take an empathetic approach to manage these workers and give them sufficient autonomy and flexibility in determining their work conditions, in addition to ample opportunities for social interaction and professional advancement.

Keywords: knowledge workers; mental health; well-being; post-lockdown era; literature review; hybrid work; mental capital; job satisfaction; job security



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1. Introduction

The beginning of the global COVID-19 pandemic triggered a wide range of measures to stop the spread of the COVID-19 virus, such as local and national lockdowns and the introduction of remote working policies (Vyas 2022). White-collar workers were among those who faced the most significant transition to remote work. Blue-collar workers in manual labor jobs or front-line workers such as healthcare workers could not complete their work duties remotely, so many went to their physical workplace with various pandemic measures in place (Vyas 2022; Gilles et al. 2021). In contrast, most white-collar workers transitioned from going to the office five days a week to working entirely from a home office setup (Vyas 2022). The change was most notable for knowledge workers engaged in computer-based office work, such as those working in information and technology, communications, and finances, where over 50% of employees transitioned to remote work during the pandemic (Lund et al. 2021).

While lockdown measures have receded in developed Western countries, white-collar workplaces have begun transitioning back to in-person work (Lund et al. 2021). During this transition, corporations across various industries have seen waves of employees resigning. In the United States, 4.53 million employees quit their jobs in November 2021, a record high from just over 3 million in 2001 (Cook 2021). Additionally, one survey conducted with employees from five countries revealed that 40% of employees were at least somewhat likely to leave their current job in the next 3–6 months. Of this share of employees, 41% were white-collar workers (De Smet et al. 2021). This phenomenon has been termed the “Great Resignation” or the “Great Attrition” by experts (De Smet et al. 2021; Henry 2021). Among the reasons that white-collar workers give for resigning include burnout, a lack of

a sense of meaningful work, the burden of caregiving responsibilities, a toxic work culture, and a desire for more autonomy and flexibility in work arrangements (De Smet et al. 2021; Henry 2021).

The specific problem that this literature review will address is that knowledge workers experienced high levels of stress and burnout before the pandemic, and this trend increased as a result of the transition to remote work during the lockdown time period of the pandemic (Camacho and Barrios 2022; McGovern 2021; Taser et al. 2022). Before the pandemic, knowledge workers experienced high job stressors, such as increasing role ambiguity, being continuously connected, and being expected to come to work even when ill, leading to voluntary and involuntary presenteeism (McGovern 2021). While working remotely during the lockdown period of the pandemic, knowledge workers experienced diminished work-life balance and boundaries between work and home (Vyas 2022).

These stressors were added to the unique lockdown stressors of having to homeschool children, care for elderly parents, and deal with decreased social interaction (Camacho and Barrios 2022). As the lockdown measures recede and knowledge workers experience the transition “back to the office,” many are resigning to seek greater work-life balance and more meaningful work. Resignations harm organizations in terms of the quality of work and bottom-line revenue (Cook 2021). Organizations that attempt to remedy these resignations with salary increases are not seeing a decrease in attrition (De Smet et al. 2021). In order to retain knowledge workers in the post-lockdown era, organizations need to work on building healthier workplaces that prioritize the well-being and mental capital of their workers. Nevertheless, there is a gap in the literature regarding how to increase knowledge workers’ wellbeing in workplaces where hybrid work arrangements will be the norm and workers’ personal values and goals have shifted since the lockdown era (Babapour Chafi et al. 2022; Bolisani et al. 2020; De Smet et al. 2021). This current literature review is based off a pre-print literature review by the lead author available at the *Social Science Research Network* repository.

This integrative literature review aims to address this problem by answering the following research questions:

RQ1: How can working in the post-lockdown era allow greater well-being, job satisfaction, and job security to abide?

RQ2: How can mental capital be increased in the 21st century to ensure maximum health and positive well-being in the future employment arena and on a global scale?

2. Background

Knowledge workers are defined as employees having “a high level of professional knowledge, education, or experience, and the creation, transfer, and practical use of knowledge are among the core tasks of their work” (Davenport 2005). Knowledge workers arose due to the growth of information exchange and transfer in the transition from the Industrial Age into the Information Age and the widespread infiltration of technology into every part of social and work life (Surawski 2019). Knowledge workers are employed in management, business, finance operations, computer information technology, engineering, and data science; most of their daily work is classified as computer-based office work (Lund et al. 2021).

Even in the pre-pandemic era, knowledge workers experienced high levels of stress and burnout, mainly due to technology-related stressors, which are job demands that arise from the specific nature of a particular technology (Taser et al. 2022). Knowledge workers particularly suffered from technostress, the stress associated with computer use such as anxiety, reduced satisfaction, and burnout (McGovern 2021). Since knowledge workers primarily perform computer-based work, they experience techno-overload, in which they complete greater amounts of work faster (Dewe and Cooper 2017). In the wake of the global economic recession, job insecurity forced knowledge workers to constantly work to achieve greater productivity (Nemteanu et al. 2021; Dospinescu and Dospinescu 2020). Many knowledge workers thus experienced voluntary and involuntary presenteeism, in

which they came to work even when ill, either voluntarily or because they were forced to do so by management (Karanika-Murray and Biron 2020).

With the outbreak of the COVID-19 pandemic, knowledge workers experienced the most significant transition to remote work, hybrid work, and work-from-home arrangements (Lund et al. 2021). The transition to remote work has brought positive and negative consequences for knowledge workers. Although some workers reported greater productivity and work-life balance when working remotely, others suffered from blurring boundaries between work and home (Babapour Chafi et al. 2022). Furthermore, the always-on culture of knowledge work continued in the home environment, where workers were expected to respond to messages, emails, and other forms of work-related correspondence at all hours of the day (Hurbean et al. 2022; Palumbo 2020). Some managers monitored workers' online activity through productivity tracking software (Camacho and Barrios 2022). Work-related stressors were added to caring for children in school remotely and for elderly parents or family members recovering from COVID-19 (Huang et al. 2021). Workers experienced these increased stressors alongside diminished job resources, such as a lack of social interaction with friends and colleagues and a lack of time spent at home away from work (Gabriel and Aguinis 2022).

When high levels of job stressors are paired with a lack of job resources, the effect of job-related stressors is increased (Gabriel and Aguinis 2022). The strain induced by stressors can result in burnout, a syndrome characterized by physical and emotional exhaustion, negative feelings toward work, and a lack of personal accomplishment (Maslach and Leiter 2016). Burnout diminishes individual, team, and organizational performance (Gabriel and Aguinis 2022). During the lockdown period of the pandemic, 71% of knowledge workers felt burned out, and 87% put in two extra hours a day; knowledge workers also averaged less than seven hours of sleep per night (Love 2021). This increase in burnout was predicted to cause a loss of productivity for companies in 2021 (Love 2021).

As nationwide lockdowns and other pandemic measures gradually receded, knowledge workers were still experiencing a gradual return to the office. Amidst the Great Resignation, workers quitting their jobs are at an all-time high in the US (Henry 2021). One study indicates that workers are searching for a greater sense of purpose, meaning, and belonging in their work, greater autonomy and flexibility in their work arrangements, and escape from toxic work cultures (De Smet et al. 2021). If organizations can build healthier workplaces, the result is engagement, the opposite of burnout. Engaged employees feel fulfilled, energetic, dedicated, and enthusiastic about their work, showing a state of mental resilience (Gabriel and Aguinis 2022). Engagement benefits not only individual employees but also organizations' overall productivity and profits (Gorgenyi-Hegyes et al. 2021). This review contributes to debates in the literature regarding employee retention, well-being, satisfaction, and autonomy in post-lockdown work environments.

3. Conceptual Framework

This literature review is framed by four key concepts: well-being, job satisfaction, job insecurity, and mental capital. These concepts were chosen due to their relevance to the research questions.

Well-being. Well-being is "a dynamic state in which the individual can develop their potential, work productively and creatively, build strong and positive relationships with others, and contribute to their community" (The Government Office for Science 2008). Well-being has been a prevalent topic during the pandemic, with research indicating that workers' overall well-being declined due to loneliness, increased job demands, and growing disengagement at work (Campbell and Gavett 2021). The research literature shows contradictory evidence regarding the impact of remote work on well-being, with some claiming that it enhances well-being and others claiming that it diminishes it (Babapour Chafi et al. 2022; Juchnowicz and Kinowska 2021).

Job Satisfaction. Job satisfaction is "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (Locke 1976, p. 1300). Five characteristics

determine job satisfaction: skill variety, autonomy, task significance, task identity, and task feedback (Costen 2012). Perceived workplace fairness and socialization can contribute to job satisfaction, whereas work-related stressors, such as loneliness and over-working, are related to decreased job satisfaction (Costen 2012). Interesting and fulfilling work is considered important for mental well-being and job satisfaction (The Government Office for Science 2008).

Job Insecurity. Job insecurity is defined as “the potential concern of individuals that they might lose their job. It is an experience that engenders stress, anxiety, fear, and other negative emotions” (Nemteanu et al. 2021, p. 66). Job insecurity is associated with an increase in employee turnover and a decrease in employees’ tenure at their place of work (Wang et al. 2021). The economic instability and recession caused by the pandemic have led to increased job loss and pay cuts across many industries, leading to job insecurity among workers (Wilson et al. 2020). Job insecurity can lead to counter-productive work behaviors, such as overworking and presenteeism, reinforcing negative well-being, and diminished productivity (McGovern 2021).

Mental Capital. Mental capital is defined as “the totality of an individual’s cognitive and emotional resources, including their cognitive capability, flexibility and efficiency of learning, emotional intelligence (e.g., empathy and social cognition), and resilience in the face of stress” (The Government Office for Science 2008, p. 45). An individual’s mental capital affects their well-being, behavior, and sense of social cohesion and inclusion (The Government Office for Science 2008). Experts have recommended that employers foster work environments that enhance an individual’s mental capital, thus ensuring better organizational performance and fewer costs with regard to presenteeism, absenteeism, and employee turnover (Azfar and Aranha 2020).

4. Research Method

An integrative literature review aims to develop a more thorough understanding of a topic or phenomenon by synthesizing knowledge from theoretical and empirical studies (Torraco 2016). A literature review allows a researcher to explore the future of an area of practice and contribute to developing concepts in a particular field (Broome 2000). Synthesizing the findings of such studies in an integrative literature review allows researchers to understand what is likely to remain constant and what will change in a field (Webster and Watson 2002). An effective literature review also offers implications for policy and practice in a particular field (Torraco 2016).

In this literature review, the data consists of scholarly, peer-reviewed research and industry reports relative to the research questions. Our inclusion criteria consisted of scholarly papers, grey literature, and industry reports related to the research questions published after the year 2015 and seminal literature published after 2000. Our search strategy consisted of finding representative literature via Google Scholar, the Google search engine, and the library databases of the authors’ institutions. The keywords and key phrases used in the literature search were *white-collar workers*, *knowledge workers*, *flexible work*, *post-covid work*, *mental capital and knowledge workers*, *knowledge workers and burnout*, and *Great Resignation and knowledge workers*. A total of 80 sources were gathered on the topic. Of the 80 sources, 24 were excluded due to irrelevance to the research questions, the publication date being outside the range chosen for this study, or the full text of the source being unavailable. Of the original 80 sources, 56 sources remained for analysis. We performed a content analysis of the entire text of each source to obtain the most relevant information regarding the research question. We present the results in the form of key themes and proceed with a critique of the extant literature, recommendations for policy, practice, and research, and conclusions.

5. Findings

Flexibility and Autonomy in Work Arrangements. The home environment was traditionally where workers could escape work-related stressors and enjoy non-work-

related activities (Vyas 2022). With the advent of remote work during the lockdown period of the pandemic, the boundaries between home and work blurred, with many employees working outside of traditional hours and work-related stressors intruding into home life (Palumbo 2020). Some studies indicate that remote work has certain benefits in that it allows some employees to adjust their work time to fit their personal life and family obligations and achieve greater work-life balance (Charalampous et al. 2019). Research also indicates that flexible work hours and remote work arrangements could help improve the workforce's well-being and reduce organizational turnover (Bontrager et al. 2021). Some studies have also suggested that workers are more productive when working remotely (Bolisani et al. 2020; Ipsen et al. 2021). One study showed that employees who work remotely had greater variability in their posture and heart rate, indicating relaxation (Widar et al. 2021).

The benefits of remote work are diminished when an employee is not given the autonomy to choose their hours and speed of work or when they work remotely and in an office. Many knowledge workers who worked remotely during the lockdown period of the pandemic were expected to be available to answer communications at all hours of the day (Charalampous et al. 2019). Managers sometimes even use intrusive software to track employees' online work activities (Camacho and Barrios 2022). Workers also felt increased demands to self-regulate to meet performance goals and the apprehension of potential job loss and employer disapproval, resulting in high rates of presenteeism, with few job resources to support them (McGovern 2021).

These increased demands are exacerbated by the process of *ephemeralization*, in which workers work at an increased rate and achieve more when working remotely than they would in an office (Evenstad 2018). Ephemeralization increases stress and burnout levels, reducing employee job satisfaction with remote work (Brivio et al. 2018; Evenstad 2018). These processes also damage work-life balance by causing work activities to leak into the worker's home life and relaxation time, thus increasing the time it takes workers to recover from work (Brivio et al. 2018). In a flexible work arrangement, effective communication, work-life balance, and autonomy are essential job resources to counter these unique job stressors (Gabriel and Aguinis 2022; Reisinger and Fetterer 2021).

With the transition back to the office, another area of tension for workers involves not having the autonomy to choose when to work remotely and when to work in an office. Some studies indicate that most employees prefer to work from home only some days of the week, with one survey showing that Americans prefer to work from home 2.5 days per week on average (Barrero et al. 2021). The survey also showed that more than 40% of U.S. employees would quit their jobs if management forced them to return to the office full-time (Barrero et al. 2021). Another survey showed that 30% of workers worldwide would quit if forced to return to the office full-time (Broom 2021). One study of workers in China saw a 22% increase in productivity rates when employees chose on their own whether to work from the office or at home (Bloom et al. 2015).

Social Support and Cohesion. The most widely-noted disadvantage of remote work arrangements is a lack of social interaction with colleagues and managers and social cohesion within the organization (Charalampous et al. 2019). The restrictions on socializing during the height of the lockdown period of the pandemic were unique, whereas, in pre-lockdown studies on remote work, workers regularly had the opportunity to meet colleagues if they wished (Babapour Chafi et al. 2022). Long-term remote work can lead to loneliness, isolation, and disengagement, leading to negative outcomes in tasks, team roles, and relational performance (Babapour Chafi et al. 2022).

High levels of technostress also exacerbate feelings of loneliness, whereas being able to interact with colleagues socially is a powerful job resource to counteract the many job demands of remote and hybrid work (Gabriel and Aguinis 2022). Social support and interpersonal relationships with coworkers also reduce employee presenteeism and emotional exhaustion, helping protect employees against workplace stressors (Baeriswyl et al. 2017). Workers will experience less technostress and more engagement if managers

support the close working together of coworkers (Shin et al. 2020). Regarding job insecurity, workers who work remotely tend to be concerned about their potential for advancement if they do not have the opportunity to regularly encounter upper management as they would in an office (Delany 2021). When working in teams, a lack of informal interactions with other employees reduces tacit knowledge and information transfer and thus inhibits creativity and innovation when working remotely (Delany 2021).

Flexible, hybrid work arrangements allow employees to interact with others face-to-face. Researchers predict that the future office will become a place for creative collaboration, building relationships with colleagues and managers, and building shared culture, purpose, and identity, rather than just a space for employees to work in (Babapour Chafi et al. 2022). Days at the office can be filled with specific group gatherings and targeted staff interactions, allowing employees to refresh friendships and swap information (Delany 2021). Other events can include meetings, client events, training, and socializing (Barrero et al. 2021). Having such days focused on socializing will also fulfill employees' need to feel that they belong in their organization (Babapour Chafi et al. 2022).

Management: Empathy, Compassion, and Coaching. One of the reasons often cited for causing the mass resignation of knowledge workers is a desire for more meaningful relationships with managers and colleagues (De Smet et al. 2021). In a world where hybrid work may be common, managers must adopt a different management style for this different work style (McGovern 2021). Whereas in the pre-COVID-19 era managers may have been promoted based on technical skills, one study of focus groups with senior business leaders, human resources directors, and workers indicated that managers are now expected to act as mentors and coaches to their employees (Delany 2021). Managers will likely have to be re-trained to adapt to the unique challenges and opportunities of managing remotely (Delany 2021). Organizations should also establish workshops for managers in social and interpersonal skills, which will enhance their mental capital; this will have a positive effect on their employees' well-being (The Government Office for Science 2008).

Supervisor trust and support enhance employees' work-life balance and, consequently, their health and well-being (McGovern 2021). Regarding absenteeism, one pre-pandemic study found that working under autocratic leadership was associated with an increase in employees' number of sick days, whereas inspirational leadership was associated with fewer sick days taken (Nyberg et al. 2008). Supportive leadership, such as managers being open, honest, fair, and helping employees resolve difficulties, has also been associated with less absenteeism and presenteeism, and thus fewer costs for the organization (Ruhle et al. 2020; Schmid et al. 2017). When workers have the expectation to perform without the necessary support or resources, as was the case for many knowledge workers during the lockdown period of the pandemic, job stressors, presenteeism, and burnout increase (McGovern 2021). Enabling a psychologically safe work environment can mitigate presenteeism, reduce technostress, and reduce burnout and other health-related disorders (McGovern 2021).

Managers must shift their focus from aggressive micromanaging to offering support, empathy, and compassion. Since the hybrid work environment is less structured than in-person work, managers must adopt an esoteric leadership style that gives employees more freedom (Varghese and Barber 2017). Regarding job insecurity, managers also need to represent individual employees' interests to senior management in cases where employees cannot do so (Delany 2021). Managers also need to shift the way they conduct employee performance assessments, as one case study shows that detailed performance evaluations that emphasize employee shortcomings do not help improve employee performance, nor do they reduce high turnover rates (Bregman and Jacobson 2021). Instead, managers need to express confidence in their employees, work together to understand their shortcomings, and carry out concrete plans to improve them (Gabriel and Aguinis 2022). Fostering a positive, collaborative environment leads to increases in productivity and a reduction in turnover (Cvenkel 2021).

6. Implementing Programs and Policies

Organizations must actively protect their employees' well-being in a world where flexible and hybrid work policies will be common. Organizations should support and train employees to navigate the unique challenges and opportunities of remote work and teach them coping skills to deal with the demands of remote work (Delany 2021). Organizations must also establish healthcare policies that protect workers' safety and the right to disconnect after work hours (Vyas 2022). Ensuring employee well-being is also beneficial to organizational performance. One U.K. government report recommends that organizations implement well-being indicators in their annual reports to benchmark their well-being rates for stakeholders (The Government Office for Science 2008). Such programs should also be economically assessed for their value (The Government Office for Science 2008).

Beyond the organizational level, governments also need to develop policies to support work-life balance for knowledge workers, especially concerning remote work and hybrid work. For example, employees in France, Spain, Italy, Ireland, Portugal, and the Philippines have the legal right not to respond to work-related demands outside of working hours (Trevelyan 2021). The European Union has supported "right to disconnect" laws that define work and rest periods and legally protect workers from having to respond to work emails or messages outside of working hours (European Observatory of Working 2021). However, the United States has no such laws (Secunda 2019). These laws would help lessen burnout and depression, which is the leading cause of disability worldwide, causing significant economic losses for nations and organizations (GBD 2017 Disease and Injury Incidence and Prevalence Collaborators 2018).

7. Critique of the Extant Literature

There are noted gaps and areas of contention in the research literature on knowledge workers concerning well-being, job satisfaction, job insecurity, and mental capital in the post-lockdown era. One area of tension is the interpretation of the statistics relating to the Great Resignation. For example, one source claims that although quit rates in the U.S. market were unusually high, there was no increase in quit rates in the United Kingdom (Wadsworth 2022). A different source claims that under 3% of the workforce in the U.S. is quitting and that this number only represents a small minority of workers (Lufkin n.d.).

Additionally, there are inherent methodological limitations to the existing studies of knowledge workers and their work lives during the lockdown period of the pandemic. One study, for example, notes that its results are not generalizable due to a limited sample and the cross-sectional nature of the research (Taser et al. 2022). Other studies note that there may be discrepancies between self-reported and other-reported behaviors in survey research (Camacho and Barrios 2022). There are also many mediating factors to take into account when analyzing workers' well-being during the lockdown period of the pandemic, such as fixed mindsets regarding the suitability for remote work (Howe and Menges 2021), workers' perceptions of the benefits of enforced remote work (Nelson et al. 2017), and workers' financial concerns (Wilson et al. 2020).

One overriding limitation in this field of research is the unique conditions of the lockdown period of the COVID-19 pandemic under which knowledge workers first experienced the transition to remote work. Research conducted on remote work during the lockdown period of the pandemic occurred during an unusual time when workers were forced to work from home suddenly and without adequate preparation, and quickly had minimal to no social contact with others outside of their home environment (Babapour Chafi et al. 2022; Camacho and Barrios 2022). Thus, it remains to be seen whether the conclusions drawn with regard to remote work and social isolation during the lockdown period of the pandemic will still apply in a post-lockdown context. The unique lockdown conditions of the pandemic meant that many workers also had the added stressors of helping their children with online schooling or caring for elderly or ill family members (Huang et al. 2021; Vyas 2022). More longitudinal studies are needed to verify the findings of these studies in a

post-lockdown environment and to explore the conditions of remote and hybrid work in the years following the end of the lockdown period of the pandemic (Taser et al. 2022).

Recommendations for Practice, Policy and Research. At the micro-level, it is recommended that individual workers adjust their work routines to fit the demands of hybrid work, where such freedom is possible. Workers should also leverage their available job resources and refine their coping skills to combat the unique stressors of hybrid work (Gabriel and Aguinis 2022). However, workers often have limited freedom to decide their hours or place of work, which is often determined by organizational policies and individual managers. Individual managers thus play an essential role in ensuring the health and well-being of their employees, although some research indicates that managers are not aware of the negative consequences that technostress has for knowledge workers (McGovern 2021). Managers should first become informed and consult evidence-based research regarding the harmful effects of technostress on workers' health. Managers should foster a supportive, flexible work environment and let go of micromanaging behaviors, which can drive employees to unhealthy and unsustainable behaviors (Camacho and Barrios 2022; McGovern 2021).

Organizations need to adjust their policies and culture to be more balanced and supportive of workers' health and well-being at the macro level. Flexible work policies should give employees the autonomy to choose when to work remotely and when to be in the office, with some required days dedicated to forms of social interaction (Reisinger and Fetterer 2021). Facilitating positive social interaction and social cohesion helps mitigate the stressors of remote and hybrid work (Gabriel and Aguinis 2022).

Organizations should also train managers in navigating remote employees' management and not bias them against remote employees when considering promotions or other forms of job advancement (Delany 2021). Organizations can also implement plans to ensure that remote employees are given equal opportunities for career development and advancement (Delany 2021). These can include holding hybrid meetings and other events for remote employees to interact with in-office employees and management, and requiring management to meet regularly with remote employees and offer them equal advancement and mentorship opportunities. Finally, organizations should implement strict policies against requiring employees to work or respond to correspondence outside of set working hours. Implementing such "right to disconnect" policies should be a priority for organizations and national and regional policymakers (Vyas 2022).

Future research can explore whether the recommendations given by experts and scholars regarding knowledge workers' well-being can prove effective in real-world contexts. For example, future research can examine whether organizational policies have a measurable impact on employee well-being (Camacho and Barrios 2022), in addition to the measurable effects of remote and hybrid work on organizational performance (Babapour Chafi et al. 2022). Future research can also examine the role of supervisor and co-worker support in mitigating the unique stressors of remote and hybrid work (Bontrager et al. 2021).

8. Conclusions

This integrative literature review aimed to provide data to answer two research questions. In answering the first research question, *How can working in the post-lockdown era allow greater well-being, job satisfaction, and job security to abide?*, this review posits that these variables can only exist in the post-lockdown era if organizations are willing to take knowledge workers' health and well-being concerns seriously. Greater well-being can be achieved if workers are not driven to overwork and compromise their health due to excessive job demands from their managers, supervisors, and organizations that do not consider the unique stressors of remote and hybrid work.

A more balanced, empathetic approach to managing remote and hybrid workers can also result in greater job satisfaction. Job satisfaction can also be increased by giving workers autonomy over when and how they work remotely and opportunities for social support from colleagues and managers. Managers and larger organizations are also responsible

for ensuring greater job security. Because employees worry about their prospects for job advancement when working remotely, managers should be trained to avoid bias against remote employees. Organizations should also provide ample opportunities for remote employees to interact with upper management and to ensure career development opportunities.

In answering the second research question, *How can mental capital be increased in the 21st century to ensure maximum health and positive well-being in the future employment arena and on a global scale?*, this review posits that workers' mental capital can be increased if organizations and nations adapt their policies to suit the new realities of post-lockdown work. Workers can increase their cognitive and emotional resources if they are subject to aggressive, outdated management styles and a lack of policies to protect workers' rights and well-being. Increasing workers' mental capital will naturally ensure greater well-being and fewer stress-related health consequences. On a global scale, policymakers need to protect workers' well-being through "right to disconnect" laws and hold organizations accountable for the well-being of their workforce. Only sustained, structural change to the world of work can create better health and well-being outcomes for individual workers, organizations, and nations at large.

This paper extends the previous literature on knowledge workers' health and well-being in remote and hybrid work contexts (i.e., Vyas 2022; Delany 2021; and Babapour Chafi et al. 2022). This paper contributes to the theoretical literature on worker well-being, job satisfaction, job insecurity, and mental capital by bringing these concepts together in one analysis of the literature within the historical context of the post-lockdown world of white-collar work. The findings and conclusions of this study are applicable to knowledge workers employed in businesses, consulting firms, universities, financial institutions, etc. The limitations of this study include the integrative literature review method, the specific concepts chosen for the conceptual framework, and the focus on white-collar knowledge workers. Future research can expand the findings of this study by utilizing empirical methods of research that deal directly with the population at hand, such as qualitative interviews or quantitative surveys. Future research can also utilize different conceptual frameworks and specific worker populations, such as white-collar creative workers, independent "gig" workers, or blue-collar workers.

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References

- Azfar, Mohd, and Rekha Aranha. 2020. Positive Organizational Behavior & Its Impact on Commitment of Employees at Workplace during the COVID-19 pandemic. Paper presented at the International E Conference on Adapting to the New Business Normal—The Way Ahead, Mysuru, India, December 3–4; Available online: https://www.sdmimd.ac.in/incon_cd_2020/papers/HR314.pdf (accessed on 1 March 2022).
- Babapour Chafi, Maral, Annemarie Hultberg, and Nina Bozic Yams. 2022. Post-pandemic Office Work: Perceived Challenges and Opportunities for a Sustainable Work Environment. *Sustainability* 14: 294. [CrossRef]
- Baeriswyl, Sophie, Andreas Krause, Achim Elfering, and Martial Berset. 2017. How workload and coworker support relate to emotional exhaustion: The mediating role of sickness presenteeism. *International Journal of Stress Management* 24: 52. [CrossRef]

- Barrero, Jose Maria, Nicholas Bloom, and Steven J. Davis. 2021. Don't Force People to Come Back to the Office Full Time. *Harvard Business Review*. August 24. Available online: <https://hbr.org/2021/08/dont-force-people-to-come-back-to-the-office-full-time> (accessed on 1 March 2022).
- Bloom, Nicholas, James Liang, John Roberts, and Zhichun Jenny Ying. 2015. Does Working from Home Work? Evidence from a Chinese Experiment. *The Quarterly Journal of Economics* 130: 165–218. [CrossRef]
- Bolisani, Ettore, Enrico Scarso, Christine Ipsen, Kathrin Kirchner, and John Paulin Hansen. 2020. Working from home during COVID-19 pandemic: Lessons learned and issues. *Management & Marketing. Challenges for the Knowledge Society* 15: 458–76. [CrossRef]
- Bontrager, Marvin, M. Suzanne Clinton, and Lee Tyner. 2021. Flexible work arrangements: A human resource development tool to reduce turnover. *Advances in Developing Human Resources* 23: 124–41. [CrossRef]
- Bregman, Peter, and Howie Jacobson. 2021. Feedback Isn't Enough to Help Your Employees Grow. *Harvard Business Review*, December 10. Available online: <https://hbr.org/2021/12/feedback-isnt-enough-to-help-your-employees-grow> (accessed on 1 March 2022).
- Brivio, Eleonora, Fulvio Gaudioso, Ilaria Vergine, Cassandra Rosa Mirizzi, Claudio Reina, Anna Stellari, and Carlo Galimberti. 2018. Preventing Technostress Through Positive Technology. *Frontiers in Psychology* 9: 2569. [CrossRef]
- Broom, Douglas. 2021. Home or Office? Survey Shows Opinions about Work after COVID-19. *World Economic Forum*. July 21. Available online: <https://www.weforum.org/agenda/2021/07/back-to-office-or-work-from-home-survey/> (accessed on 1 March 2022).
- Broome, Marion E. 2000. Integrative literature reviews for the development of concepts. In *Concept Development in Nursing: Foundations, Techniques and Applications*. Philadelphia: WB Saunders Company, pp. 231–50.
- Camacho, Sonia, and Andrés Barrios. 2022. Teleworking and technostress: Early consequences of a COVID-19 lockdown. *Cognition, Technology & Work* 24: 441–57. [CrossRef]
- Campbell, Macaulay, and Gretchen Gavett. 2021. What COVID-19 Has Done to Our Well-Being, in 12 Charts. *Harvard Business Review*. February 10. Available online: <https://hbr.org/2021/02/what-covid-19-has-done-to-our-well-being-in-12-charts#:~:text=Overwhelmingly%2C%20respondents%20reported%20mental%20health,and%20growing%20disengagement%20at%20work> (accessed on 1 March 2022).
- Charalampous, Maria, Christine A. Grant, Carlo Tramontano, and Evie Michailidis. 2019. Systematically reviewing remote e-workers' well-being at work: A multidimensional approach. *European Journal of Work and Organizational Psychology* 28: 51–73. [CrossRef]
- Cook, Ian. 2021. Who Is Driving the Great Resignation? *Harvard Business Review*. September 15. Available online: <https://hbr.org/2021/09/who-is-driving-the-great-resignation> (accessed on 1 March 2022).
- Costen, Wanda M. 2012. Job satisfaction. In *The Encyclopedia of Human Resource Management: Short Entries*. New York: John Wiley & Sons, Inc., pp. 292–95. [CrossRef]
- Cvenkel, Nicole. 2021. Work-Life Balance and Well-Being at Work: Employees' Perspective to Promote a Psychologically Healthy Workplace. In *The Palgrave Handbook of Corporate Social Responsibility*. Cham: Palgrave Macmillan, pp. 429–51. [CrossRef]
- Davenport, Thomas. H. 2005. *Thinking for a Living: How to Get Better Performances and Results from Knowledge Workers*. Boston: Harvard Business Press.
- De Smet, Aaron, Bonnie Dowling, Marino Mugayar-Baldocchi, and Bill Schaninger. 2021. How Companies Can Turn the Great Resignation into the Great Attraction | McKinsey. *McKinsey Quarterly*, September 8. Available online: <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/great-attrition-or-great-attraction-the-choice-is-yours> (accessed on 1 March 2022).
- Delany, Kevin. 2021. What challenges will organisations face transitioning for the first time to the new normal of remote working? *Human Resource Development International* 25: 642–50. [CrossRef]
- Dewe, Philip J., and Cary L. Cooper. 2017. *Work Stress and Coping: Forces of Change and Challenges*. Thousand Oaks: Sage.
- Dospinescu, Octavian, and Nicoleta Dospinescu. 2020. Workaholism in IT: An analysis of the influence factors. *Administrative Sciences* 10: 96. [CrossRef]
- European Observatory of Working. 2021. Right to Disconnect. Eurofound, December 1. Available online: <https://www.eurofound.europa.eu/observatories/eurwork/industrial-relations-dictionary/right-to-disconnect> (accessed on 1 March 2022).
- Evenstad, Solveig Beyza Narli. 2018. The virtuous circle of ephemeralization and the vicious circle of stress: A systemic perspective on ICT worker burnout. *Futures* 103: 61–72. [CrossRef]
- Gabriel, Kelly P., and Herman Aguinis. 2022. How to prevent and combat employee burnout and create healthier workplaces during crises and beyond. *Business Horizons* 65: 183–92. [CrossRef]
- GBD 2017 Disease and Injury Incidence and Prevalence Collaborators. 2018. Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: A systematic analysis for the Global Burden of Disease Study 2017. *Lancet (London, England)* 392: 1789–858. [CrossRef]
- Gilles, Ingrid, Cédric Mabire, Margaux Perriraz, and Isabelle Peytremann-Bridevaux. 2021. Workplace well-being and intent to stay by health care workers reassigned during the first COVID-19 wave: Results of a Swiss survey. *International Journal of Environmental Research and Public Health* 18: 8976. [CrossRef]
- Gorgenyi-Hegyes, Eva, Robert Jeyakumar Nathan, and Maria Fekete-Farkas. 2021. Workplace health promotion, employee wellbeing and loyalty during COVID-19 pandemic—Large scale empirical evidence from Hungary. *Economies* 9: 55. [CrossRef]
- Henry, Patrick. 2021. Explainer: What's driving 'the Great Resignation'? *World Economic Forum*, November 19. Available online: <https://www.weforum.org/agenda/2021/11/great-resignation-career-change-mental-health-covid/> (accessed on 1 March 2022).

- Howe, Lauren C., and Jochen I. Menges. 2021. Remote work mindsets predict emotions and productivity in home office: A longitudinal study of knowledge workers during the COVID-19 pandemic. *Human–Computer Interaction* 37: 481–507. [CrossRef]
- Huang, Jess, Alexis Krivkovich, Ishanaa Rambachan, and Yee Lareina. 2021. For Mothers in the Workplace, a Year (and Counting) Like No Other. McKinsey & Company. Available online: <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/for-mothers-in-the-workplace-a-year-and-counting-like-no-other> (accessed on 1 March 2022).
- Hurbean, Luminita, Octavian Dospinescu, Valentin Munteanu, and Doina Danaiaata. 2022. Effects of instant messaging related technostress on work performance and well-being. *Electronics* 11: 2535. [CrossRef]
- Ipsen, Christine, Marc van Veldhoven, Kathrin Kirchner, and John Paulin Hansen. 2021. Six Key Advantages and Disadvantages of Working from Home in Europe during COVID-19. *International Journal of Environmental Research and Public Health* 18: 1826. [CrossRef]
- Juchnowicz, Marta, and Hanna Kinowska. 2021. Employee well-being and digital work during the COVID-19 pandemic. *Information* 12: 293. [CrossRef]
- Karanika-Murray, Maria, and Caroline Biron. 2020. The health-performance framework of presenteeism: Towards understanding an adaptive behaviour. *Human Relations* 73: 242–61. [CrossRef]
- Locke, Edwin A. 1976. The nature and causes of job satisfaction. In *Handbook of Industrial and Organizational Psychology*. Skokie: Rand McNally College Pub. Co.
- Love, Alysha. 2021. The Future of Work: How to Thrive in the Year Ahead. *New York Stock Exchange*. August 18. Available online: <https://www.nyse.com/article/the-future-of-work-how-to-thrive-in-the-year-ahead> (accessed on 1 March 2022).
- Lufkin, Bryan. n.d. What We’re Getting Wrong about the “Great Resignation”. Available online: <https://www.bbc.com/worklife/article/20211028-what-were-getting-wrong-about-the-great-resignation> (accessed on 9 March 2022).
- Lund, Susan, Anu Madgavkar, James Manyika, Sven Smit, Kweilin Ellingrud, Mary Meaney, and Olivia Robinson. 2021. The Future of Work after COVID-19. McKinsey Global Institute. Available online: <https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-after-covid-19> (accessed on 1 March 2022).
- Maslach, Christina, and Michael P. Leiter. 2016. Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry* 15: 103–11. [CrossRef] [PubMed]
- McGovern, Teresa Himes. 2021. Knowledge Workers’ Daily Experiences with Technostress and Presenteeism: A Single Case Study. Ph.D. thesis, Walden University, Minneapolis, MN, USA.
- Nelson, Sarah Beth, Mohammad Hossein Jarrahi, and Leslie Thomson. 2017. Mobility of knowledge work and affordances of digital technologies. *International Journal of Information Management* 37: 54–62. [CrossRef]
- Nemteanu, Marcela-Sefora, Vasile Dinu, and Dan-Cristina Dabija. 2021. Job insecurity, job instability, and job satisfaction in the context of the COVID-19 pandemic. *J. Competitiveness* 13: 65–82. [CrossRef]
- Nyberg, Anna, Hugo Westerlund, Linda L. Magnusson Hanson, and Töres Theorell. 2008. Managerial leadership is associated with self-reported sickness absence and sickness presenteeism among Swedish men and women. *Scandinavian Journal of Public Health* 36: 803–11. [CrossRef] [PubMed]
- Palumbo, Rocco. 2020. Let me go to the office! An investigation into the side effects of working from home on work-life balance. *International Journal of Public Sector Management* 33: 771–90. [CrossRef]
- Reisinger, Holger, and Dane Fetterer. 2021. Forget Flexibility. *Your Employees Want Autonomy*. *Harvard Business Review*. October 29. Available online: <https://hbr.org/2021/10/forget-flexibility-your-employees-want-autonomy> (accessed on 1 March 2022).
- Ruhle, Sascha A., Heiko Breitsohl, Emmanuel Aboagye, Vishwanath Baba, Caroline Biron, Catarina Correia Leal, Carolin Dietz, Aristides Isidoro Ferreira, Joachim Gerich, and Gary Johns. 2020. “To work, or not to work, that is the question”—Recent trends and avenues for research on presenteeism. *European Journal of Work and Organizational Psychology* 29: 344–63. [CrossRef]
- Schmid, Johannes Albert, Marc Nicolas Jarczok, Diana Sonntag, Raphael Manfred Herr, Joachim Ernst Fischer, and Burkhard Schmidt. 2017. Associations between supportive leadership behavior and the costs of absenteeism and presenteeism: An epidemiological and economic approach. *Journal of Occupational and Environmental Medicine* 59: 141–47. [CrossRef]
- Secunda, Paul M. 2019. The Employee Right to Disconnect. *Notre Dame Journal of International & Comparative Law* 9: 3. Available online: <https://scholarship.law.nd.edu/ndjicl/vol9/iss1/3> (accessed on 1 March 2022).
- Shin, Yuhung, Won-Moo Hur, Kyungdo Park, and Hansol Hwang. 2020. How managers’ job crafting reduces turnover intention: The mediating roles of role ambiguity and emotional exhaustion. *International Journal of Environmental Research and Public Health* 17: 3972. [CrossRef]
- Surawski, Bartosz. 2019. Who is a “knowledge worker”—clarifying the meaning of the term through comparison with synonymous and associated terms. *Management* 23: 105–33. [CrossRef]
- Taser, Didem, Esra Aydin, Alev Ozer Torgaloz, and Yasin Rofcanin. 2022. An examination of remote e-working and flow experience: The role of technostress and loneliness. *Computers in Human Behavior* 127: 107020. [CrossRef]
- The Government Office for Science. 2008. *Mental Capital and Well-Being: Making the Most of Ourselves in the 21st Century: (592742011-001) [Data Set]*. London: The Government Office for Science. [CrossRef]
- Torraco, Richard J. 2016. Writing integrative literature reviews: Using the past and present to explore the future. *Human Resource Development Review* 15: 404–28. [CrossRef]
- Trevelyan, Lucy. 2021. Employment: ‘Right to Disconnect’ Laws Proliferate during Pandemic. December 8. Available online: <https://www.ibanet.org/Employment-right-to-disconnect-laws-proliferate-during-pandemic> (accessed on 1 March 2022).

- Varghese, Levena, and Larissa K. Barber. 2017. A preliminary study exploring moderating effects of role stressors on the relationship between Big Five personality traits and workplace cyberloafing. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace* 11: 4. [CrossRef]
- Vyas, Lina. 2022. "New normal" at work in a post-COVID world: Work-life balance and labor markets. *Policy and Society* 41: 155–67. [CrossRef]
- Wadsworth, Jonathan. 2022. Are We Really Witnessing a 'Great Resignation'? *Economics Observatory*. February 8. Available online: <https://www.economicsobservatory.com/are-we-really-witnessing-a-great-resignation> (accessed on 1 March 2022).
- Wang, Yong Ming, Waqar Ahmad, Muhammed Arshad, Hong Li Yin, Bilal Ahmad, and Zulfiqar Ali. 2021. Impact of coordination, psychological safety, and job security on employees' performance: The moderating role of coercive pressure. *Sustainability* 13: 3175. [CrossRef]
- Webster, Jane, and Richard T. Watson. 2002. Analyzing the past to prepare for the future: Writing a literature review. *MIS Quarterly* 26: xiii–xxiii. Available online: <https://www.jstor.org/stable/4132319> (accessed on 1 March 2022).
- Widar, Linda, Birgitta Wiitavaara, Eva Boman, and Marina Heiden. 2021. Psychophysiological Reactivity, Postures and Movements among Academic Staff: A Comparison between Teleworking Days and Office Days. *International Journal of Environmental Research and Public Health* 18: 9537. [CrossRef]
- Wilson, Jenna M., Jerin Lee, Holly N. Fitzgerald, Benjamin Oosterhoff, Baris Sevi, and Natalie J. Shook. 2020. Job insecurity and financial concern during the COVID-19 pandemic are associated with worse mental health. *Journal of Occupational and Environmental Medicine* 62: 686–91. [CrossRef] [PubMed]

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