

St. Catherine University

**SOPHIA**

---

Graduate Occupational Therapy Research and  
Projects

Occupational Therapy

---

12-2022

## **Work Performance and Participation of Individuals During the COVID- 19 Pandemic: An Evidence-Based Practice Project**

McKenzie Bohlig

Maggie Buechler

Kinsale Morrow

Sydney Sirek

Susan Strawhacker

*See next page for additional authors*

Follow this and additional works at: [https://sophia.stkate.edu/ot\\_grad](https://sophia.stkate.edu/ot_grad)



Part of the [Occupational Therapy Commons](#)

---

---

**Author**

McKenzie Bohlig, Maggie Buechler, Kinsale Morrow, Sydney Sirek, Susan Strawhacker, Alison Tokkesdal,  
and Hannah Zuengler

# Work Performance and Participation of Individuals During the COVID-19 Pandemic: An Evidence-Based Practice Project

McKenzie Bohlig, Maggie Buechler, Kinsale Morrow, Sydney Sirek, Susan Strawhacker, Alison Tokkesdal, Hannah Zuengler

Faculty Advisor: Teresa C. Wickboldt, OTD, OTR/L

St. Catherine University

EBP Project completed in partial fulfillment of the requirements  
for the Evidence-Based Practice Course  
in the Graduate Occupational Therapy Programs

Fall, 2022

Recommended APA citation:

Bohlig, M.G., Buechler, M.E., Morrow, K.S., Sirek, S.M., Strawhacker, S.L., Tokkesdal, A.R., Zuengler, H.G., & Wickboldt, T.C. (2022). *Work Performance and Participation of Individuals During the COVID-19 Pandemic: An evidence-based practice project*. Retrieved from <https://sophia.stkate.edu/>

Keywords: work performance, work participation, burnout, work from home, COVID, health professionals, occupational therapy

**Table of Contents**

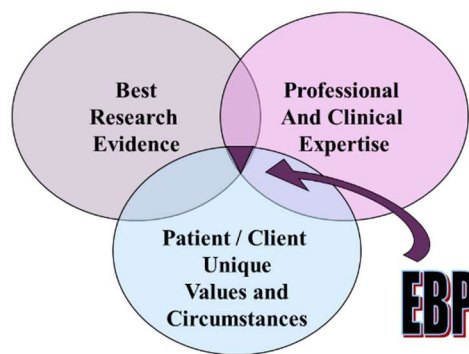
<b>Introduction.....</b>	<b>3</b>
Evidence Based Practice .....	3
The EBP Project .....	3
The EBP Process .....	3
Six EBP Projects: Coronavirus Disease 2019 (COVID-19) and Occupational Therapy Research, Practice, and Education .....	4
Appraisals of Best Evidence, Themes, and Recommendations .....	6
References .....	7
<b>EBP Question .....</b>	<b>8</b>
<b>Professional Presentation .....</b>	<b>9</b>
<b>Executive Summary .....</b>	<b>18</b>
Theme 1: The Impact of Working from Home .....	18
Theme 2: Mental Health Symptoms in Workers.....	20
Theme 3: Factors Leading to Worker Burnout .....	21
Theme 4: Changes in Work Performance .....	23
<b>Summary and Implications for Practice.....</b>	<b>25</b>
Take Home Message .....	25
Findings.....	25
Strengths.....	27
Implications and Recommendations .....	28
Future Considerations.....	28
Conclusion.....	29
<b>References.....</b>	<b>30</b>

## Introduction

### Evidence Based Practice

Evidence based practice is defined as the integration of knowledge from professional and clinical expertise, patient/client unique values and circumstances, and best research evidence (Straus, Richardson, Glasziou, & Haynes, 2005). The EBP courses in the St. Catherine University occupational therapy programs emphasizes skill building in finding, analyzing, and synthesizing research.

### A definition of Evidence-Based Practice (EBP)



(Straus, Richardson, Glasziou & Haynes, 2005)



### The EBP Project

Occupational therapy graduate students at St. Catherine University complete an EBP project in partial fulfillment of the requirements for a course on Evidence-Based Practice.

### The EBP Process

- Begins with a practice dilemma
- Dilemma is framed as an EBP question and PICO  
P (population/problem) I (intervention) C (comparison group) O (outcome(s) of interest)
- Background learning
- Search for the best evidence
- Initial appraisal and critical appraisal of the evidence
- Summary of themes from the evidence
- Recommendations for practice
- Next steps – implementation in practice

## **Six EBP Projects: Coronavirus Disease 2019 (COVID-19) and Occupational Therapy Research, Practice, and Education**

1. Experiences and perspectives of occupational therapy practitioners and other health professionals who provided care and services during COVID-19
2. Lived experiences and perspectives of occupational therapy and other health profession students who had educational changes because of COVID-19
3. Experiences and perspectives of individuals regarding their performance and participation during COVID-19
4. Characteristics of, effectiveness of and satisfaction with virtual, telehealth and technology-based interventions provided by occupational therapy and other health professionals to clients during COVID-19
5. Characteristics of effective virtual and technology-based learning activities provided to occupational therapy and other health profession students during COVID-19.
6. Client factors, performance, and participation characteristics of individuals with long COVID-19

### ***EBP Cases: COVID-19 and Occupational Therapy Practice, Education, and Research***

COVID-19 was chosen as the focus for these projects because of the extraordinary changes in occupational therapy practice and education from 2020 to 2022. There is growing interest in understanding how COVID-19 influenced the lives of individuals with the condition, students preparing to enter the occupational therapy profession, and interventions provided in occupational therapy practice. Because of the recency of the COVID-19 pandemic and limited published research, interprofessional studies were also examined related to each EBP question.

An EBP project always begins with background learning on definitions and key characteristics. The Centers for Disease Control and Prevention (CDC) provided background information on the disease related to the history, variants, transmission, risk factors, and variants (2021). The virus, SARS-CoV-2, was discovered in Wuhan, China around December, 2019 and caused the disease, Coronavirus Disease 2019 (COVID-19). The virus was very contagious and COVID-19 was associated with severe respiratory symptoms for many people. Individuals with certain medical conditions and older adults were at higher risk of severe illness and death from COVID-19.

Many occupational therapy organizations provided general resources on COVID-19. For example, the American Occupational Therapy Association (AOTA) published practice decision guides and case examples for outpatient, inpatient, telehealth and home health settings (n.d.). The Accreditation Council on Occupational Therapy Education (ACOTE) provided guidance to educational programs regarding distance education and allowed broad flexibility to support completion of fieldwork requirements (n.d.). The National Board for Certification in Occupational Therapy (NBCOT) provided regular new items to summarize how they were monitoring government guidelines for test centers (n.d.). The World Federation of Occupational Therapists (WFOT) provided information, resources, and an online forum for the global community of occupational therapy professionals (2022).

Our understanding of COVID-19 and its influence on occupational therapy practice and education is still in the early stages. In occupational therapy education, academic courses and fieldwork experiences were altered to minimize in-person requirements and adjust to quickly changing circumstances in clinical settings. In practice, occupational therapy professionals provided services using new or modified approaches and were recruited to serve in expanded capacities to meet growing needs. There were also growing concerns regarding long COVID or post-COVID conditions as well as the mental health of health profession students and practitioners. The findings from recent research now adds depth to our understanding of the characteristics, outcomes, and implications of these far-reaching changes due to COVID-19. These EBP projects will serve to summarize the evidence and lessons learned from COVID-19.

## Appraisals of Best Evidence, Themes, and Recommendations

After searching and finding evidence available from library databases and alternative sources, students conducted an initial appraisal to evaluate the quality and relevance of the evidence and select the best research for further review. Then they conducted critical appraisals of the best formal reviews of primary research (e.g., systematic reviews, meta-analyses) and/or primary/original research studies. One of the steps in the critical appraisal process is to evaluate the strength or level of the research design and the types of conclusions that are possible from each design.

### *Initial Appraisal*

- Quality of the evidence
  - type of evidence and research design
  - investigator qualifications and journal/publication/website
  - journal/publication/website
- Relevance of the evidence

### *Critical Appraisal*

- Appraisal of methods, results, and implications
- Classification of type of research study
  - Reviews of primary research (e.g., systematic reviews, meta-analyses)
  - Qualitative studies
  - Psychometric studies
  - Primary quantitative research studies
    - Level 1: randomized controlled trials
    - Level 2: two groups, nonrandomized/cohort and case control
    - Level 3: nonrandomized, pretest/posttest and cross-sectional
    - Level 4: single subject
    - Level 5: case report

After completing initial and critical appraisals, themes are summarized related to the EBP question and other findings that emerged from the evidence. Recommendations for practice and reflection on participating in an EBP project are identified in the conclusions.



## References

- American Occupational Therapy Association. (n.d.). Occupational therapy in the age of coronavirus (COVID-19). <https://www.aota.org/practice/clinical-topics/covid-19>
- Accreditation Council on Occupational Therapy Education. (2016). C standards FAQ. <https://acoteonline.org/frequently-asked-questions/>
- Centers for Disease Control and Prevention. (2021). Basics of COVID-19. <https://www.cdc.gov/coronavirus/2019-ncov/your-health/about-covid-19/basics-covid-19.html>
- Morris, Z. S., Wooding, S., & Grant, J. (2011). The answer is 17 years, what is the question: understanding time lags in translational research. *Journal of the Royal Society of Medicine*, 104(12), 510-520. <https://doi.org/10.1258/jrsm.2011.110180>
- National Board for Certification in Occupational Therapy. (n.d.). News. <https://www.nbcot.org/news-events/news>
- Straus, S. E., Richardson, W. S., Glasziou, P., & Haynes, R. B. (2005). How to practice and teach EBM. Evidence-Based Medicine. Third edition. Elsevier, 13-29.
- World Federation of Occupational Therapists. (2022). COVID-19 pandemic information and resources. <https://wfot.org/covid-19-information-and-resources-for-occupational-therapists>

**EBP Question**

What are the experiences and perspectives of individuals regarding their performance and participation during COVID-19 in relation to the workplace?

## Professional Presentation

Slide 1

### Work Performance and Participation of Individuals During the COVID-19 Pandemic

McKenzie Bohlig, Maggie Buechler,  
Sally Morrow, Sydney Sirek, Susan  
Strawhacker, Ali Tokkesdal, Hannah  
Zuengler

Slide 2

### EBP Question

You are an occupational therapy consultant to the human resources department of a work setting. They share anecdotes of employee stories of how COVID-19 has impacted their personal and work life. They want to adjust their employee assistance programming to meet the changing needs of their workforce. You want a broad understanding of the impact of the pandemic on workers and their families.

What are the experiences and perspectives of **individuals** regarding their performance and participation during COVID-19 in relation to the workplace?

Slide 3

### Key Terms Defined

**Organizational support:** the extent to which employees feel supported by their employers

**Employee assistance program (EAP):** "Employer sponsored benefit designed to help employees resolve acute but modifiable behavioral health and personal life issues" (Attridge, 2022).

**Workers:** workers at large, across a variety of industries, unless otherwise specified

**Psychological distress:** non-specific symptoms of stress, anxiety, and depression

## Slide 4

## Examples of Evidence Resources

**Governmental and Major Foundations**

- Centers for Disease Control and Prevention
- U.S. Department of Health and Human Services
- Minnesota COVID-19 Response

**OT Specific Resources**

- American Occupational Therapy Association
- American Journal of Occupational Therapy
- Canadian Association of Occupational Therapy
- World Federation of Occupational Therapy

## Slide 5

## Examples of Evidence Resources

**Interprofessional Journals, Databases, Organizations**

- PsychInfo & PsychArticles
- CINAHL Complete
- MedLine/PubMed
  - International Journal of Environmental Research and Public Health

## Slide 6

## Background Learning

- COVID-19 was a major public health threat that led to mental distress and a decrease in mental health among many workers (Ganesan et al., 2021; Pedrosa et al., 2020; Serafini et al., 2020).
- Rates of employee burnout increased during COVID-19. There are many coping strategies that could be put in place to prevent burnout (Mockaitis et al., 2022; Gregory, 2020; Reilly et al., 2021).
- COVID-19 has led to a change in the delivery of services across the workforce (Powers Durette, 2020).
- Many workplaces have offered programs that address pandemic-related concerns in the workplace during the pandemic, including employee assistance programs (Hoel et al., 2021; Sasaki et al., 2020; Veldsman & van Aarde, 2021).

## Slide 7

### Examples of Search Process

**Databases Used**

- PubMed
- Google Scholar
- CINAHL

**Most helpful search strategies**

- Citation or author tracking
- Divided databases between group members
- Watched tutorials from the St. Kate's Library Website

## Slide 8

### Examples of Search Process

**Most helpful keywords**

- Burnout
- COVID-19
- Employees
- Lived experience
- Resilience
- Well-being
- Work from Home
- Workplace

## Slide 9

### Initial Appraisal of Best Evidence

- Primary Research Studies
  - 26 articles
- Reviews of Primary Research
  - 6 articles
- Conceptual/Theoretical Articles
  - 3 articles

Slide 10

**Overview of Critical Appraisals  
of Best Evidence**

**Primary Research**

- Working in lockdown: The relationship between COVID-19 induced work stressors, job performance, distress, and life satisfaction (Kumar et al., 2021)
- Burnout and compassion satisfaction: Survey findings of healthcare employee wellness during COVID-19 pandemic using ProQOL (Dwyer et al., 2021)
- Reflections on the lived experience of working with limited personal protective equipment during the COVID-19 crisis (Iheduru-Anderson, 2021)
- COVID-19 pandemic disruptions to working lives: A multilevel examination of impacts across career stages (Mockaitis et al., 2022)
- Adapting to change: How has COVID-19 affected people’s work and personal goals? (Vowels et al., 2022)

Slide 11

**Overview of Critical Appraisals  
of Best Evidence**

**Reviews of Primary Research**

- Consequences of COVID-19 on employees in remote working: Challenges, risks and opportunities an evidence-based literature review (De Vincenzi et al., 2022)
- COVID-19-related mental health effects in the workplace: A narrative review (Giorgi et al., 2020)

Slide 12

**Critical Appraisal 1, 2, and 3:**

**Working in lockdown: The relationship between COVID-19 induced work stressors, job performance, distress, and life satisfaction** (Kumar et al., 2021)

- What stressors impacted job performance during the COVID-19 pandemic?
- Distress was the most significant stressor impacting job performance during the COVID-19 lockdown. Predictors of distress during the pandemic are role overload, family distraction, lifestyle choices, and occupational discomfort.

**Consequences of COVID-19 on employees in remote working: Challenges, risks and opportunities an evidence-based literature review** (De Vincenzi et al., 2022)

- What challenges and opportunities have individuals who have switched to remote working due to COVID-19 faced and how has their performance and well-being been affected?
- When faced with the new challenges and opportunities of working remotely during the COVID-19 pandemic, many employees find relief through programs offered by their employers, thus promoting their personal well-being and work performance.

**Burnout and compassion satisfaction: Survey findings of healthcare employee wellness during COVID-19 pandemic using ProQOL** (Dwyer et al., 2021)

- What factors increased stress in workers during the COVID-19 pandemic?
- Health care workers identified 5 areas of stress made worse by the COVID-19 pandemic. These areas of stress were both work-related and non-work-related. Based on these stressors, organizational support is recommended for employees.

## Slide 13

### Critical Appraisal 4 and 5:

Reflections on the lived experience of working with limited personal protective equipment during the COVID-19 crisis (Iheduru-Anderson, 2021)

- How did having limited PPE affect the lived experiences of nurses working during the COVID-19 pandemic?
- The experiences and perspectives of nurses working during the COVID-19 pandemic were summarized into five themes. Based on these themes, mental health services in the workplace are recommended for employees.

COVID-19-related mental health effects in the workplace: A narrative review (Giorgi et al., 2020)

- Do healthcare workers during COVID-19 experience psychological problems affecting their performance and participation?
- Workers in contact with the public during COVID-19 are at higher risk for mental health symptoms. Therefore, a change of environment, improved cleanliness, an increase in PPE supply, and implementation of resilience training are suggested.

## Slide 14

### Critical Appraisal 6 and 7:

COVID-19 pandemic disruptions to working lives: A multilevel examination of impacts across career stages (Mockaitis et al., 2022)

- What are the implications of COVID-19 on workers stress levels, job satisfaction, exhaustion, and burnout at different stages of their career?
- The COVID-19 pandemic led to a big shift in all workers lives and impacted individuals differently depending on what stage of their career they were at.

Adapting to change: How has COVID-19 affected people's work and personal goals? (Vowels et al., 2022)

- How did individuals' work goals change throughout the COVID-19 lockdown, and what can employers do to mitigate impacts due to workplace changes?
- During the COVID-19 lockdown, there were major shifts in workplace modality, requiring workers to adapt their goals to the new environment.

## Slide 15

### Theme 1: The Impact of Working From Home

Working from home during the COVID-19 pandemic elicited drastic changes in work-family conflict and well-being among workers across career fields.

- Many workers experienced altered well-being upon working in their new home environments (De Vincenzi et al., 2022; Lunde et al., 2022; Tedone, 2022)
- Working from home is associated with an increase in work-family conflict (Barriga Medina et al., 2021; Costa et al., 2022; De Vincenzi et al., 2022; Kumar et al., 2021)

## Slide 16

### Theme 2: Mental Health Symptoms in Workers

Workers across fields experienced an increase in symptoms of depression, anxiety, psychological distress during the COVID-19 pandemic.

- The mental health symptom of depression was experienced by a variety of individuals across the workforce (Doo & Choi, 2022; Giorgi et al., 2020; Hamouche, 2020)
- The mental health symptom of anxiety was experienced by many workers during the COVID-19 pandemic (Baskin et al., 2021; Finstad et al., 2021; Giorgi et al., 2020; Kumar et al., 2021)
- Psychological distress was experienced across the workforce during the COVID-19 pandemic (Giorgi et al., 2020; Hamouche, 2020; Kumar et al., 2021; Tejero et al., 2021; Zhu et al., 2022)

## Slide 17

### Theme 3: Factors Leading to Worker Burnout

Higher levels of burnout were associated with a lack PPE, demands of career stage, and resilience.

- A lack of personal protective equipment (PPE) is associated with employee burnout (Giorgi et al., 2020; Iheduru-Anderson, 2021)
- The stage one is at in their career and the level of pressure in one's job can be an indicator of burnout (Lam et al., 2022; Mockaitis et al., 2022; Stefanitou et al., 2022)
- Many studies reported that greater resilience in workers seemed to decrease the likelihood of burnout (Baskin & Bartlett, 2021; Doo and Choi, 2022; Peinado & Anderson, 2020)

## Slide 18

### Theme 4: Changes in Work Performance

COVID-19 highlighted work-related and non-work-related stressors as well as facilitators to work performance, which brought to light the need for organizational support in the workplace.

- Work-related stressors included role overload, occupational discomfort, increased distress levels, and fear of COVID-19 (Kumar et al., 2021; Yu et al.)
- Non-work-related stressors were identified as; childcare, housing, concerns about financial stability, impact on personal health, family distraction, mental health, and social concerns (Dwyer et al., 2021; Kumar et al., 2021; Yu et al., 2021)
- Resilience, coping strategies, and compassion satisfaction were identified as key facilitators to work performance (Doo and Choi, 2022; Finstad et al., 2021)
- Organizational support was identified as an important factor in improving employees' work life (Doo and Choi, 2022; Finstad et al., 2021; Stefanitou et al., 2022)



Slide 19

### Recommendations for Employers

- Organizations and businesses should develop guidance and training programs on how to adapt to new working conditions in future workplace disruptions
- Employers should maintain open communication with their employees in order to provide the needed support and modify programs to meet the changing needs of the workers

Slide 20

### Recommendations for the Role of OT

- Occupational therapists should collaborate with human resource departments when developing EAPs to provide organizational support for workers
- Occupational therapists should advocate for incorporation of mental health practices within the workplace

Slide 21

### Summary and Reflection

- The EBP process allowed us to improve upon our research analysis skills and work cohesively towards a shared product
- Highlights the importance of addressing non-work-related stressors in the workplace
- Organizational support is a key factor for increasing mental health and decreasing burnout in workers
- Future research aimed at examining how organizational support is best provided and what type of support is most effective
- Continuing research on the impact of COVID-19 on workers as the pandemic evolves

Slide 22

Questions?

Slide 23

References

Awada, M., Lucas, G., Beceik-Gerber, B., & Roll, S. (2021). Working from home during the COVID-19 pandemic: Impact on office worker productivity and work experience. *IOS Press*, 69(4), 1171–1189. <https://doi.org/10.3233/978-1-60891-210-04>

Attridge, M. (2022). Profile of small employers in the United States and the importance of employee assistance programs during the COVID-19 pandemic. *American Journal of Health Promotion*, 26(7), 1229–1236. <https://doi.org/10.1177/089011712211124888>

Bakker, A. B., & Van Wingerden, J. (2021). Rumination about COVID-19 and employee well-being: The role of playful work design. *Canadian Psychology/Psychologie Canadienne*, 62(1), 73–79. <https://doi.org/10.1037/cap0000262>

Barbour, N., Menon, N., & Manning, F. (2021). A statistical assessment of work-from-home participation during different stages of the COVID-19 pandemic. *Transportation Research Interdisciplinary Perspectives*, 11, 100441. <https://doi.org/10.1016/j.trp.2021.100441>

Barriga Medina, H. R., Campoverde Aguirre, R., Coello-Montecito, O., Ochoa Pacheco, P., & Paredes-Aguirre, M. I. (2021). The influence of work-family conflict on burnout during the COVID-19 pandemic: The effect of teleworking overload. *International Journal of Environmental Research and Public Health*, 18(19), 10302. <https://doi.org/10.3390/ijerph181910302>

Baskin, R. G., & Bartlett, B. (2021). Healthcare worker resilience during the COVID-19 pandemic: An integrative review. *Journal of Nursing Management*, 29(8), 2329–2342. <https://doi.org/10.1111/jonm.13395>

Becker, W. J., Belkin, L. Y., Tuskey, S. E., & Conroy, S. A. (2022). Surviving remotely: How job control and loneliness during a forced shift to remote work impacted employee work behaviors and wellbeing. *Human Resource Management*, 61(4), 449–464. <https://doi.org/10.1002/hrm.23102>

Blake, H., Yildirim, M., Wood, B., Knowles, S., Mancini, H., Coyne, E., & Cooper, J. (2020). Covid-well: Evaluation of the implementation of supported wellbeing centres for hospital employees during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 17(24), 9401. <https://doi.org/10.3390/ijerph17249401>

Carnevale, J. B., & Hatak, I. (2020). Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. *Journal of Business Research*, 116, 183–187. <https://doi.org/10.1016/j.jbusres.2020.05.037>

Costa, C., Teodoro, M., Mento, C., Giambò, F., Vitello, C., Italia, S., & Fenga, C. (2022). Work performance, mood and sleep alterations in home office workers during the COVID-19 pandemic. *International journal of environmental research and public health*, 19(18), 1990. <https://doi.org/10.3390/ijerph19041990>

De Vincenzi, C., Pansini, M., Ferrara, B., Buonomo, L., & Benevene, P. (2022). Consequences of COVID-19 on employees in remote working: Challenges, risks and opportunities: an evidence based literature review. *International Journal of Environmental Research and Public Health*, 19(18), 11672. <https://doi.org/10.3390/ijerph191811672>

Doo, E.-Y., & Choi, S. (2022). Effect of nurses' work experiences in a COVID-19 unit on depression: Mediation effect of resilience and moderated mediation effect of organizational trust. *Frontiers in Public Health*, 10, 1–7. <https://doi.org/10.3389/fpubh.2022.897506>

Dwyer, M., Alt, M., Brooks, J., Katz, H., & Pope, A. (2021). Burnout and compassion satisfaction: Survey findings of healthcare employee wellness during COVID-19 pandemic using ProQOL. *Kansas Journal of Medicine*, 14, 121–127. <https://doi.org/10.17161/kjm.vol1415171>

Finstad, G. L., Giorgi, G., Lulli, L. G., Pandolfi, C., Foti, G., León-Pérez, J. M., Cantero-Sánchez, F. J., & Mucci, N. (2021). Resilience, coping strategies and post-traumatic growth in the workplace following COVID-19: A narrative review on the positive aspects of trauma. *International Journal of Environmental Research and Public Health*, 18(18), 9453. <https://doi.org/10.3390/ijerph18189453>

Slide 24

References

Ganesan, B., Fong, K., Meena, S. K., Prasad, P., & Tong, R. (2021). Impact of COVID-19 pandemic lockdown on occupational therapy practice and use of telehabilitation - A cross sectional study. *European Review for Medical and Pharmacological Sciences*, 25(9), 3614–3622. <https://doi.org/10.26555/eurv.2021.9.3614>

Giorgi, G., Lecca, L., Alessio, F., Finstad, G., Bondanini, G., Lulli, L., Arcangeli, G., & Mucci, N. (2020). COVID-19-related mental health effects in the workplace: A narrative review. *International Journal of Environmental Research and Public Health*, 17(21), 7857. <https://doi.org/10.3390/ijerph17217857>

Gregory, E. (2020). Resident physicians' mental health during COVID-19: Advocating for supports during and post pandemic. *Canadian Medical Education Journal*, 11(6), 188–190. <https://doi.org/10.15684/med70492>

Hamouch, S. (2020). COVID-19 and employees' mental health: Stressors, moderators and agenda for organizational actions. *Emerald Open Research*, 2, 15. <https://doi.org/10.35241/emeraldopenres.13550.1>

Hoel, V., Zweek, C., Lediger, R., & World Federation of Occupational Therapists. (2021). The impact of Covid-19 for occupational therapy: Findings and recommendations of a global survey. *World Federation of Occupational Therapists Bulletin*, 77(2), 69–76. <https://doi.org/10.1080/14473878.2020.1855044>

Ithuru-Anderson, K. (2021). Reflections on the lived experience of working with limited personal protective equipment during the COVID-19 crisis. *Nursing Inquiry*, 28(1), 1–15. <https://doi.org/10.1111/inq.12389>

Kumar, P., Kumar, N., Aggarwal, P., & Yash, A. A. (2021). Working in lockdown: the relationship between COVID-19 induced work stressors, job performance, distress, and life satisfaction. *Current Psychology*, 40(12), 6308–6323. <https://doi.org/10.1007/s12144-021-01567-9>

Lam, L. T., Lam, M. K., Reddy, P., & Wong, P. (2022). Factors associated with work-related burnout among corporate employees amidst COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 19(3), 1295. <https://doi.org/10.3390/ijerph19031295>

Lippert, J. F., Furnari, M. B., & Kriebel, C. W. (2021). The impact of the COVID-19 pandemic on occupational stress in restaurant work: A qualitative study. *International Journal of Environmental Research and Public Health*, 18(19), 10378. <https://doi.org/10.3390/ijerph181910378>

Lunde, L.-K., Rieck, L., Christensen, J. O., Johannessen, H. A., Finne, L. B., Jørgensen, L. L., Mølv, B., & Væshøwager, J. (2022). The relationship between telework from home and employee health: A systematic review. *BMC Public Health*, 22(47), 1–14. <https://doi.org/10.1186/s12889-021-12481-2>

Mockaitis, Butler, C. L., & Ojo, A. (2022). COVID-19 pandemic disruptions to working lives: A multilevel examination of impacts across career stages. *Journal of Vocational Behavior*, 128, 1–16. <https://doi.org/10.1016/j.jvb.2022.103708>

Parent-Lamarque, A., & Boulet, M. (2021). Workers' stress during the first lockdown: Consequences on job performance analyzed with a mediation model. *Journal of occupational and environmental medicine*, 63(6), 469–475. <https://doi.org/10.1097/JOM.0000000000002172>

Peinado, M., & Anderson, K. N. (2020). Reducing social worker burnout during COVID-19. *International Social Work*, 63(6), 757–760. <https://doi.org/10.1177/0020877820962196>

Popa, I., Stefan, S., Olariu, A., Popa, S., & Popa, C. (2022). Modelling the COVID-19 pandemic effects on employees' health and performance: A PLS-SEM mediation approach. *International Journal of Environmental Research and Public Health*, 19(3), 1865. <https://doi.org/10.3390/ijerph19031865>

Powers Drette, D. (2020). Occupational therapy in the time of covid-19. *The Open Journal of Occupational Therapy*, 8(4), 1–4. <https://doi.org/10.15453/2168-6808.1794>

## Slide 25

## References

- Reilly, S., Sullard, Z. A., McCuddy, W. T., & Mahoney, J. J. (2021). Frequency and perceived effectiveness of mental health providers' coping strategies during COVID-19. *Current Psychology (New Brunswick, N.J.)*, 40(11), 9752-9762. <https://doi.org/10.1007/s11441-021-01669-z>
- Ritche, L., Cervone, D., & Sharpe, B. T. (2021). Goals and self-efficacy beliefs during the Initial COVID-19 lockdown: A mixed methods analysis. *Frontiers in Psychology*, 11, 1-11. <https://doi.org/10.3389/fpsyg.2020.559114>
- Sasaki, N., Kuroda, R., Tsuno, K., & Kawakami, M. (2020). Workplace responses to Covid-19 associated with mental health and work performance of employees in Japan. *Journal of Occupational Health*, 62(1). <https://doi.org/10.1007/s148-9585-12134>
- Serafini, G., Parmigiani, B., Amero, A., Aguglia, A., Sher, L., & Amore, M. (2020). The psychological impact of COVID-19 on the mental health in the general population. *QJM: monthly journal of the Association of Physicians*, 113(8), 531-537. Advance online publication. <https://doi.org/10.1093/qjmed/hcaa201>
- Stefanatos, P., Xenaki, L. A., Karagiorgas, I., Nigrintaki, A. A., Giannouli, E., Malogiannis, I. A., & Konstantakopoulos, G. (2022). Fear of COVID-19 impact on professional quality of life among mental health workers. *International Journal of Environmental Research and Public Health*, 19(16), 1949. <https://doi.org/10.3390/ijerph19169949>
- Tedone, A.M. (2022). Keeping up with work email after hours and employee wellbeing: Examining relationships during and prior to the COVID-19 pandemic. *Occupational Health Science*, 6, 51-79. <https://doi.org/10.1007/s41542-021-00207-3>
- Tejero, L., Seva, R. R., & Fadrillan-Camacho, V. (2021). Factors associated with work-life balance and productivity before and during work from home. *Journal of Occupational and Environmental Medicine*, 63(12), 1065-1072. <https://doi.org/10.1097/JOM.0000000000002377>
- Valtorta, R., Badissari, C., & Volpato, C. (2021). Burnout and workplace dehumanisation at the supermarket: A field study during the COVID-19 outbreak in Italy. *Journal of Community & Applied Social Psychology*, 32(4), 767-785. <https://doi.org/10.1002/casp.2588>
- Vaziri, H., Casper, W. J., Wayne, J. H., & Matthews, R. A. (2020). Changes to the work-family interface during the COVID-19 pandemic: Examining predictors and implications using latent transition analysis. *Journal of Applied Psychology*, 105(10), 1073-1087. <https://doi.org/10.1037/ap0000919>
- Veldman, D., & Van Aarde, N. (2021). The impact of COVID-19 on an employee assistance programme in a multinational insurance organisation: Considerations for the future. *SA Journal of Industrial Psychology*, 47, 1863. <https://doi.org/10.4102/sajip.v47i0.1863>
- Vowles, L. M., Francois-Walcott, R. R., Carnelley, K. B., & Checkfield, E. L. (2022). Adapting to change: How has COVID-19 affected people's work and personal goals? *PLoS ONE*, 17(2), 1-15. <https://doi.org/10.1371/journal.pone.0262195>
- Wiese, B. S., Wan-kai Hou, Napperley, R., & Tsz Wan Li (2022). Staying focused on work and satisfied with the job in times of pandemic: The power of everyday routines. *International Journal of Stress Management*, 29(2), 164-170. <https://doi.org/10.1037/ist0000241>
- Yu, J., Park, J., & Hyun, S.S. (2021). Impacts of the COVID-19 pandemic on employees' work stress, well-being, mental health, organizational citizenship behavior, and employee-customer identification. *Journal of Hospitality Marketing & Management*, 30(5), 529-548. <https://doi.org/10.1080/19368623.2021.1867283>
- Zhu, H., Xie, S., Liu, X., Yang, X., & Zhou, J. (2022). Influencing factors of burnout and its dimensions among mental health workers during the COVID-19 pandemic. *Nursing Open*, 9(4), 2013-2023. <https://doi.org/10.1002/nop.1211>

### **Executive Summary**

The purpose of this EBP process was to examine the lived-experiences and perspectives of individuals regarding their performance and participation during the COVID-19 pandemic in relation to the workplace. For the purpose of this study, when workers are mentioned, the reader can assume reference to workers from a variety of disciplines and industries. Conversely, the term healthcare worker is used for some select and specific studies. In addition, when referencing organizational support, it can be understood as the extent to which employees feel supported by their employers. Finally, psychological distress will refer to non-specific symptoms of stress, anxiety, and depression.

Four themes were identified after careful review of 35 articles related to the topic. These themes are the impact of working from home, mental health symptoms in workers, factors leading to burnout, and changes in work performance. The research suggests that the COVID-19 pandemic impacted workers' performance. The studies recommend the need for organizational support in the workplace. Throughout the literature review, it was noted that there is a need for occupational therapists to coordinate with human resource departments to improve the overall well-being of their employees in a more focused manner as we exit the COVID-19 pandemic landscape

#### **Theme 1: The Impact of Working from Home**

Many workers experienced altered well-being upon working in their new home environments if mandated to transition out of their traditional work setting (De Vincenzi et al., 2022; Lunde et al., 2022; Tedone, 2022). During the COVID-19 pandemic, a systematic review found that factors like working extended hours, heavier workloads, social isolation, feelings of job insecurity, less access to necessary work tools in the home environment, and the need to

learn new work-related coping skills were all associated with diminished well-being among workers (De Vincenzi et al., 2022). Changes in work-life balance were often affected by employees' newfound home telework environments, causing increased work time and decreased time participating in leisure and social activities (De Vincenzi et al., 2022). Further, a mixed methods qualitative study found that the inability to psychologically detach from work became a factor leading to decreased well-being and increased emotional exhaustion (Tedone, 2022). However, a systematic review found that mothers of young children aged 24-months or younger often experienced increased well-being when switching to telework (Lunde et al., 2022).

Working from home is associated with an increase in work-family conflict (Barriga Medina et al., 2021; Costa et al., 2022; De Vincenzi et al., 2022; Kumar et al., 2021). Work-family conflict that many newfound teleworkers faced during the pandemic was linked to emotional exhaustion, physical fatigue, and emotional weariness (Barriga Medina et al., 2021). The need to care for family members who are also at home due to lockdown, while simultaneously working in a virtual environment, likely contributed to the exhaustion among workers (De Vincenzi et al., 2022). A survey of home office workers ( $n = 94$ ) found that in households with children under 18 years of age, the majority of parents claimed that children in the house negatively impacted work performance, and mothers claimed that the age of the children was also an important factor (Costa et al., 2022). This is most likely due to the lack of house help, school support, and daycare facilities during the lockdown (Kumar et al., 2021). Furthermore, a cross-sectional study found that many workers in their home environment experienced work-family conflict with the simultaneous duty of two or more demands, which likely contributed to deterioration in parental functioning (Barriga Medina et al., 2021).

**Theme 2: Mental Health Symptoms in Workers**

The mental health symptom of depression was experienced by a variety of individuals across the workforce. A cross-sectional survey explored nurses' experiences ( $n = 132$ ) working during the pandemic and found that 65.6% of nurses who participated reported depressive symptoms due to COVID-19 (Doo & Choi, 2022). In a narrative review focused on examining psychological problems in the workplace, depression was found to be a common mental health symptom mentioned by workers during the pandemic. This was further expanded by an additional narrative review, in which frontline workers reported having an even higher risk of developing symptoms (Giorgi et al., 2020). A literature review aimed at identifying the main stressors on workers' mental health also found depression to be prevalent in working populations due to psychological stress and social isolation (Hamouche, 2020).

The mental health symptom of anxiety was also experienced by many workers during the COVID-19 pandemic. In a narrative review examining psychological problems in the workplace, anxiety was found to influence workers' mental health. This was associated with an increase in work hours, a lack of childcare during school closures, and workers not wanting to bring the virus home to their families (Giorgi et al., 2020). One survey looked at how the stressors of COVID-19 impacted job performance in employees working from home in India ( $n = 433$ ). They found increased symptoms of anxiety among employees which further affected their life satisfaction (Kumar et al., 2021). To combat this increase in anxiety, resilience was found to be a protective factor that was associated with lower levels of anxiety in healthcare workers and workers in any sector. This has also been linked to improved work performance (Baskin et al., 2021; Finstad et al., 2021).

The relationship of psychological distress and work during the COVID-19 pandemic was examined. In a literature review exploring the psychological effects caused by COVID-19, psychological distress was one of the many mental health symptoms experienced (Hamouche, 2020; Kumar et al., 2021). Additionally, work shifts, work pressure, work-family conflict, and an increase in work commitments heightened distress among healthcare workers and workers at large during the pandemic (Kumar et al., 2021; Zhu et al., 2022). Furthermore, a survey of employees working from home in the Philippines (N=503) found that many workers could not detach themselves from their work on their computers. Their inability to psychologically detach themselves from work increased stress levels in these employees, and as a result, they faced psychological distress (Tejero et al., 2021). Lastly, the distress experienced during the pandemic can be attributed to a lack of support for personal and family needs as employees' work demands increased. Like other stressors, this psychological distress could contribute to burnout seen in workers (Giorgi et al., 2020).

### **Theme 3: Factors Leading to Worker Burnout**

A unique factor experienced by healthcare workers included an increase in burnout due to a lack of personal protective equipment (PPE) during the COVID-19 pandemic. Being exposed to COVID-19 at work and fear of bringing the virus home led to anxiety and stress, culminating in burnout (Giorgi et al., 2020; Iheduru-Anderson, 2021). A descriptive phenomenological study (Iheduru-Anderson, 2021) explored the lived experiences of acute care nurses ( $n = 28$ ) who had a shortage of PPE during the pandemic. They found main themes of fear, anger, isolation, exhaustion, and helplessness to be associated with the high stress levels of the pandemic. Additionally, they found that the lack of PPE increased the risk of contracting COVID-19, becoming sick, and spreading it to their families.

The stage an individual is at in their career, as well as the pressure they experienced from their work during the pandemic, impacted the likelihood of developing burnout. In a longitudinal survey study aimed at examining worker disruptions, it was found that workers earlier in their career stages experienced significant levels of burnout due to a lack of resources, whereas workers in their later career stages experienced less burnout. This is likely a result of the ability to gather resources in the workplace due to their experience (Mockaitis et al., 2022). Workers that have higher pressure work environments often experienced emotional exhaustion, thus contributing to burnout. High work pressure is also associated with feelings of depersonalization toward one's job, which can be displayed as impersonally interacting with clients (Lam et al., 2022).

A review of literature across multiple healthcare disciplines displayed that building resilience in workers during the COVID-19 pandemic was associated with a decrease in the likelihood of burnout and stressors experienced (Baskin & Bartlett, 2021; Doo & Choi, 2022; Peinado & Anderson, 2020). An integrative study (Baskin & Bartlett, 2021) examined resilience, which is defined as the ability to constructively cope with adversities, in healthcare workers and found that the employees who displayed more resilience were less likely to experience negative effects of the COVID-19 pandemic. They also found that working to improve resilience in employees was a positive measure taken to combat negative effects experienced by workers, such as burnout and mental health implications. A cross-sectional survey study aimed at looking into the experiences of nurses working during the COVID-19 pandemic ( $n = 132$ ) and the relationship of resilience and trust of management. They found that resilience was a mediator to depressive symptoms that developed from a stressful work environment (Doo & Choi, 2022). A brief report examined interventions that social workers could utilize in efforts to minimize



burnout experienced due to the COVID-19 pandemic. They found that implementing positive coping strategies was associated with relieving work stressors and burnout experienced by workers (Peinado & Anderson, 2020).

#### **Theme 4: Changes in Work Performance**

COVID-19 brought many barriers to employee performance across the workforce. A review of literature uncovered several key stressors as barriers to work performance, both work-related, and non-work-related. Non-work-related stressors included: childcare, housing, financial stability, impact on personal health, family distraction, mental health, and social concerns (Dwyer et al., 2021; Kumar et al., 2021; Yu et al., 2021). Further, several studies identified work-related barriers to work performance. These barriers included role overload, occupational discomfort, increased distress levels, and fear of COVID-19 (Kumar et al., 2021; Stefanatou et al., 2022). A survey study of working professionals in a variety of private and public organizations ( $n = 433$ ) found that occupational discomfort increased employee distress levels, resulting in a decrease in life satisfaction. This change was further associated with a decrease in job performance. A phenomenological study looked at the lived experience of nurses during COVID-19 ( $n = 28$ ) and found evidence to support that the frequent changes in care standards caused these healthcare workers to be conflicted in how they provided care and increased feelings of exhaustion, anger, and grief (Iheduru-Anderson, 2021).

Despite the barriers, there were many facilitators to support work performance. Through survey studies and narrative reviews, research found the key facilitators to workplace performance were resilience, coping strategies, and compassion satisfaction, defined as positive feelings associated with a sense of work accomplishment (Doo & Choi, 2022; Finstad et al., 2021). To build upon these factors, a narrative review discovered that high levels of resilience

and strong coping strategies were related to post-traumatic growth in the healthcare and non-healthcare workplaces (Finstad et al., 2021). A cross-sectional study also found that healthcare workers ( $n = 613$ ) reported moderate levels of compassion satisfaction, showing that they derive value, meaning, and purpose from their work (Dwyer et al., 2020). Evidence found that good job performance, linked to heightened work commitment and task competence, enhanced life satisfaction (Kumar et al., 2021).

Taking into account the barriers and facilitators to work performance, there are measures that can be taken to improve employees' work life going forward. Through multiple study designs, organizational support was identified as an important factor in improving healthcare employees' work life (Doo & Choi, 2022; Finstad et al., 2021; Stefanatou et al., 2022). A survey study ( $n = 132$ ) found that increasing organizational support leads to an increase in organizational trust, which improves healthcare employees' work performance and experience (Doo & Choi, 2022). A narrative review supports the idea that organizational support should be aimed at improving healthcare workers' adaptive coping skills, resilience, and post-traumatic growth to promote well-being (Finstad et al., 2021). A cross-sectional study ( $n = 613$ ) suggested that healthcare systems should both assess and address the immense range of work-related and non-work-related stressors on healthcare employees in order to improve their workforce (Dwyer et al., 2020). A survey study of nurses ( $n = 28$ ) found evidence supporting self-care activities such as exercise, meditation, and podcasts to be effective strategies to combat stressors (Iheduru-Anderson, 2021).

## **Summary and Implications for Practice**

### **Take Home Message**

Our research suggested four emergent themes for how working individuals were impacted by the COVID-19 pandemic: the impact of working at home, new or worsening mental health symptoms, factors leading to worker burnout, and changes in work performance. These themes help explain workers' performance and participation during the pandemic, as well as their lived experiences and perspectives. Employee assistance programs, which are occasionally provided by employers as a supplement to a health and wellness benefit package, should consider all of these factors when developing, revising, and implementing strategies to improve the employee experience.

### **Findings**

The COVID-19 pandemic elicited drastic changes in the workforce, regardless of career field. One of the most extreme changes was the transition from the workplace to working from home (WFH). WFH propelled many individuals into social isolation, working extended hours, heavier workloads, feelings of job insecurity, and impaired work-life balance that greatly impacted overall well-being. Additionally, WFH is associated with an increase in work-family conflict, deterioration in parental functioning, emotional exhaustion, physical fatigue, and emotional weariness.

Throughout our review of the literature, we found evidence to support that the COVID-19 pandemic was associated with an increase in anxious and depressive feelings in workers. The most common feelings displayed across studies were those associated with depression, psychological distress, and anxiety. Depression was not only common in healthcare workers, but also the general working population due to stress and isolation. Many shifts during the pandemic,

such as a change in work environment and additional demands in the workplace were linked to psychological distress. Anxiety also influenced workers' mental health and was correlated with a decrease in life satisfaction. Despite the barriers, resilience was found to be a protective factor.

While examining research, we discovered factors that lead to increased levels of burnout in the workplace during the COVID-19 pandemic. We found that during the early stages of the pandemic the lack of personal protective equipment (PPE) for healthcare workers increased their anxiety and stress over contracting the virus and possibly bringing it home to family. We also found that the career stage workers were in had an impact on the amount of burnout they experienced. Workers who were in the earlier stages of their career were more likely to experience burnout than workers who were in the later stages of their career, likely due to the ability to accumulate resources with their experience. Additionally, if they were in a high stress environment, it was associated with greater burnout. Finally, we found a protective factor to burnout was building resilience in the workplace to combat negative effects of the pandemic.

Our research uncovered numerous stressors, both work-related and non-work-related, that were amplified by the COVID-19 pandemic. Some of these stressors included childcare, maintaining financial stability, fear of getting COVID-19, and attending to new or existing mental health concerns. In addition to these stressors, several protective factors for work performance were found. These factors include but are not limited to; resilience, coping strategies, and compassion satisfaction. We also discovered several actions employers can implement to protect their employees against the identified stressors such as providing organizational support and mental health care. The research pointed to strong themes about workers' lived experiences to guide practice moving forward in the pandemic.

**Strengths**

After analyzing the literature, we found several strengths in the quality of the research. With COVID-19 being such a recent event, many of our studies were published within the last two years, making our research very current and up to date. We also only analyzed credible, peer-reviewed sources in order to ensure accuracy in the data obtained. Many of the articles offered suggestions for future research. We found many phenomenological studies that detailed the lived experiences of workers during the COVID-19 pandemic. Lived experiences provide a moderately high level of external validity, as they are generalizable to the larger population. The individualized perspectives provided through surveys allow for a better understanding of the workers' experiences.

**Limitations**

While many strengths were identified throughout our research, there were also some limitations in the studies we examined. Perhaps the largest limitation is the lack of high level research designs such as systematic reviews and randomized control trials due to the recency of COVID-19. Many of the sources we analyzed were survey studies. Survey studies are susceptible to response bias as a result of response rate, which can lead to findings that are inaccurate or not representative of the population. Furthermore, our question was aimed at exploring the lived experiences of all workers during the COVID-19 pandemic, but many of the studies we found and analyzed focused solely on healthcare workers. During our professional presentation, audience members also highlighted the various job types and the securities they do and don't provide (e.g., part-time, full-time, contract and seasonal work) that the literature reviewed didn't yet highlight. These limitations make our information less generalizable to a wide population of individuals. Along with the specific focus on healthcare workers, many

studies analyzed were completed in the early phases of the COVID-19 pandemic, which could mean that results may not be as relevant in the later stages.

### **Implications and Recommendations**

Much of the analyzed evidence highlighted struggles that workers faced during the COVID-19 pandemic, and further delved into what can be done to combat the negative outcomes experienced by workers. A key recommendation for changing workplace practices is to provide organizational support for workers. Organizational support was linked to increased work satisfaction and decreased worker burnout. Another implication for practice is the incorporation of mental health practices within the workplace to reduce work-related stress. This is an area in which an occupational therapist could work with employers to provide services for their employees. The research analyzed thus far paves the way for more studies to be done in order to more fully understand the lived experiences of workers during the COVID-19 pandemic. As more research is published, higher levels of evidence, such as systematic reviews and meta-analyses, can be done.

### **Future Considerations**

The literature identified organizational support as a key factor for increasing mental health and decreasing burnout in workers. Future research should be aimed at examining how organizational support is best provided in the workplace, as well as what type of support is most effective for minimizing stress and maximizing mental health. This is an area in which it is crucial to work with human resources departments in order to best support employees. In addition to further research on organizational support, it is important for evidence to continue to be collected on the COVID-19 pandemic in order to gain understanding about workers' experiences throughout its entirety and upon re-entry into a 'post-pandemic' workforce

**Conclusion**

The goal of our evidence-based research process was to gain a better understanding of the lived experiences and perspectives of workers during the COVID-19 pandemic regarding their performance and participation in the workplace. A review of literature led to the formation of four main themes: the impact of working at home, new or worsening mental health symptoms, factors leading to worker burnout, and changes in work performance. After examining our peer-reviewed article findings, we analyzed strengths, limitations, implications and recommendations, and future considerations for how employees of any industry could be more supported and engaged in their work. Based on these findings, it is recommended that employers coordinate with their human resources departments to analyze the trends in employee performance and participation, either internal or external, in their workplace. This is done to identify which organizational supports could enhance the overall well-being of their employees during the remainder of the COVID-19 pandemic and for years to come.

## References

Includes all Initial Appraisal Articles

- Attridge, M. (2022). Profile of small employers in the United States and the importance of employee assistance programs during the COVID-19 pandemic. *American Journal of Health Promotion, 36*(7), 1229-1236. <https://doi.org/10.1177/08901171221112488d>
- Awada, M., Lucas, G., Becerik-Gerber, B., & Roll, S. (2021). Working from home during the COVID-19 pandemic: Impact on office worker productivity and work experience. *IOS Press, 69*(4), 1171–1189. <https://doi.org/10.3233/WOR-210301>
- Bakker, A. B., & Van Wingerden, J. (2021). Rumination about COVID-19 and employee well-being: The role of playful work design. *Canadian Psychology/Psychologie Canadienne, 62*(1), 73–79. <https://doi.org/10.1037/cap0000262>
- Barbour, N., Menon, N., & Mannering, F. (2021). A statistical assessment of work-from-home participation during different stages of the COVID-19 pandemic. *Transportation Research Interdisciplinary Perspectives, 11*, 100441. <https://doi.org/10.1016/j.trip.2021.100441>
- Barriga Medina, H. R., Campoverde Aguirre, R., Coello-Montecel, D., Ochoa Pacheco, P., & Paredes-Aguirre, M. I. (2021). The influence of work–family conflict on burnout during the COVID-19 pandemic: The effect of teleworking overload. *International Journal of Environmental Research and Public Health, 18*(19), 10302. <https://doi.org/10.3390/ijerph181910302>
- Baskin, R. G., & Bartlett, R. (2021). Healthcare worker resilience during the COVID-19 pandemic: An integrative review. *Journal of Nursing Management, 29*(8), 2329-2342. <https://doi.org/10.1111/jonm.13395>



- Becker, W. J., Belkin, L. Y., Tuskey, S. E., & Conroy, S. A. (2022). Surviving remotely: How job control and loneliness during a forced shift to remote work impacted employee work behaviors and wellbeing. *Human Resource Management, 61*(4), 449–464.  
<https://doi.org/10.1002/hrm.22102>
- Blake, H., Yildirim, M., Wood, B., Knowles, S., Mancini, H., Coyne, E., & Cooper, J. (2020). Covid-well: Evaluation of the implementation of supported wellbeing centres for hospital employees during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health, 17*(24), 9401. <https://doi.org/10.3390/ijerph17249401>
- Carnevale, J., B., Hatak, I. (2020). Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. *Journal of Business Research, 116*, 183-187. <https://doi.org/10.1016/j.jbusres.2020.05.037>
- Costa, C., Teodoro, M., Mento, C., Giambò, F., Vitello, C., Italia, S., & Fenga, C. (2022). Work performance, mood and sleep alterations in home office workers during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health, 19*(4), 1990. <https://doi.org/10.3390/ijerph19041990>
- De Vincenzi, C., Pansini, M., Ferrara, B., Buonomo, I., & Benevene, P. (2022). Consequences of COVID-19 on employees in remote working: Challenges, risks and opportunities an evidence based literature review. *International Journal of Environmental Research and Public Health, 19*(18), 11672. <https://doi.org/10.3390/ijerph191811672>
- Doo, E.-Y., & Choi, S. (2022). Effect of nurses' work experiences in a COVID-19 unit on depression: Mediation effect of resilience and moderated mediation effect of organizational trust. *Frontiers in Public Health, 10*, 1-7.  
<https://doi.org/10.3389/fpubh.2022.897506>

- Dwyer, M., Alt, M., Brooks, J., Katz, H., & Poje, A. (2021). Burnout and compassion satisfaction: Survey findings of healthcare employee wellness during COVID-19 pandemic using ProQOL. *Kansas Journal of Medicine, 14*, 121–127.  
<https://doi.org/10.17161/kjm.vol1415171>
- Finstad, G. L., Giorgi, G., Lulli, L. G., Pandolfi, C., Foti, G., León-Perez, J. M., Cantero-Sánchez, F. J., & Mucci, N. (2021). Resilience, coping strategies and posttraumatic growth in the workplace following COVID-19: A narrative review on the positive aspects of trauma. *International Journal of Environmental Research and Public Health, 18*(18), 9453. <https://doi.org/10.3390/ijerph18189453>
- Giorgi, G., Lecca, L., Alessio, F., Finstad, G., Bondanini, G., Lulli, L., Arcangeli, G., & Mucci, N. (2020). COVID-19-related mental health effects in the workplace: A narrative review. *International Journal of Environmental Research and Public Health, 17*(21), 7857.  
<https://doi.org/10.3390/ijerph17217857>
- Hamouche, S. (2020). COVID-19 and employees' mental health: Stressors, moderators and agenda for organizational actions. *Emerald Open Research, 2*, 15.  
<https://doi.org/10.35241/emeraldopenres.13550.1>
- Iheduru-Anderson, K. (2021). Reflections on the lived experience of working with limited personal protective equipment during the COVID-19 crisis. *Nursing Inquiry, 28*(1), 1-15.  
<https://doi.org/10.1111/nin.12382>
- Kumar, P., Kumar, N., Aggarwal, P., & Yeap, J. A. L. (2021). Working in lockdown: the relationship between COVID-19 induced work stressors, job performance, distress, and life satisfaction. *Current Psychology, 40*(12), 6308–6323. <https://doi.org/10.1007/s12144-021-01567-0>

- Lam, L. T., Lam, M. K., Reddy, P., & Wong, P. (2022). Factors associated with work-related burnout among corporate employees amidst COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 19(3), 1295.  
<https://doi.org/10.3390/ijerph19031295>
- Lippert, J. F., Furnari, M. B., & Kriebel, C. W. (2021). The impact of the COVID-19 pandemic on occupational stress in restaurant work: A qualitative study. *International Journal of Environmental Research and Public Health*, 18(19), 10378.  
<https://doi.org/10.3390/ijerph181910378>
- Lunde, L.-K., Fløvik, L., Christensen, J. O., Johannessen, H. A., Finne, L. B., Jørgensen, I. L., Mohr, B., & Vleeshouwers, J. (2022). The relationship between telework from home and employee health: A systematic review. *BMC Public Health*, 22(47), 1-14  
<https://doi.org/10.1186/s12889-021-12481-2>
- Mockaitis, Butler, C. L., & Ojo, A. (2022). COVID-19 pandemic disruptions to working lives: A multilevel examination of impacts across career stages. *Journal of Vocational Behavior*, 138, 1-16. <https://doi.org/10.1016/j.jvb.2022.103768>
- Parent-Lamarque, A., & Boulet, M. (2021). Workers' stress during the first lockdown: Consequences on job performance analyzed with a mediation model. *Journal of Occupational and Environmental Medicine*, 63(6), 469–475.  
<https://doi.org/10.1097/JOM.0000000000002172>
- Peinado, M., & Anderson, K. N. (2020). Reducing social worker burnout during COVID-19. *International Social Work*, 63(6), 757–760. <https://doi.org/10.1177/0020872820962196>
- Popa, I., Ștefan, S., Olariu, A., Popa, Ș., & Popa, C. (2022). Modelling the COVID-19 pandemic effects on employees' health and performance: A PLS-SEM mediation approach.

- International Journal of Environmental Research and Public Health*, 19(3), 1865.  
<https://doi.org/10.3390/ijerph19031865>
- Ritchie, L., Cervone, D., & Sharpe, B. T. (2021). Goals and self-efficacy beliefs during the Initial COVID-19 lockdown: A mixed methods analysis. *Frontiers in Psychology*, 11, 1-11. <https://doi.org/10.3389/fpsyg.2020.559114>.
- Stefanatou, P., Xenaki, L.-A., Karagiorgas, I., Ntigrintaki, A.-A., Giannouli, E., Malogiannis, I. A., & Konstantakopoulos, G. (2022). Fear of COVID-19 impact on professional quality of life among mental health workers. *International Journal of Environmental Research and Public Health*, 19(16), 9949. <https://doi.org/10.3390/ijerph19169949>
- Tedone, A.M. (2022). Keeping up with work email after hours and employee wellbeing: Examining relationships during and prior to the COVID-19 pandemic. *Occupational Health Science*, 6, 51–72. <https://doi.org/10.1007/s41542-021-00107-3>
- Tejero, L., Seva, R. R., & Fadrilan-Camacho, V. (2021). Factors associated with work-life balance and productivity before and during work from home. *Journal of Occupational and Environmental Medicine*, 63(12), 1065–1072.  
<https://doi.org/10.1097/JOM.0000000000002377>
- Valtorta, R., Baldissarri, C., & Volpato, C. (2022). Burnout and workplace dehumanization at the supermarket: A field study during the COVID-19 outbreak in Italy. *Journal of Community & Applied Social Psychology*, 32(4), 767–785.  
<https://doi.org/10.1002/casp.2588>
- Vaziri, H., Casper, W. J., Wayne, J. H., & Matthews, R. A. (2020). Changes to the work-family interface during the COVID-19 pandemic: Examining predictors and implications using

latent transition analysis. *Journal of Applied Psychology*, 105(10), 1073–1087.

<https://doi.org/10.1037/apl0000819>

Vowels, L. M., Francois-Walcott, R. R. R., Carnelley, K. B., & Checksfield, E. L. (2022).

Adapting to change: How has COVID-19 affected people's work and personal goals?

*PLOS ONE*, 17(2), 1-15. <https://doi.org/10.1371/journal.pone.0262195>

Wiese, B. S., Wai-Kai Hou, Noppeney, R., & Tsz Wai Li. (2022). Staying focused on work and satisfied with the job in times of pandemic: The power of everyday routines.

*International Journal of Stress Management*, 29(2), 166–170.

<https://doi.org/10.1037/str0000241>

Yu, J., Park, J., & Hyun, S.S. (2021). Impacts of the COVID-19 pandemic on employees' work stress, well-being, mental health, organizational citizenship behavior, and employee-

customer identification. *Journal of Hospitality Marketing & Management*. 30(5), 529-548. <https://doi.org/10.1080/19368623.2021.1867283>

Zhu, H., Xie, S., Liu, X., Yang, X., & Zhou, J. (2022). Influencing factors of burnout and its dimensions among mental health workers during the COVID-19 pandemic. *Nursing*

*Open*, 9(4), 2013–2023. <https://doi.org/10.1002/nop2.1211>