



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

**Introduction:** This study aimed to determine if work engagement played a mediating role in the relationship between teleworking and intention to quit during the COVID-19 pandemic. It also aimed to evaluate if individual (i.e., emotional intelligence, self-esteem, locus of control) and organizational (i.e., decision authority, skills utilization, workload, recognition) characteristics played a moderating role. **Material and Methods:** Path analyses were conducted with MPlus software on a sample of 254 workers from 18 organizations. **Results and Conclusions:** Teleworking was directly associated with lower work engagement and indirectly associated with intention to quit. Individual and organizational characteristics did not play a moderating role between teleworking and work engagement after a Bonferroni correction was applied. That said, one dimension of emotional intelligence (i.e. use of emotion) was directly associated with higher work engagement and indirectly associated with lower intention to quit. Moreover, skills utilization and recognition were directly associated with higher work engagement and indirectly associated with lower intention to quit. This study indicates that even if teleworking has many advantages (e.g., allows more flexibility to help employees to reconcile their personal and professional lives), it also has the disadvantage of potentially reducing work engagement. Even though this study found that individual and organizational characteristics did not attenuate or accentuate the effect of teleworking on work engagement, it provides insights into increasing work engagement and decreasing intention to quit.

## 246

### **Development and validation of a multi-lingual online questionnaire for surveying the COVID-19 prevention and control measures used in global workplaces**

Carolyn Ingram, Yanbing Chen, Vicky Downey, Mary Archibald, Natalia Rachwal, Mark Roe, Conor Buggy, Carla Perrotta

University College Dublin, School of Public Health, Physiotherapy, and Sports Science, Dublin, Ireland

**Introduction:** There is an ongoing need for targeted disease prevention and control efforts in high-risk occupational settings. This study aimed to develop, pilot, and validate an instrument for surveying occupational COVID-19 infection prevention and control (IPC) measures available to the global workforce.

**Material and Methods:** A 44-item QualtricsXM survey was developed, translated, and validated for face, content, and cross-cultural validity according to literature review, expert consultation, and pre-testing. The survey was piloted with 890 workers from diverse industries and countries. Exploratory factor analysis (EFA) was conducted, and internal consistency reliability verified with Cronbach's alpha. Hypothesis testing and Pearson correlation coefficients verified construct validity (i.e., known-groups technique, discriminant validity), and criterion validity.

**Results:** EFA revealed nine key IPC domains relating to: environmental adjustments, testing and surveillance, education, costs incurred, restricted movements, physical distancing, masking, isolation strategies, and areas for improvement. Each domain showed sufficient internal consistency reliability (Cronbach's alpha  $\geq 0.60$ ). Hypothesis testing confirmed construct validity ( $p < 0.001$ ), criterion validity ( $p \leq 0.03$ ), and discriminant validity ( $r = -0.45$ ).

**Conclusions:** The occupational IPC measures survey showed strong validity and reliability. It can be used by decision makers in the distribution of IPC resources, and to guide occupational health and safety (OSH) recommendations for preventing COVID-19 and future infectious disease outbreaks.

## 247

### **Remote work during the COVID-19 pandemic: How do digital technology use affects mental fatigue, psychological distress and well-being?**

Véra-Line Montreuil<sup>1</sup>, Julie Dextras-Gauthier<sup>2</sup>, Marie-Hélène Gilbert<sup>2</sup>, Justine Dima<sup>2</sup>, Maude Boulet<sup>3</sup>

<sup>1</sup> University of Quebec in Outaouais, Industrial Relations, Gatineau, Canada, <sup>2</sup> Laval University, Management, Quebec, Canada, <sup>3</sup> National School of Public Administration, Management, Montreal, Canada

**Introduction:** In the wake of the COVID-19 pandemic, many organizations had made a major shift towards remote work, causing an increased use of digital technology. While remote working has several benefits, one of its downsides is to create information and communication technology (ICT) demands (e.g., feeling obligated to stay connected). While previous studies have revealed the harmful effects of ICT, very few have investigated the impact of ICT demands on three specific related psychosocial factors. In such a context, this study aims to shed light on the relationship between ICT demands, mental fatigue, psychological distress and well-being. 2.

**Material and Method.** The study was conducted during the first wave of COVID-19 in 2020 in Canada. The data was collected from 320 workers who provided online consent and completed the survey on a voluntary basis. Ethical approval from the research ethics committee of Laval University was obtained. Hayes Process add-on for SPSS was used to test parallel mediation analyses. The study used validated measures to assess ICT demands, mental fatigue, psychological distress, and well-being. 3.

**Results and Conclusions.** The results reveal that mental fatigue and psychological distress significantly mediate the negative relationship between ICT demands and well-being. In a context where many organizations are now considering adopting telecommuting on a permanent or hybrid basis, these findings suggest that special attention must be paid to sufficiently supported workers in their remote work to mitigate the adverse effects on psychological health.

## 248

### **PPP model for COVID 19 mitigation for construction sector in Pune , India**

Govinda Narke<sup>1</sup>, Sidram Raut<sup>2</sup>

<sup>1</sup> Pimpri Chinchwad Municipal Corporation, Medical, Pune, India,

<sup>2</sup> Noble Hospital, Corporate, Pune, India

**Introduction:** COVID 19 pandemic has affected all sectors including constructions and workforce is severely affected due to loss of wages and cost of treatment and testing of COVID 19. In Pune one of the construction industry partnered with testing centre and isolation facilities of local self Govt in Pune.

**Material Methods:** 56 families( 213 members) were staying at construction sites during lock down and interval testing of COVID 19 i.e. Rapid antigen test or RTPCR was costly for the workers and even treatment at private centres was costly so the author suggested to take help of local municipal corporation and COVID 19 centres. The support was also extended for COVID 19 vaccination at workplace Cost saving. **Results:** 198 were tested for RAT and 6 were found positive, all were asymptomatic and then were sent to isolation at COVID 19 centres to prevent the further spread in the labour camp. Repeat testing was conducted at monthly interval and for consecutive six months avg 89% percent of the population tested regularly and positivity was rate was