Pakistan Journal of Commerce and Social Sciences
2020, Vol. 14 (4), 1043-1064
Pak J Commer Soc Sci

Technology Tetheredness and Creative Process Engagement during COVID-19: A Moderated Mediation Model of Spousal Support and Cognitive Fatigue

Zanaira Iqbal (Corresponding author)
Lahore Business School, The University of Lahore, Pakistan
Email: zanairaiqbal93@gmail.com

Asim Faheem
Imam Abdulrahman Bin Faisal University, Saudi Arabia
Email: mafaheem@iau.edu.sa

Shoaib Aslam
Department of Commerce, The Islamia University of Bahawalpur, Pakistan
Email: shoaib.aslam@iub.edu.pk

Article History

Received: 16 Sept 2020 Revised: 08 Dec 2020 Accepted: 19 Dec 2020 Published: 31 Dec 2020

Abstract

This research investigates the role of employees and their supervisors by testing how tetheredness to technology during COVID-19, affects employees' job-related outcomes. This study is grounded on conservation of resources theory. It postulates that employees are tethered with technology for job-related activities during COVID-19, resulting in poor work-related outcomes due to cognitive fatigue. Further, this research argues that behavioral demonstration of employees' mental fatigue results in less involvement in work-related creative activities, as assessed by supervisors. Drawing on conservation of resource theory and supervisors' rated of employees engagement during COVID-19 are related to creative activities. Spousal support mitigates the influence of tetheredness to technology on cognitive fatigue. Based on conservation of resources theory, this study proposes that employees are tethered with technology for job-related activities during COVID-19, resulting in poor work-related outcomes due to cognitive fatigue. Data were analyzed by performing a survey on technology professionals in Pakistan. Results showed that tetheredness to technology during COVID-19 is negatively related to employees' creative process engagement. Furthermore, cognitive fatigue more negatively influenced the focal relation. Moreover, for employees with higher spousal support, tetheredness to technology during COVID-19 may not be complicated and might even help-finings spousal support; however, this influence depends upon employee interpersonal factors as well. The findings of this research may help organizations to understand the impact of organizational expectations regarding connectivity during work from home.

Keywords: conservation of resource theory, tetheredness to technology, COVID-19, cognitive fatigue, supervisor-rated employee creative process engagement, spousal support.

1. Introduction

Tetheredness to technology research concentrates on the employee experiences of remotely working from home (Casper et al., 2007; Zoonen et al., 2020). Based on conservation of resource theory (COR) tetheredness to technology is a demand imposed by organizations towards their employees during COVID-19. The threat of life loss and a soulless attacker that infected the global psyche in the form of fear and bodies of all susceptible citizens and a large population with the potential of dangerous illness (Polizzi et al., 2020). On March 24, 2020, the Pakistani government strictly limited the movement of citizens on national territory, aiming to break the transmission of this pandemic disease. In this pandemic case, worldwide organizations have been activated online to provide services using technology to be connected through media platforms or e-mails (Xiao et al., 2020).

Furthermore, this contagious disease has harmful effects on the living population having no boundaries for race, ethnicity, caste, region, gender, sex, and social class (Polizzi et al., 2020). Moreover, COVID-19 effected the most all around the globe and employees are restricted to work from home and workplace has changed abruptly for employees (Tang et al., 2020). Studies have recognized different forms of work from home containing technology tetheredness, official e-mails, online meetings with supervisors, fast response expectations of organizations. It makes employees performance at work more problematic, the focus of our study is on tetheredness to technology during COVID-19, described as employees' working remotely and 24/7 hour connectivity reduced employees' creative process engagement (Li et al., 2020).

Tetheredness to technology during such pandemic is a developing concern due to changes at the workplace in the context of work whereby workers in most of the organizations are likely to work from home and "always-stand by," even during the non-working time (Major & Germano, 2006; Perlow, 2012). The pattern of remote work during COVID-19 blurred the limitations between family and work domains, potentially revealing in tetheredness to technology. Excessive use of technology threatened employees and create stress on their mind-set, thus reducing their locus of control in the form of absentmindedness and lack of creative performance engagement. (Barley et al., 2011). Less attention has been given on interventions that can reduce the negative effect of remote working. Many studies recommended that tetheredness to technology during COVID-19 may harm work-related results such as employee's innovative and creative behaviour (Li et al., 2020). However, the clarification for these results has been grounded greater on the assumption than empirical proof.

This study has several contributions to the employee's tetheredness to technology during COVID-19 literature. First, we eloquent a newly challenging area of investigation by using conservation of resource theory (Hobfoll, 1988, 1989,1998) and research related to technological stressors by inspecting resource loss against new consequences afar the direct effect over employees (i.e., cognitive fatigue). Our study suggests that the manager

shows critical role in seeing by what means an employee tetheredness to technology during COVID-19 through cognitive fatigue impacts (i.e. creative performance engagement or creative performance. Thus, this study pays particular consideration to the role of supervisor, in resource depletion. Secondly, this research is contributed by studying the uncertain relationship between tetheredness to technology during COVID-19 and employee creative process engagement. While employees may assume that excessive use of technology for work-related communication during COVID-19 remote work is challenging. Our conceptual model recommends an alternative perspective: such tetheredness to technology 24/7 hour is detrimental to employee creative process engagement because of employees having few interpersonal resources existing to dedicate their work. Third contribution of this research is based on the signaling theory by Spence (1973) to relate worker cognitive fatigue to creative process engagement through manager perception. Furthermore, this research points out the precarious role of supervisors play between tetheredness to technology during COVID-19 and job-related outcomes. Based on signaling theory, supervisors assess employees' job-related characteristics, engagement, and future qualities (Paustain et al., 2016). Our research proposes manager rated creative process engagement of employees are based on factors like problem identification, collecting information, decoding, and idea generation for middle-level positions. Employee engagement in creative processes is a job-related outcome that depends on the supervisor's assessment for employee growth and success (Wayne et al., 2017). We are naive of current research that must assume this standpoint to explain the intervening mechanism in which tetheredness to technology during COVID-19 is related to work outcomes. Moreover, this research extends the literature on work-related effects associated with tetheredness to technology which has primarily concerned with employee engagement in creative processes.

The purpose of this study is to look for new insights by which employees' tetheredness to technology identifies with employee's creative job performance. We build up our study model based on the theory of conservation (Hobfoll, 1988, 1989, 1998), with an emphasis on loss of resources of employees. In particular, the concept of loss spiral depends on COR theory (Wayne et al., 2017). We clarified in what way employees cognitively exhausted due to tetheredness to technology and psychological stress in workers during (COVID-19) offers less accessible personal resources that might make them capable of dealing with cognitive pressure. So, Managers may be unknown about employees' mental fatigue because of all day, every day hour connectivity demand, and the working environment exhibit of that fatigue observed by the manager in employee engagement in creative processes. Based on signaling theory, we hypothesize our model that bosses' perceptions of employee's creativity was positively related to work related outcomes such as generation of new ideas, identification of problems, generating efficient solutions, Information collecting, decoding and job designing). Further, while tetheredness to technology during COVID-19 is hypothesized as resource loss, spousal support is facilitated in resource gain, intervening the connection between tetheredness to technology during COVID-19 and cognitive fatigue (Brummelhuis & Bakker, 2012;

Halbesleben et al., 2014; Tang et al., 2017). An estimated model of our study is given in Figure 1.

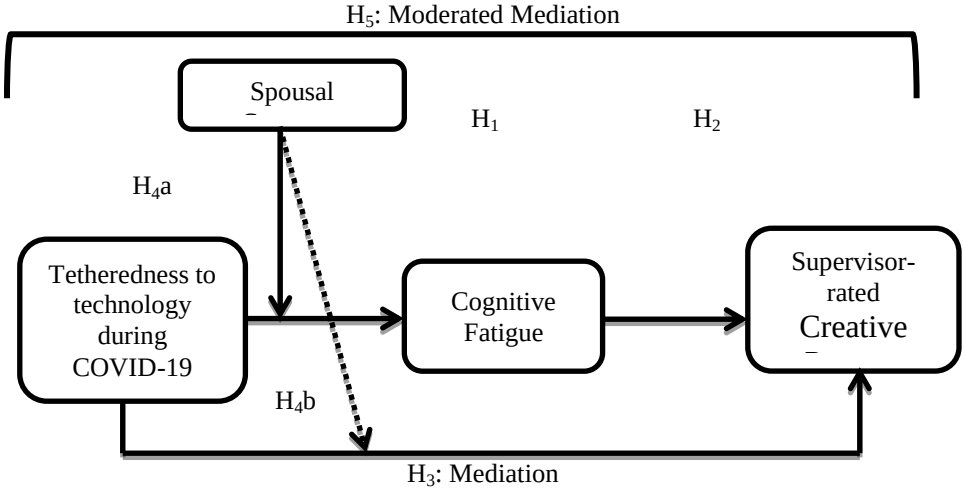

Figure: 1 Conceptual Model

2. Theoretical Framework and Hypotheses

This research investigates the employee interpersonal resources, which facilitates tetheredness to technology during COVID-19. Wayne et al. (2017) identified the construct tetheredness to technology during pandemic having a gap in the literature and need to be investigated. Previous studies relevant to tetheredness to technology do not assess the mental fatigue, especially the detrimental effect with cognitive fatigue that have the experience of such tetheredness to technology during COVID-19. These researchers defined tetheredness to technology in employees' cognitive stress that reduces their mindfulness in creative tasks while working at home during COVID-19. Employees may become absentminded while communicating in other domains due to higher connectivity demands of organizations during the pandemic. This constant connectivity demands significant effect during their non-work role (Wayne et al., 2017). Furthermore, research on interventions during COVID -19 (e.g. Spousal support in the form of emotional attachment, reduce home interruptions during work time) and personal resources like resilience, behavioral control and willpower provide indirect assistance for detrimental outcomes during COVID-19 (Sonnentag, 2003; Sonnentag et al., 2010). Work-related tetheredness to technology during COVID-19 cognitive fatigue has some long-term consequences and has the potential of research towards work-related outcomes, which will be discussed in the following segment with the lens of conservation of resources theory (COR) (Tang et al., 2020; Halbesleben et al., 2014).

2.1 Theory of Resource Conservation, Tetheredness to Technology and Cognitive Fatigue

This theory has been used mostly in organizational studies and is considered as the dominant theory for strain and stress consideration (Wayne et al., 2017). The central concept of conservation of resource theory is that an individual tries to save, build, and retain their valuable resources and threaten of these resource depletion (Hobfoll, 1989).

Hobfoll (1989) elaborate mental stress is a reaction of a problem that occurs in an environment, and the chances of resource loss are higher than resource gain. Psychological well-being is negatively influenced during self-isolation and the social distancing (Brooks et al., 2020). Quarantined people are having negative emotions such as boredom, stress, frustration, depression, anger, irritability, confusion, insomnia, domestic violence, stigma, and fear (Pfefferbaum & North, 2020). Resources are personal characteristics, objects, boundaries or conditions, and energies that are important for an individual, and some of these resources are helpful to protect some other valuable resources (Hobfoll, 1989). Furthermore, personal resources have many forms like energy, mental capacity, self-control, self, esteem, self-efficacy, resilience, self-compassion, and brainpower. Moreover, some resources are interpersonal provide emotional and instrumental support to individuals who work as a coping mechanism against stressors and help to stop resource depletion in the future.

Many studies most widely used the resource conservation theory by Hobfoll (1989) to describe workplace stressors According to Hobfoll (1989) stress able demands naturally have a significant association with cognitive, behavioral, and emotional outcomes. For example. Cooper and Lu (2019) noticed that tetheredness to technology in off working hours are prevailing at work setting have a significant effect on supervisors and employees' cognitions. Furthermore, cognitive fatigue has some adverse impact on employee memory, attention, and learning (Sulheim et al., 2015). Burke and Cooper, (2008) found that excessive use of technology has adverse effects on employee health in the form of depression, cognitive fatigue. According to Liu and Tanaka, (2002); Shields, (1999) excessive use of extreme technology cases in East Asia (14 hours per day and days in a week) is linked with severe consequences like sudden death. Recently meta-analysis on investigating the result of work-related stress that further supports these harmful effects. Tetheredness to technology during COVID-19 categorized work-related outcomes in a specific way. While work-related excessive use of technology during COVID-19 showed the significant relationship between tetheredness to technology and cognitive fatigue-related outcomes such as exhaustion, burnout, absentmindedness, creativity withdrawal, and lack of job performance. Incorporating the results, we contend that cognitive fatigue is resulting from excessive use of technology during COVID-19 where uncertain threat and 24/7 hour connectivity mix up and impact employee work-related creativity in the form of poor performance. Findings of the meta-analysis (Bakker et al., 2014) showed that role technology is an essential predictor of cognitive fatigue in organizations. Due to the technological burden on the mind employees, cognitive resources become depleted while working online at home such that it creates stress on their mind, and they feel cognitively fatigued. Their resources are unable to cope up in this situation because COVID- 19 job conditions are also problematic and challenging for employees. With a great understanding of previous studies above we develop the following hypothesis

- **H_1:** Tetheredness to technology during COVID-19 is positively related to cognitive fatigue.

2.2 Cognitive Fatigue and Creative Process Engagement

While cognitive fatigue is a loss of cognitive or emotional resource functioning via an inner manner, in a Pandemic situation it's not only impacting on mental resources but also a significant impact on emotional and physical resources (Li et al., 2020). That also has a social manifestation in the organization. Similarly, Antwi et al. (2018) found that cognitive fatigue was connected with minor employee creative process engagement rankings and greater absentmindedness, burnout, and exhaustion. Gillman et al. (2015) explained that societal changes and blurred boundaries in work and family life increase the mental fatigue in employees that may impact their creative behaviour. Furthermore, their creative behaviour manifestations might be observable by their self or by others (e.g. Manager, supervisor or immediate boss). This might be real for workers once their mental fatigue is related to technology tetheredness in off working hours instigated in the family rather than the job domain. As per COR theory, that employee cognitive fatigue is interrelated to Manager Perception against creative process engagement of their employees. According to the COR theory, cognitive fatigue is related through some resources that employee may spend in their work, joint through employee's expectations to save they are remaining few of resources. We propose a negative association among employee cognitive fatigue and creative process engagement (Gillman et al. (2015). Additionally, Wayne et al. (2017) articulated in their conservation of resource theory, demands that occur on the job, influence the energy resources generally through cognitive reactions. Among these demands, 24/7 hour connectivity is incredibly influential. Woodman et al. (1993) identify that work demands relevant to greater cognitive engagement have a diverse effect on employee creativity. According to Jonge et al. (2012), employee creativity is affected by work fatigue, because they indicate that somewhat in the organizational environment is complex and critical.

Furthermore, this is embedded in the human need to understand the interface with spouses to more readily speak with that other individual, to all the more likely comprehend that other individual's inspirations, or to foresee the other individual's activities more readily. Applying this to the working environment, bosses assume a vital function in building significant decisions related to their immediate reports and thus, will investigate worker creative performance to accumulate signs associated every worker capacity (Wayne et al., 2017). For instance, a worker's enthusiasm in taking on a difficult undertaking or going about as a challenging project might be seen by the manager or leader as a sign that the worker is happy to contribute towards work (Crain & Stevens, 2018). This investigation has keen potential on one clear sign, a worker cognitive fatigue, and supervisor interpretation about employee creative process engagement. As a recent plot, worker cognitive fatigue is related to resource loss. Thus, an employee with less personal resources to use at work is required to be seen by the manager as less occupied with creative activities, such as mindfulness and engagement is an assessment of the worker's use of unique resources in work-related creative tasks. Manager's perception of subordinate creative performance is an especially significant sign for a manager to take care of due to engagement in creative processes criticality to finding a problem, data gathering and generating idea based results (Du et al., 2019). Hence, we propose that workers with higher levels of psychological fatigue have fewer resources to use at the workplace and in this way may sign low inclusion in the innovative undertakings of

work. Managers are probably going to see workers with higher cognitive fatigue as lower in creative process engagement contrasted and those with lower psychological fatigue. With the help of the above literature, we hypothesize this relation that

- **H_2:** Cognitive fatigue is negatively associated with employee creative process engagement

2.3 Mediating role of Cognitive Fatigue between Tetheredness to technology during COVID-19 and Employee Creative Process Engagement

Based on COR, Tetheredness to technology during COVID-19 is such as expected connectivity with some resources to consume in worker creative process engagement (Zhang et al., 2019). Managers may not know about their employees' tetheredness to technology, as it might show outside the workplace. Notwithstanding, as in previous studies hypothesis, our study suggests that managers are probably going to perceive fewer workers engagement in creative activities, so when they faced a higher level of cognitive fatigue, has been recognized as a result of employees' tetheredness to technology. To understand the above literature, we hypothesize this relationship that:

- **H_3:** Cognitive Fatigue mediates the relationship between tetheredness to technology during COVID-19 and employee creative process engagement.

2.4 Moderating Role of Spousal Support

While COR theory clarifies the connection between tetheredness to technology during COVID-19 and employees' psychological fatigue as resource gain. This theory likewise underlines that a convergence of extra resources might cope up this relation in the form of Spousal support, which gives workers emotional support with more prominent consideration. It helps in accomplishing their work, might be seen as an appropriate resource at the workplace that might empower employees to oversee burdening conditions coming about because of tetheredness to technology in a pandemic situation (Tang et al., 2017). While tetheredness to technology might be inescapable. Spousal support as an interpersonal resource may furnish employees with the social moral, and emotional support that empowers them to all the more likely deal with its effect on their psychological state, enhancing cognitive fatigue due to constant connectivity. Along these lines, we expect the antagonistic relation between tetheredness to technology during COVID-19 and **c**ognitive fatigue to be tempered by spousal work support with the end goal that employees encountering tetheredness to technology yet who have higher spousal support should experience less cognitive fatigue. This moderation hypothesis and going with contentions additionally propose directed intercession impacts. In particular, because of spousal support leading impact on the relation between tetheredness to technology during COVID-19 and cognitive fatigue, **s**pousal support is predicted to mitigate the indirect effect of tetheredness to technology on employees' creative process engagement. Considering the above literature, we hypothesize that:

- **H_4a:** The relation between tetheredness to technology during COVID-19 and cognitive fatigue is moderated by spousal support

- **H_4b:** The relation between tetheredness to technology and employees' creative process engagement through cognitive fatigue is moderated by spousal support (Moderated-Mediation).

3. Research Methodology

The telecommunication sector had been decided to gather data. According Duarte and Sethi (2020) managers and leaders in the telecommunications sector have experienced higher technology-assisted job demands in pandemic due to higher dependence of other industries and quick response is expected in this challenging time from them. Online surveys had been sent to salaried workers and their supervisors/managers as a significant aspect of this investigation. Respondents have various kinds of office jobs, such as administration, finance, accounts, and marketing. Managers had authority and access over their workers, for example, creative process engagement. Survey invitations had been dispatched to 310 employees- manager's dyads. These dyads had been haphazardly chosen from many offices inside the undertaking to accomplish an expert example of employees all through the organization's number division. Complete data had been gathered for 177 dyads (reaction ratio = 59.2%). Managers were answerable on behalf of more than one subordinate; a few supervisors evaluated different employees (mean = 1.4 representatives). Demographic data, for example, a designed pattern is as monitors: 37% of the worker's routine are women, and 31% of the manager pattern is female. Seventeen per cent of the workforce had been quite a while 21–29; 49 percent have been 30–39; 19% had been 40–49, and 21 rates were 50 and over; a traditional pattern did now not gracefully age data. Nine percent of the managers have been a while 21–29, 17 rates were 30–39, 29% have been 40–49, and 23% were more than 50. Regarding training, 62% of the worker pattern holds a bachelor's qualification or advanced, though 92% of the manager sample had the equivalent. Sixteen percent of staff are reporting immediate boss for substantially less than one year; 29% one to two years; 37 rates three to five years and 19% above six years. The rest of the representatives did now not report their work experience with their manager. Three percent of personal toiled for the central office for not exactly a year, though 7 percent toiled for one to two years, 31% worked three to five years, and 59% over five years; the rest of the population did no longer record their workplace duration.

Web-based surveys had been sent by e-mail or Watsapp to respondents at timeframe 1. An e-mail invitation was sent two and afterwards a month later to the individuals who had no more however responded. Representatives are ensured against all responses would be kept hidden and used in a comprehensive and unknown manner. Watsapp or E-mail requests sent to system managers covered the title of the central representative they have been to reflect thought on while noting the electronic survey. The system manager's invitations had been sent after three weeks of the employees' requests had been sent, and update messages were sent at the identical interims as the representative updates. After nine months against the underlying surveys had been conducted (Timeframe 2), data have been given through the central organization on employees' creative performance.

Likert scale starts from 1 = strongly disagree and 7 = strongly agree had been used from all perceptual measures. Employees rated their Tetheredness to technology. We used a

two-item scale of Boswell and Olson-Buchanan (2014). Measures had been tailored following the context of our objects were measure on a 5-point Likert-scale (1= never; 5 = always). A sample question is: "How frequently you used your Smartphone/Laptop/PC?" (For Frequency) moreover, how many minutes per day you spent on common on work-related ICT-use outdoor ordinary work hours (for time?) The scales were designed with the aid of Boswell and Olson-Buchanan (2014) having the reliability (Cronbach's Alpha, 0.87)

3.1 Spousal Support

Employees rated how lots they have spousal support. A Four-item scale was used adapted from Suchet and Barling (1986) assessed the responses on 7-point Likert Scale (1= Strongly Disagree 7 = Strongly Agree). Sample gadgets assessing attitudinal, emotional, and bodily spousal support such as "Is your wife's mind-set toward your work is good"? The scales got designed by using Suchet and Barling (1986) having the reliability of (Cronbach's Alpha.0.89)

3.2 Cognitive Fatigue

We measured Cognitive fatigue through a 7-item scale adapted from Paul et al. (1998) measured the responses on (1= never; 5= every time). This scale is one of the absolute best loading items. Sample gadgets of scale Do you presently have trouble concentrating? Are you feeling less prompted than usual? Are you having problems questioning clearly? (Cronbach's alpha=0.90). Measures-Time Length 2

3.3 Creative Process Engagement

Supervisors rated their employee's Creative procedure engagement via three object scale related to hassle identification, gathering data. Decoding from Zhang and Bartol (2010) measured the responses on a five-point Likert Scale (1: "Strongly disagree"; 5: "Strongly agree"). Sample gadgets consist of "I devote widespread time trying to comprehend the nature of the problem". The scales got designed through Zhang and Bartol (2010) having the reliability of (Cronbach's Alpha 0.88).

4. Results

Table 1 represents all variables means (M), standard deviations (SD) and correlations (CR) given below. According to our results tetheredness to technology was significant negative association with spousal support ($r = -.19^{*}$ $p < .05$) and manager rated worker creative performance ($r = -.27^{**}$ pvalue $< .01$). Furthermore, tetheredness to technology and cognitive fatigue had significant positive relationship ($r = .51^{**}$ pvalue $< .01$).

Table 1: Descriptive Statistics and Correlation

Variables	Mean	SD	1	2	3	4
Tetheredness to technology during COVID-19 (E) (1)	3.68	1.74	.87			
Spousal Support (E) (2)	5.21	1.83	-.19*	.95		
Cognitive Fatigue (E) (3)	3.57	1.71	-.25**	.51**	.90	
Supervisor rating of Employee Engagement (R) (4)	5.39	1.27	-.07	.13	-.27**	.88

Note: N = 177, E = Employee-Rated variable; R= Supervisor rating variable; *p < .05. **p < .01.

4.1 Fundamental Examinations

After setting convergent and discriminant validity of our measures, we conduct confirmatory factor analysis. We used Mplus model 8 of Muthén and Muthén, (2017) for confirmatory factor analysis see in Table 2. First, we run a four-factor model, every item were loaded on its relevant factor, and we added a manager evaluation on an employee's creative process engagement. The expected results indicate model fit of our data (X2 (174) = 308.21, CFI = .97, TLI = .95, RMSEA = .05, SRMR = .06; Hu and Bentler, 1999; Wayne et al, 2017). In our study model, perspective loadings have been Significant against all items ($p < .05$), all values loadings were bigger than 0.40 meeting the standard viewpoint, and relationship coefficient between each dormant factor had been essentially littler than 1.0. We contrasted this model with two factors choice dimension models whereby employees rating against spousal support, tetheredness to technology, cognitive fatigue managers rated employee creative process engagement. Results demonstrated the assumed model (X2 (179) = 467.83, RMSEA = .09, SRMR = .08, CFI = .91, TLI = .90) was comprehensively not better than our choice four-factor model ($\Delta\chi2$ (Δdf) = 162.64 (4), $p < .01$), supporting our assessment model. Further in single-factor model employee creative process engagement results ($\chi2$ (180) = 469.81, CFI = .90, TLI = .91, RMSEA = .09, SRMR = .09 was not appropriate in comparison to our choice model. Since managers assessed a typical of 1.3 representatives, our records may contain non-free recognitions in that manager's rankings of one worker may likewise relate with their scores of one another worker. Regardless, we made plans to inspect our data other than controlling for non-free judgments for going with reasons. In the first place, eventually, no exact strategy is available for bootstrapping of nested data and information bootstrapping is yet not allowable in Mplus. This expected to choose one between data nesting or bootstrapping control the self-conviction ranges for the moderated- mediation impacts. Participants were investigated at worker stage of utilizing defined group investigation at the administrative level, at the participant's stage bootstrapping was considered to be most valuable if the bootstrapping was utilized in a proper way. Since our study model is employee level model as compare to a multi-stage model, directing for non-free (nested data), judgments will no longer trade the limit measures. They will typically diminish the popular mistake identified with every desire against the assessment. Our assessment limits in Fig 2, twice by the technique for (I) directing for the nested data and (ii)

bootstrapping the CIs except for controlling for the settled data. Limits in every assessment were correctly proportionate, and the values against all limits were effectively identical despite two limits, that varied by techniques and apply only for .004 and .005. On the other point, the CIs represents that the assessed boundaries were not, now regularly scattered, and consequently uneven helped CIs bootstrapping were more significant than the Sobel T-test relied for taking a gander at the significance of the boundaries. Second, whether or not we may moreover be in a circumstance to join the control for settled information and bootstrapping by strategies for the application of other SEM programming packs, the control for nested records will simply influence the figured exquisite misunderstandings at any rate not, now the bootstrapped inclination helped CIs. Since the evaluated boundaries are right now not consistently spread, the CIs bootstrapping will be communicated in the synthesis. In contrast, the standard blunders used to settle real factors will be overlooked. 3rd, the values of ICC (1) for chiefs appraised representative inventive cycle commitment (8 percent) we moreover indicated the examination to the strategy for haphazardly picking one worker for each manager, which reduced our model estimation to 157. The outcomes have been nearly equivalent to these of the full example at any rate with more significant standard errors in light of the truth of the modest sample size.

Table2: Alternative and Hypothesized Models (The Model Goodness For Statistically Fit)

Models	**X^2**	**d_f**	**RMSEA**	**SRMR**	**CFI**	**TLI**
Four-factor hypothesized Model (Good Fit)	308.21	174	.05	.06	.97	.95
Two factor model (merged) TT, CF, & SS, CPE	467.83	179	.09	.08	.91	.90
One-factor (all items Combined)	469.81	180	.09	.09	.90	.91

4.2 Hypothesis Test

Three step process by Cheung and Lau (2017) latent moderated structural equation (LMS) was used to test the moderated-mediation of this study. The LMS approach makes more careful boundary appraisals and the certainty stretch than the customarily used relapse method with watched factors. Besides, LMS method permits us to show a 2nd - request feature with various estimations in the examination; for instance, the supervisor rated employee engagement in creative processes. All elements in Fig 1 were measured as 1st sequential latent elements. The examinations were coordinated by utilizing Mplus 8 with the most extraordinary likelihood assessment. (Mentioned in figure 2).

Analysis Of Moderated- Mediation with Latent Factors Findings-Non-Standardized Path Coefficients [B]

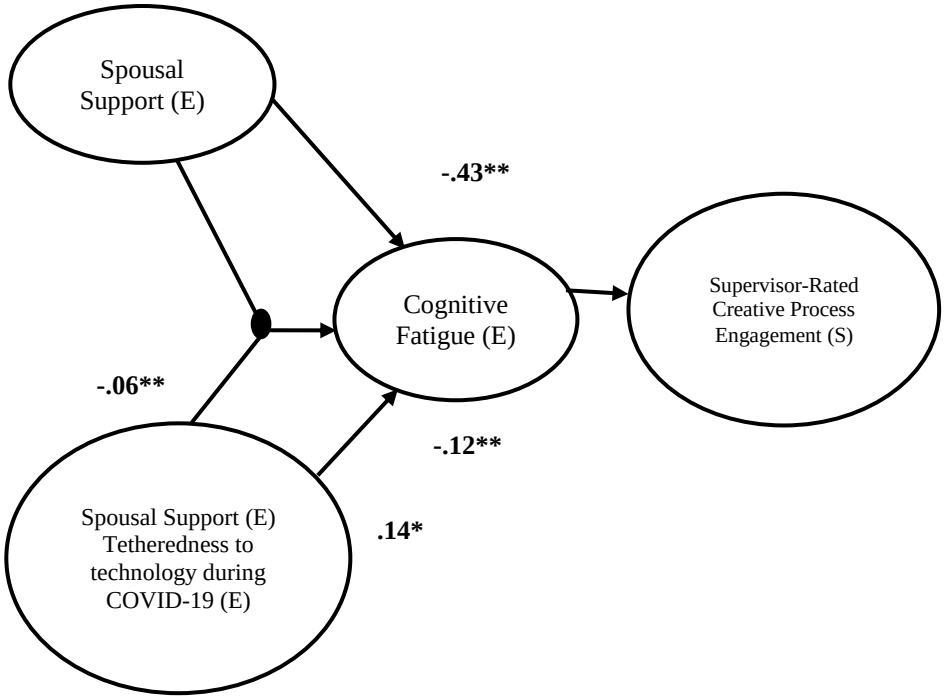

Figure 2: Latent Factors Result in Non-Standardized Path Measurements A, B Moderated Mediation Investigation

Since the LMS approach doesn't give regular fit values, the underlying stage was to assess the without latent affiliation model wellness (Muthén, 2017). The overall model fit indices propose the model fit the data well ($\chi 2$ (218) = 350.61, CFI = .96, TLI = .94, SRMR = .05, RMSEA = .04; Hu & Bentler, 1999). In sync 2, the model in Fig 2 with an inactive relationship among tetheredness to technology and spousal support was evaluated, similarly as the assessment of the route from this inactive relationship to cognitive fatigue. Following one-sided balanced CI, bootstrap was made for each assessed boundary because both the collaboration term and the mediating impacts are not routinely disseminated. Two thousand bootstrap tests were delivered in the present investigation (Cheung & Lau, 2015). In figure 2, unstandardized measurements are represented, and Table 3 showed results justification of Hypotheses 1–4. Tetheredness to technology had a positive association with psychological fatigue (b = .14, pvalue < .05) was supported hypothesis 1. The next hypothesis has additionally got support: Cognitive fatigue had a relatively significant, negative relationship with the supervisor or manager evaluated representative engagement in creative processes (b = _.12, pvalue < .01). We attempted an elective model to test hypothesis 3 with direct ways from tetheredness to technology, spousal support, and association between tetheredness to technology and

spousal support to a supervisor rated employee engagement in creative processes such as direct influence and 1st stage control model (Edwards & Lambert, 2007). The methods among boss evaluated workers creative process engagement and tetheredness to technology (b = -.02, p > .05), spousal support (b = -.01, p > .05), and relationship between tetheredness to technology and spousal support (b = .01, p > .05) were all relatively significant. These results suggest that psychological fatigue mediates in the connection between tetheredness to technology and manager rated creative process engagement, supporting Hypothesis 3. H4 recommended that spousal support would direct the association between tetheredness to technology and Cognitive exhaustion (H4a) and that the backhanded association between tetheredness to technology and manager appraised representative creative process engagement through cognitive fatigue was prohibitive on the degrees of spousal support (H4b). Following the spread out techniques for Hypothesis 4a and 4b we found assistance. Most importantly, there was significant association between tetheredness to technology and spousal support on cognitive fatigue (b = -.06, pvalue < .05; (Lower level confidence interval LLCI = -.159; (Upper-level confidence interval ULCI = -.002). 2ND, the record of moderated-mediation (Hayes, 2015), is the item term of the related effect among tetheredness to technology and spousal support on mental exhaustion and the immediate impact between psychological fatigue and boss rated employee creative performance, was significant (b = .02, pvalue < .05; Lower level of confidence interval (LLCI) = .001) and Upper level of confidence interval (ULCI) = .028). According to previous studies in the third step, the restricted indirect impact was tested by looking at the size and importance of the indirect impact of tetheredness to technology on manager rated employee creative process engagement through cognitive fatigue at different levels of spousal support (Preacher, Rucker, & Hayes, 2007; Cheung & Lau, 2017). We plotted the restricted indirect impacts of tetheredness to technology on supervisor-rated employee creative performance through cognitive fatigue at different levels of spousal support (Fig 3). It was indicated that lower level of spousal help was related with a more grounded indirect negative impact from tetheredness to technology to employee creative process engagement via cognitive fatigue. The indirect impact was just significant when spousal support was less than 0.5 level and standard deviations (SD) greater the mean (M).

Table 3: Measurements for the Restricted Procedure Model

Structural Paths	Beta	p-value	Significance	95% LLCI-ULCI
TT→CF	.14	< .05	*	[.027, .323]
CF→CPE	-.12	< .01	**	[-.002,-.024]
TT→CPE	-.02	>.05	*	[-.001,-.0.20]
TT→SS	-.01	>.05	*	[-.004,-.0.18]
TT*SS→CF	-.06	< .05	*	[-.159, -.002]
TT→CF→CPE	-.08	< .01	**	[-.219, -0.46]
TT*SS→CF→CPE	-.02	< .05	**	[.001, .028]

Note: b95% bias-corrected confidence intervals reported as: [Lower Limit Confidence Interval, Upper Limit Confidence Interval]. *p < .05. **p < .01.

Findings of moderated-mediation showed that confidence interval contains no zero [LLCI = .13, ULCI= .45] for the indirect effect of tetheredness to technology on manager rated creative process engagement of employees through cognitive fatigue in the presence of high spousal support was significant, and for the low level of spousal support [LLCI = .08, ULCI= .14] was insignificant. So, moderated-mediation hypothesis 4b was supported. To test the indirect moderating effect of tetheredness to technology on cognitive fatigue was significant in the presence of high spousal support and the confidence interval does not contain zero [LLCI= -.16, ULCI= -.25] supporting hypothesis 4a and for low spousal support, the conditional indirect was insignificant [LLCI= -.06, ULCI = -.012]. All of the above findings are given in Table 4.

Table 4: Moderated Mediation

For Creative Process Engagement				
Independent	**Mediator**	**Level of Moderator**	**Conditional Indirect Effect**	**95% Confidence Interval**
Tetheredness to Technology	Cognitive Fatigue			
		High SS	.58	[.13, .45]
		Low SS	.022	[.08, .14]
Index for Moderated Mediation			.021	[.09, .012]
Independent	**Dependent**			
Tetheredness to Technology	Creative Process Engagement	High SS	-.41	[-.16, -.25]
		Low SS	- .018	[-.06, -.012]
Index For Moderated Mediation				[-.07, -.09]

Note: SS stands for “Spousal Support”

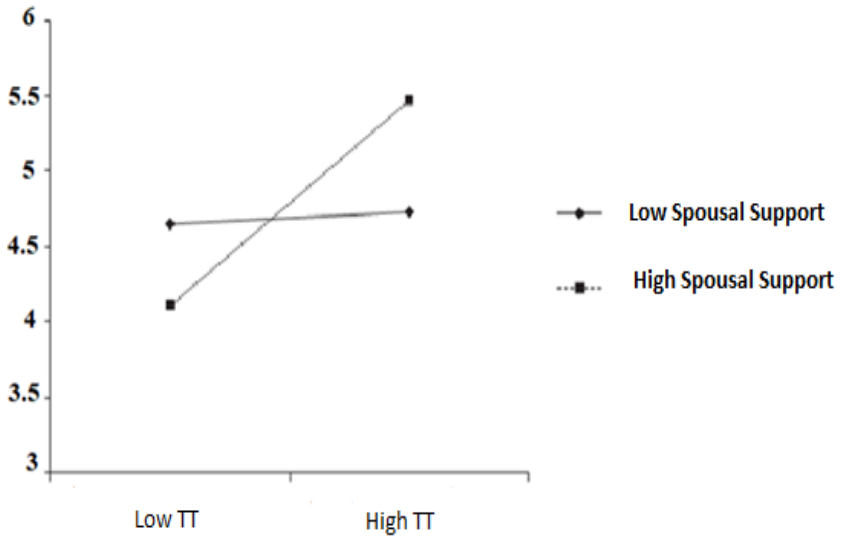

Figure 3: The Indirect Impact of Tetheredness to Technology on Employee Creative Process Engagement through Cognitive Fatigue Restricted on Spousal Support

5. Conclusion

Tetheredness to technology during COVID-19 has become a great challenge around the globe. According to the findings of this study showed that when employees experience tetheredness to technology during COVID-19, they report higher cognitive load on their mind and their mental resources become deplete, and fewer resources help to focus on their work. Moreover, it's difficult for managers to assess their engagement in creative tasks during COVID-19. Consequently, the managers evaluated cognitively fatigue employees lack engagement in creative processes. Our research makes several contributions and growing the body of research on tetheredness to technology during COVID-19 by providing further evidences of how tetheredness to technology affect employee's creative process engagement during a pandemic. To response the call by Wayne et al. (2017) for more research, we investigate how employee's technology tetheredness during COVID-19 cognitively load their minds and link to creative process engagement. Most of the researches has been done on adolescents, health and construction industry samples. The present study provides evidence that tetheredness to technology during COVID-19 have cognitive effect on key variables in all sectors around the globe especially telecom sector IT professionals due to higher connectivity demands and dependence on other departments for network issues. Initially, COR theory supports the hypothesis of our study, and especially resource loss effect; we got that tetheredness to technology depletes cognitive energy resources, expecting cognitive fatigue. This

conceptual study framework contributes in the body of literature by providing new knowledge and deep insights for the theory of resource conservation (COR: Hobfoll, 1988, 1989, 1998) by investigating the consequences of resource loss because of technology tetheredness direct effect on the dominant workers as long as stress or cognitive fatigue and signaling manager's significance. Our study investigates, employee personal resources depletion due to tetheredness to technology during COVID-19 has consequences in the past like work exhaustion. The resource loss sustain as approved from the negative association among employee cognitive fatigue and supervisor rated workers creative process engagement. Hence, work achievement related to tetheredness to technology during COVID-19, associating the signaling theory in which individual resource loss strengths us to express how technology-assisted work experienced in a pandemic is linked to features at the workplace. According to Wayne et al., (2017), signaling theory suggests that assessors look for particular signals that show upcoming potential and enabled us to associate workers deliberation of the resource depletion (cognitive fatigue) to a prompt evaluation about that loss (Manager-rated worker creative process engagement). Additionally, we bring up the basic activity that manager assessment against his/her worker creative process engagement role in this resource depletion, as this assessment radiates an impression of workplace connectivity results that are chosen by the manager. However, the findings of our study give support of this native ideas external rationality. Which supported our 1st proposed hypothesis that tetheredness to technology during COVID-19 would negatively influence with creative process engagement. The findings of our study are inconsistent with the previous study that was on construction industry professionals (Wayne et al., 2017). Which showed a negative association between these two variables. Previous researchers suggested that this result may be applied for different samples and call for future researchers to detect mediators and moderators concerning technological stressors and creative process engagement. We also trust those intervening relationships may be useful in explaining these relationships (i.e. Spousal support) were moderating this relationship. Specifically, our results showed that employees tetheredness to technology during COVID-19 improve employee creative process engagement when employee feel less cognitive fatigue and higher spousal support supporting our other three hypotheses. Likewise, our findings contribute to the theory literature. The body of theory in present research overlooks the personality differences in interpersonal resources of employees (Tan et al., 2020). In the workplace context, such as employee higher tetheredness to technology during COVID-19 (Wayne et al., 2017). Thus unpredictable results in previous studies between tetheredness to technology and manager rated employee creative process engagement during COVID-19 showed that the earlier researches neglected higher level of tetheredness to technology-related demands with manager rated employee creative performance in the context of the workplace. Furthermore, the intervening role of cognitive fatigue enhances the negative effect of tetheredness to technology, and creative performance of employees and even chances of error in creative job tasks become high have been ignored in previous researches (Kunn et al., 2020). Moreover, the current study gives much attention to this relationship due to pandemic challenges faced by organizations. In addition to current study considers the role of spousal support fitted with earlier studies perceptions such that feeling of spousal competence relax employees cognitively and lead to engaging more

towards creative tasks (Tang et al., 2017). However, very few studies have investigated spousal support in tetheredness to technology during COVID-19 at workplace context. Tang et al. (2017) recommended that in problematic workplace situations, employees those who have higher work-related spousal support can more be engaged in creative processes and more prone to innovation. There is a lot of practical implication for our study. Our research provides benefits of employees who have a low level of work-related spousal support to creative work during the pandemic situation. Supervisors/ managers should design training programs to assist their employees if they don't compromise on creative performance during this time. Boosting the level of employee's motivation to provide a higher level of creative performance organizations requires to make their workplace climate psychologically safe for their employees by reducing technology-assisted 24/7 hour connectivity demands. There also need to consider organizations that in Pandemic situation, employees have negative mood swings. Additionally, attaining the benefits of work-related spousal support supervisors/ managers need to guide their subordinates with the help of earlier examples in that employees retain their creative process engagement with technology-assisted job conditions in uncertain situations. In addition to it has been recommended that encouragement from boss and rewards helps employees to boost up their spouses regarding work-related support (Tang et al., 2017). By providing positive feedback verbally towards subordinates from their managers about their creative performance and rewards against creative efforts will also be support employees in retaining their creative abilities. Training on cognitive control related to tetheredness to technology during COVID-19 is another beneficial strategy to improve employee's creative process engagement.

Our outcomes exhibit the significant role of peers' in employees' tetheredness to technology during the pandemic and its consequences. As above referenced, personal and emotional support at home assists employees in taking part in innovative processes that can improve work-related creativity, such as the subjective well-being of employees, (Madjar, 2008). We identify that when workers had more significant job-related support at home, this improved the negative connection among tetheredness to technology and engagement with creative tasks. So in associations where spouses can help their partners by allowing them workplace connectivity at home time, this might reduce the adverse effect of tetheredness to technology on boss-rated employee's creative performance. However, as emphasized literature, need to study leadership with tetheredness to technology during a pandemic is essential but challenging to accommodate the low-level employees (Siswanti & Muafi, 2020). Another exploration of this model is to take a leadership role in employees' technology-assisted job demands that may be concluded with the help of the theory of social exchange (Major & Morganson, 2011). This study used signaling theory, and social exchange theory may also be used in future to prove this novel standpoint.

Furthermore, worker's low creativity due to tetheredness to technology in a pandemic is a sign for a manager that workers are not exchanging their relationship for their work completion. Leadership styles of leaders such as transformational leadership could also be considered beneficial in employee's work-related creativity. To conclude, the

tetheredness to technology works would be helpful for researchers those frames the transformational leadership in employee tetheredness to technology during COVID-19 with more depth and theoretical understanding of this phenomenon.

6. Limitations and Future Research

The depiction on COR and signaling theory, our outcomes support a gradual increase insignificant effect whereby tetheredness to technology is identified with employees' creative process engagement. Tetheredness to technology-related cognitive fatigue goes about as a sign by which managers the survey represents employee creative process engagement, which is related to indicators of employees' creative performance engagement. By combining, these outcomes broaden conservation of resource theory (COR) by exhibiting the significance of employees and managers in consideration of why and how tetheredness to technology during COVID-19 manifests and connect to employee creative process engagement. Our research has a few limitations. 1st, our study sample involved IT professionals in Telecom sector of Pakistan may have more technology-assisted job demands as compared to other jobs. In client support occupations, work support at home may not be a choice. Thus, the results of this study may be generalized to different cultural settings that have higher tetheredness to technology demands during COVID-19. In addition to this study have few potentials for future research. Initially, future studies could examine tetheredness to technology with employees' mental health, emotions, and attitudes related outcomes. Analysts could then concentrate on approaches to stop or decrease the loss spiral effect that comes from this type of tetheredness. Also, numerous different moderators of the tetheredness to technology and peer-rated employees' creative process engagement through cognitive fatigue might be measured as approaches to recharge workers' resources. According to Kossek et al. (2011), the meta-analysis found organizational-specific social help assists with easing technology-related stress. Finally, future research needs to investigate the coworker support in loss spiral effect. For instance, we concentrated more on employees cognitive fatigue and its relationship with the manager- rated creative process engagement, yet employees work are interdependent in groups or teams. We propose that future studies should explore employee's loss spirals, started by excessive use of technology in-depth, with consequences for colleagues and group results.

Grant Support Details / Funding

This research work received no research grant.

REFERENCES

Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014) Burnout and Work Engagement: The JD-R Approach. *Annual Review of Organizational Psychology and Organizational Behavior, 1*, 389-411.

Barley, S. R., Meyerson, D. E., & Grodal, S. (2011). Email as a source and symbol of stress. *Organization Science*, *22*(4), 887-906.

Boswell, W. R., Olson-Buchanan, J. B., & Harris, T. B. (2014). I cannot afford to have a life: Employee adaptation to feelings of job insecurity. *Personnel Psychology, 67*(4), 887-915.

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *The Lancet*, *395***,** 395: 912–920.

Burke, R. J., & Cooper, C. L. (2008). The long work hour's culture: Causes, consequences and choices. *Facilities*, 28(7/8), 395-396.

Casper, W. J., Eby, L. T., Bordeaux, C., Lockwood, A., & Lambert, D. (2007). A review of research methods in IO/OB work-family research. *Journal of Applied Psychology, 92*(1), 28–43.

Cheung, G. W., & Lau, R. S. (2017). Accuracy of parameter estimates and confidence intervals in moderated mediation models: A comparison of regression and latent moderated structural equations. *Organizational Research Methods, 20*(4), 746-769.

Cooper, C. L., & Lu, L., (2019). Excessive availability for work: Good or bad? Charting underlying motivations and searching for game-changers. *Human Resource Management Review, 29*(4), 1-13

Crain, T. L., & Stevens, S. C. (2018). Family-supportive supervisor behaviors: A review and recommendations for research and practice. *Journal of Organizational Behavior*, *39*(7), 869-888.

de Jonge, J., Spoor, E., Sonnentag, S., Dormann, C., & van den Tooren, M. (2012). "Take a break?!" Off-job recovery, job demands, and job resources as predictors of health, active learning, and creativity. *European Journal of Work and Organizational Psychology*, *21*(3), 321-348.

De Pater, I. E., Van Vianen, A. E., Bechtoldt, M. N., & KLEHE, U. C. (2009). Employees 'challenging Job Experiences and Supervisors 'evaluations Of Promotability. *Personnel Psychology*, *62*(2), 297-325.

Dierdorff, E. C., Rubin, R. S., & Morgeson, F. P. (2009). The milieu of management: Exploring the context of managerial work role requirements. *Journal of Applied Psychology*, *94*, 972-988.

Duarte, C., & Sethi, B. (2020). COVID-19 Workforce Considerations [ONLINE] Available: https://www.pwc.com/us/en/library/COVID-19/workforce-considerations (November 13th, 2020).

Du, Y., Zhang, L., & Zhang, Z. (2019). Resources matter: combined influence of job demands and job control on creative process engagement. *The Journal of Psychology*, *153*(2), 141-160.

Halbesleben, J. R., Neveu, J. P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the "COR" understanding the role of resources in conservation of resources theory. *Journal of management*, *40*(5), 1334-1364.

Hobfoll, S. E. (1988). The ecology of stress. Hemisphere Publishing Corp. NY.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513–524.

Hobfoll, S. E., & Wells, J. D. (1998). Conservation of resources, stress, and aging. In Handbook of aging and mental health (pp. 121-134). Springer, Boston, MA.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1-55.

Kossek, E. E., Pichler, S., Bodner, T., & Hammer, L. B. (2011). Workplace social support and work–family conflict: A meta-analysis clarifying the influence of general and work–family-specific supervisor and organizational support. *Personnel Psychology*, *64*(2), 289-313.

Kossek, E. E., Ruderman, M. N., Braddy, P. W., & Hannum, K. M. (2012). Work–nonwork boundary management profiles: A person-centered approach. *Journal of Vocational Behavior*, *81*(1), 112-128.

Künn, S., Seel, C., & Zegners, D. (2020). Cognitive Performance in the Home Office-Evidence from Professional Chess. IZA Discussion Papers, No. 13491, Institute of Labor Economics (IZA), Bonn, Germany.

Li, X., Song, Y., Wong, G., & Cui, J. (2020). Bat origin of a new human coronavirus: there and back again. *Science China Life Sciences*, *63*(3), 461-462.

Liu, Y., & Tanaka, H. (2002). Overtime work, insufficient sleep, and risk of non-fatal acute myocardial infarction in Japanese men. *Occupational and Environmental Medicine*, *59*(7), 447-451.

Madjar, N. (2008). Emotional and informational support from different sources and employee creativity. *Journal of Occupational and Organizational Psychology*, *81*(1), 83-100.

Mahmood, M. H., Uddin, M.A., & Fan, L. (2019). The influence of transformational leadership on employees' creative process engagement. *Management Decision, 57*, 741-764.

Major, D. A., & Germano, L. M. (2006). *The changing nature of work and its impact on the work-home interface*. In F. Jones, R. J. Burke, & M. Westman (Eds.), *Work-life balance: A psychological perspective* (p. 13–38). Psychology Press.

Major, D. A., & Morganson, V. J., 2011. Coping with work-family conflict: A leader-member exchange perspective. *Journal of Occupational Health Psychology*, *16*(1), 126-38.

Mittal, S., & Dhar, R. L. (2015). Transformational leadership and employee creativity: Mediating role of creative self-efficacy and moderating role of knowledge sharing. *Management Decision, 53*(5), 894–910.

Muthén, L.K. and Muthén, B.O. (1998-2017). Mplus User's Guide. Eighth Edition. Los Angeles, CA: Muthén & Muthén O'Dhanil, A., Leong, R. L., & Kurnianingsih, Y. A.

(2015). Cognitive fatigue destabilizes economic decision making preferences and strategies. *PloS One*, *10*(7), e0132022.

Paul, R. H., Beatty, W. W., Schneider, R., Blanco, C. R., & Hames, K. A. (1998). Cognitive and physical fatigue in multiple sclerosis: relations between self-report and objective performance. *Applied Neuropsychology*, *5*(3), 143-148.

Paustian-Underdahl, S. C., Halbesleben, J. R., Carlson, D. S., & Kacmar, K. M. (2016). The work–family interface and promotability: Boundary integration as a double-edged sword. *Journal of Management*, *42*(4), 960-981.

Perlow, L. A. (2012). *Sleeping with your smartphone: How to break the 24/7 habit and change the way you work*. Harvard Business Press.

Pfefferbaum, B., & North, C. S. (2020). Mental Health and the COVID-19 Pandemic. *The New England Journal of Medicine*, *383*(6), 510-512.

Polizzi, C., Lynn, S. J., & Perry, A. (2020). Stress and coping in the time of COVID-19: Pathways to resilience and recovery. *Clinical Neuropsychiatry: Journal of Treatment Evaluation, 17*(2), 59–62.

Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate behavioral research*, *42*(1), 185-227.

Siswanti, Y., & Muafi, M. (2020). Empowering Leadership and Individual Creativity: The Mediation Role of Psychological Empowerment in Facing COVID-19 Pandemic. *The Journal of Asian Finance, Economics, and Business, 7*(11), 809-816.

Sonnentag, S., Binnewies, C., & Mojza, E. J. (2010). Staying well and engaged when demands are high: The role of psychological detachment. *Journal of Applied Psychology, 95*(5), 965–976.

Spence, J. T., Helmreich, R., & Stapp, J. (1973). A short version of the Attitudes toward Women Scale (AWS). *Bulletin of the Psychonomic Society*, *2*(4), 219-220.

Suchet, M., & Barling, J. (1986). Employed mothers: Interrole conflict, spouse support and marital functioning. *Journal of Organizational Behavior*, *7*(3), 167-178.

Sulheim, D., Fagermoen, E., Sivertsen, O. S., Winger, A., Wyller, V. B., & Øie, M. G. (2015). Cognitive dysfunction in adolescents with chronic fatigue: a cross-sectional study. *Archives of disease in childhood*, *100*(9), 838-844.

Tang, C., Ma, H., Naumann, S. E., & Xing, Z. (2020). Perceived Work Uncertainty and Creativity during the COVID-19 Pandemic: The Roles of Zhongyong and Creative Self-Efficacy. *Frontiers in psychology*, *11*, 596232.

Tang, Y., Huang, X., & Wang, Y. (2017). Good marriage at home, creativity at work: Family–work enrichment effect on workplace creativity. *Journal of Organizational Behavior*, *38*(5), 749-766.

Wayne, S. J., Lemmon, G., Hoobler, J. M., Cheung, G. W., & Wilson, M. S. (2017). The ripple effect: A spillover model of the detrimental impact of work–family conflict on job success. *Journal of Organizational Behavior, 38*(6), 876–894.

Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, *18*(2), 293-321.

van Zoonen, W., Sivunen, A., & Rice, R. E. (2020). Boundary communication: how smartphone use after hours is associated with work-life conflict and organizational identification. *Journal of Applied Communication Research, 48* (3), 372-392.

Zhang, W., Sun, S. L., Jiang, Y., & Zhang, W. (2019). Openness to experience and team creativity: Effects of knowledge sharing and transformational leadership. *Creativity Research Journal*, *31*(1), 62-73.

Zhang, X., & Bartol, K. M. (2010). The influence of creative process engagement on employee creative performance and overall job performance: A curvilinear assessment. *Journal of Applied Psychology, 95*(5), 862–873.

Zhang, Y. Y., Kong, P. Y., Gao, L., Yu, Y. N., Liu, J., Wang, P. Q., & Wang, Z. (2020). A comparative pharmacogenomics analysis of three classic TCM prescriptions for coronary heart disease based on molecular network modeling. *Acta Pharmacologica Sinica*, *41*(6), 735-744.

Zheng, F., Liao, C., Fan, Q. H., Chen, H. B., Zhao, X. G., Xie, Z. G., Li, X. L., Chen, C. X., Lu, X. X., Liu, Z. S., Lu, W., Chen, C. B., Jiao, R., Zhang, A. M., Wang, J. T., Ding, X. W., Zeng, Y. G., Cheng, L. P., Huang, Q. F., Wu, J., Zin, R. M. (2020). Clinical Characteristics of Children with Coronavirus Disease 2019 in Hubei, China. *Current Medical Science*, *40*(2), 275–280.