THE IMPACTOF HOME-BASED Work on Stressat Work and Burnout During the COVID-19 Pandemic in Slovenia

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Abstract This study examines the relationships between homebased work, stress at work and burnout among workers during the COVID-19 pandemic in Slovenia. Mediation analysis was conducted to test the proposed relationships. The study includes 446 employees from 56 organisations. The results support the proposed hypotheses and show that employees who constantly worked from home experienced higher levels of stress and consequently burnout than employees who did not or rarely worked from home. In addition, the results show that stress at work mediates the relationship between home-based work and burnout experienced during the COVID-19 pandemic. This study contributes to the discussion of the relationship between home-based work and stress at work during the COVID-19 pandemic. The research findings have important implications for managers considering home-based work arrangements for their employees after the COVID-19 pandemic.

Keywords: stress at work, burnout, home-based work, COVID-19 pandemic,

workers



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1 Introduction

A large body of scientific research confirms the negative effects of stress on human physical and mental health (Epel et al., 2018; Cohen, Murphy & Prather, 2019; Alessi & Bennett, 2020). In the occupational context, prolonged chronic stress resulting from the demands of the work environment can lead to burnout, a syndrome characterised by severe exhaustion, negative attitudes toward work, and severely diminished work performance (Maslach, 2003; Maslach & Leiter, 2016). During the COVID-19 pandemic, many companies and organisations had to make an abrupt change and adopt work-from-home practices as part of their efforts to curb the pandemic, which was a completely new way of working for many employees who previously had little or no experience of working from home. Home-based work can be beneficial for both organisations and their employees. It is known to increase work autonomy, satisfaction and productivity (Lamovšek, Černe & Kaše, 2020; Tavares, 2017). However, research also emphasises the negative effects on employees' work-life balance, feelings of isolation and communication barriers (Gajendran & Harrison, 2007; Allen, Golden & Shockley 2015; Adamovic, 2022). In the crisis caused by the COVID-19 pandemic, which created unique conditions for workers in many industries, working from home can lead to even more negative consequences, reflected in higher levels of stress at work and burnout. In this paper, the authors examine the relationship between stress and burnout across different home-based work arrangements and test which condition leads to the lowest levels of stress at work and burnout among employees.

The aim of this study is to shed light on the relationships between home-based work, stress at work and burnout during the COVID-19 pandemic. A better understanding of these relationships can help in appropriate measures being taken to improve working conditions, reduce stress at work and burnout and improve employee well-being and satisfaction, which will have a positive impact on organisational performance. The main objectives of this study are to assess the level of stress at work and burnout among employees engaged in home-based work during the COVID-19 pandemic, and to assess how the frequency of home-based work affects the level of stress at work and burnout among workers during the pandemic. A survey study was conducted in Slovenia in 2021 involving 446 employees from 56 organisations. Mediation analysis using the PROCESS macro for SPSS by Hayes (2021) was conducted to examine the proposed relationships between home-based

work, stress at work and burnout. This study contributes to the literature on homebased work, by acknowledging that the crisis caused by COVID-19 negatively impacts the well-being of employees who work from home. This paper also contributes to the literature on stress by suggesting that home-based work is one of the conditions that can lead to increased stress and burnout in certain situations. The results of this study are important for management practice when designing jobs for regular work from home in the post-COVID-19 period.

2 Theory overview

2.1 Stress and burnout at work

Stress can be defined as a real or interpreted threat to a person's physiological or psychological integrity. A person experiences stress when they feel that the demands of the environment are greater than their ability to meet, mitigate or modify them (McEwen, 2010, pp.10-11; Buheji & Jahrami, 2020, p.10). Stressors trigger a stress response in a person (Monaghan & Spencer, 2014, p.409). Stress itself is not defined as something inherently positive or negative. Consequently, the perception and interpretation of stressors are subjective and differ from individual to individual depending on factors specific to the person or the environment in which they live (Nesse, Bhatnagar & Young, 2010; Jamieson, 2018; Ord, Stranahan, Hurley & Taber, 2020). Individuals are most often confronted with stressors of psychological and social origin, which may also stem from the work environment (Nesse, Bhatnagar & Young, 2010). 'Work-related stress is experienced when the demands of the work environment exceed the workers' ability to cope with (or control) them.' (European Agency for Safety and Health at Work, 2012, p.1).

Existing literature identifies several factors that cause work-related stress in individuals. The Job Demands-Resources Model posits that stress is a response to an imbalance between the demands of the work environment on the individual and the resources available to the individual to meet those demands (Schaufeli & Taris, 2014). The Person-Environment Fit Theory assumes that strain is the result of a mismatch between the worker, their interests, skills and abilities, and the characteristics of the work environment, its demands and/or others involved in the work process (Van Vianen, 2018). The Job Demands-Control-Support Model explains that stress arises in individuals when they have limited influence over

decision making in the work process, which includes control over the performance of their own tasks. Later, the dimension of social support was added to the theory, which refers to the positive or negative impact of interpersonal relationships in the work environment on individuals (Karasek, 1979; Fila, 2016). According to the Effort-Reward Imbalance Model, a negative emotional reaction and stress in an individual is caused by a mismatch between (perceived) high effort and low reward in the work environment (Siegrist & Li, 2016).

Regardless of whether an external stressor is perceived by an individual as positive or negative, a chronic experience of stress ultimately has a negative effect on the individual (Achor, Crum & Salovey, 2013). Stress can not only negatively impact human physical health, causing or exacerbating numerous physical diseases (Yaribeygi et al., 2017), but also human mental health (Epel et al., 2018; Cohen, Murphy & Prather, 2019; Alessi & Bennett, 2020). Chronic exposure to work-related stress that is not successfully managed can lead to burnout. Today, burnout is: '[...] one of the most widely researched consequences of chronic and severe stress in employees in a wide range of different professions.' (Childs & Stoeber, 2012, p.347). It is most commonly conceptualised as a multidimensional occupational phenomenon that includes a stress response (severe exhaustion), mental disengagement from work (cynicism), and negative perceptions of one's abilities (reduced professional efficacy) (Maslach & Leiter, 2016; Schaufeli, 2018). The stress caused by the circumstances of the COVID-19 pandemic has been associated with feelings of burnout in individuals (Yıldırım & Solmaz, 2020). The term 'pandemic burnout' has been used to describe various negative states and feelings, such as exhaustion and anxiety, resulting from the stressful circumstances of the pandemic and the measures taken to contain it (Queen & Harding, 2020).

2.2 Working from home during the COVID-19 pandemic

When the World Health Organization declared COVID-19 a pandemic on 11 March 2020, (World Health Organization, 2020), and Slovenia followed suit a day later (Government of the Republic of Slovenia, 2020), governments around the world took drastic measures to contain the spread of the disease, which included new forms of work, including home-based work (International Labor Organization, 2020a). Employers and employees had to adapt to this form of work, which was completely new to many. Home-based work – a form of telework that was intended

as a temporary, short-term solution – later became the new normal for many workers (International Labor Organization, 2020). In July 2020, nearly half of workers in the European Union (48%) reported working from home at least some of the time, including more than a third (34%) who worked exclusively from home (Eurofound, 2020).

Telework can be defined as: '[...] the use of information and communications technologies (ICT), such as smartphones, tablets, laptops and/or desktop computers, for work that is performed outside the employer's premises.' (Eurofound & International Labour Organization, 2017, p.3). It was first developed in response to the desire to eliminate commuting time and later enabled the virtualisation of work, which today allows workers to work anywhere outside the traditional office on an employer's premises, at home or in any other location that has internet access and suitable equipment (Messenger, 2019, p. 4-8).

Home-based work has several positive effects on workers. It can have a positive impact on employee job satisfaction (Lamovšek, Černe & Kaše, 2020), work-life balance, and employee productivity (Tavares, 2017). Employees who work remotely 1-3 days per week have particularly high productivity (Pearce II, 2009). It can also help increase employees' sense of autonomy, which is positively associated with better objective performance (Lamovšek, Černe & Kaše, 2020; Gajendran & Harrison, 2007). In addition, on average, employees are able to concentrate better when working from home, which could be related to less frequent interruptions and more privacy (Montreuil & Lippel, 2003).

Home-based work also has some negative consequences for employees. Studies show that, on average, the workdays of those who work from home are longer than those of workers who work on an employer's premises (Eurofound and International Labor Organization, 2017), it can lead to presenteeism (Tavares, 2017), and can increase role ambiguity (Sardeshmukh, Sharma & Golden, 2012, p.202). Remote work can also lead to a breakdown in interpersonal relationships and communication barriers in organisations and can create feelings of social and professional isolation among employees (Gajendran & Harrison, 2007; Allen, Golden & Shockley 2015; Adamovic, 2022). This can lead to increased levels of stress at work. In fact, Toscano and Zappalà (2020) classified social isolation when working from home as a work requirement that increases stress, which negatively affects employee performance. The first hypothesis for this paper is thus derived from the above reasoning:

Hypothesis 1: Home-based work is positively related to stress at work.

The results of the study conducted by Vander Elst and co-authors (2017) showed that respondents who worked from home several days per week were more likely to report lower levels of social support from their colleagues, which was associated with higher levels of stress, emotional exhaustion, cynicism about work and lower engagement at work – all of which are symptoms of burnout. This suggests that working from home could also lead to increased burnout due to the stress of working from home. This leads to the second and third hypotheses:

Hypothesis 2: Home-based work is positively related to burnout.

Hypothesis 3: Stress at work mediates the relationship between home-based work and burnout in such a way that home-based work increases stress at work, which in turn increases burnout.

The proposed relationships are summarised in Figure 1.



Figure 1: Framework of relationships between home-based work, stress at work and burnout

3 Methods

A quantitative study in Slovenia was used to test hypotheses about home-based work, stress at work and burnout. In general, Slovenian workers cite their workplace as the most common source of stress (National Institute of Public Health, 2018) and Slovenian workers are among the most burnt out in the European Union (Schaufeli, 2018). With estimates suggesting that 20-25% of workers in developed economies could work remotely 3-5 days per week in the future (Lund et al., 2020), the situation in Slovenia could worsen.

A total of 446 workers from 56 companies participated in an online survey during the months of March and April 2021. The majority of respondents were women (79.3%). The respondents were between the ages of 23 and 72, had an average age of 42.5 years (SD = 10.47), a high level of education (50% with a university degree) and an average working life of 17.3 years (SD = 11.03). Most of them (37.3%) lived in a partnership and took care of at least one child. The majority (56.5%) had an office job, with an average distance between home and work of 19.7 kilometres (SD = 22.95). The majority of respondents (70.6%) had never worked remotely prior to the COVID-19 pandemic.

Established scales from existing literature were used to assess the variables. The Perceived Stress Scale (PSS) (Cohen, Kamarck & Mermelstein, 1983) was used to measure respondents' stress at work experienced in the past 12 months. It was translated into Slovenian and modified for the context of the work environment. Respondents rated 10 items on a 5-point rating scale (0 – never, 1 – almost never, 2 – sometimes, 3 – quite often, 4 – very often). An example of an item is 'At work I get upset about things that happen unexpectedly'. The Cronbach's α is 0.865. The sum indicates the level of stress employees experience at work on a scale of 0-40. A score of 0-14 represent low stress, 14-26 moderate stress, and 27-40 high stress.

Burnout was measured using the Burnout Assessment Tool (BAT) for selfassessment of burnout experienced in the past 12 months (Schaufeli, De Witte & Desart, 2020). The Slovenian version of the questionnaire was used, with some items slightly modified to adapt them to the purpose of the study. Respondents rated 23 items on a 5-point rating scale (1 – never, 2 – rarely, 3 – sometimes, 4 – often, 5 – always). An example item is 'I feel physically exhausted at work'. The Cronbach's α is 0.938. The average of respondents' answers reflects their risk of developing burnout on a scale of 1-5. Scores of 1.00-2.58 indicate no risk of developing burnout, 2.59-3.01 indicate a risk of developing burnout, and 3.02-5.00 indicate a high risk of developing burnout.

Home-based work during the COVID-19 pandemic was measured using a single statement in which respondents indicated whether they: 1 - did not work from home, 2 - worked from home 1-2 days per week, 3 - worked from home 3-4 days per week, 4 - worked from home all the time, and 5 - other, indicating exactly how many days per month they worked from home in the last 12 months. Three

categories were then formed: never or rarely working from home (3 or fewer days per month), regularly working from home 1-4 days per week, and constantly working from home. Mediation analysis was conducted using the PROCESS macro for SPSS (Hayes, 2021) to test the effects of home-based work on stress at work and burnout (Model 4 template for PROCESS). Two dummy variables were created for the home-based work categorical variable, the first for home-based work 1-4 days per week and the second for permanent home-based work.

4 Results

The means, standard deviations and correlations are shown in Table 1. On average, respondents perceived a low level of stress at work (M = 13.53, SD = 5.85) and a low risk of burnout (M = 2.26, SD = 0.57).

Table 1: D	escriptive	statistics
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		Μ	SD	1	2	3	4	5	6
1	Age	42.47	10.47	-					
2	Gender	0.79	0.40	0.014	-				
3	Education	4.94	1.24	0.181**	-0.134**	-			
4	Home-based work	1.2	0.68	-0.179**	0.051	0.141**	-		
5	Stress at work	13.53	5.85	-0.049	0.099^{*}	0.112^{*}	0.124**	-	
6	Burnout	2.26	0.57	-0.102*	0.042	0.081	0.133**	0.748**	-
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 $^{\dagger} p < 0.10; ^{*} p < 0.05; ^{**} p < 0.01$

Based on respondents' answers to the PSS questionnaire statements, during the COVID-19 pandemic 54.13% of respondents experienced low stress at work, 44.13% experienced moderate stress at work, and 1.74% experienced high stress at work. The results of the BAT showed that 71.81% of the respondents were not at risk of burnout during the COVID-19 pandemic, while 19.38% were at risk of developing burnout and 8.81% were at high risk of developing burnout. The results also showed that 34.9% of respondents worked from home all the time during the pandemic, 49.3% worked from home 1-4 days per week, and 14.9% never or rarely worked from home. Home-based work was found to be positively correlated to stress at work (r = 0.124, p < 0.01) and burnout (r = 0.133, p < 0.01). In addition, stress at work and burnout were found to be highly correlated (r = 0.748, p < 0.01).

Mediation analysis (Table 2) first tested the effect between home-based work and stress at work (Model 1). The results show that employees who regularly worked from home 1-4 days per week experienced relatively more stress at work than those who did not work from home or rarely worked from home (3 or fewer times per month) (b = 1.537, p = 0.07). However, the results were not statistically significant. Compared to those who did not work from home all the time also experienced relatively more stress (b = 2.025, p = 0.02). The results were statistically significant. This partially confirms hypothesis 1.

Mediation analysis also tested the total effect of home-based work on burnout (Model 2). The results show that employees who regularly worked from home 1-4 days per week experienced a relatively higher risk of burnout than those who did not work from home or rarely worked from home (b = 0.150, p = 0.06). However, the results were not statistically significant. Compared to those who did not work from home or rarely worked from home, those who worked from home all the time were also relatively more likely to experience burnout (b = 0.211, p = 0.01). The results were statistically significant. This partially supports hypothesis 2.

Variables	Model 1	Model 2	Model 3
	Dependent	Dependent	Dependent
	variable: Stress at	variable:	variable:
	work	Burnout	Burnout
Intercept	9.792** (1.688)	2.099** (0.163)	1.392** (0.113)
Working from home regularly (1-4 days a week)	1.537† (0.833)	0.150† (0.081)	0.039 (0.054)
Working from home all the time	2.025* (0.846)	0.211* (0.085)	0.065 (0.057)
Age	-0.042 (0.027)	-0.004† (0.003)	-0.001 (0.002)
Gender	1.608* (0.679)	0.051 (0.066)	-0.065 (0.044)
Education	0.568* (0.232)	0.033 (0.022)	-0.008 (0.015)
Stress at work	-	-	0.072** (0.003)
F-value	4.602**	3.051*	97.597**
R ²	0.050	0.033	0.571

Table 2	: Results	of mediation	analysis
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† p < 0.10 ; * p < 0.05 ; ** p < 0.01

Furthermore, mediation analysis tested the direct effect between home-based work and burnout (Model 3). The results show that those who regularly worked from home 1-4 days per week did not experience more burnout on average than employees who did not or rarely worked from home (b = 0.039, p = 0.46). The results also show that those who worked from home all the time did not, on average, experience more burnout than employees who did not or rarely worked from home (b = 0.065, p = 0.26). However, those who experienced more stress at work were more at risk of burnout (b = 0.072, p < 0.00).

To test the mediation effect, the relative indirect effects of home-based work on burnout through stress were tested. The results show that employees who regularly worked from home 1-4 days per week experienced relatively more stress at work than those who did not work from home or rarely worked from home, which consequently led to increased burnout. However, the results were not statistically significant (b = 0.111, 95% CI: -0.009 to 0.231). The results also indicate that employees who worked from home all the time experienced relatively more stress at work than those who did not work from home or rarely worked from home, which consequently led to increased burnout. These results were statistically significant (b = 0.146, 95% CI: 0.019 to 0.273). This partially supports hypothesis 3.

6 Discussion and conclusion

This study makes an important theoretical contribution to the literature on homebased work by finding that regular home-based work under conditions of extreme crisis caused by the COVID-19 pandemic negatively affected employees' well-being by increasing stress at work and the risk of burnout. This adds to research findings that working from home can lead to higher levels of stress due to isolation, lack of social contact and social support (Gajendran & Harrison, 2007; Allen, Golden & Shockley, 2015, Adamovic, 2022) and that working from home may be associated with some dimensions of burnout (Vander Elst et al., 2017). This study also shows that there is a mediation effect of stress at work between home-based work and burnout, suggesting that employees who worked from home all the time were at higher risk of stress at work, which in turn led to a higher risk of burnout. The research findings further contribute to the literature on stress at work and show that home-based work is one of the conditions that can lead to increased stress and burnout in certain situations. The research findings also offer important empirical implications for management practice. Current job design practice emphasises the designing of jobs for the post-COVID-19 times and creating flexible work arrangements that include regular home-based work. The results of this research show that employees who did not work from home during the COVID-19 crisis, or only rarely worked from home, experienced the least stress and burnout compared to those who worked from home can lead to higher levels of stress and burnout, which can in turn reduce employee satisfaction, engagement and motivation at work (Maslach, 2003; Maslach & Leiter, 2016). Therefore, when designing jobs, these negative effects should be offset at an early stage to minimise stress and burnout and increase employee productivity at work.

This study has certain limitations. The survey was conducted under the circumstances of the COVID-19 pandemic, therefore the survey results show the extent of stress at work and burnout among Slovenian employees under these particular circumstances. The participants were not randomly selected from the full range of demographic variables, therefore the results cannot be generalised for the entire population. In addition, the results are based on the respondents' selfassessment, which means that the results are not entirely reliable due to possible biased answers, and can only serve as an estimate of the extent of stress at work and burnout among Slovenian employees. It should also be noted that the questionnaire used was relatively long, which may have resulted in less concentration and thus inaccurate responses, which was also reflected in the occasional non-response by participants. Recommendations for future research include a broader study of workplace stress and burnout among employees on a sample representative of the general population. The authors also recommend that a longitudinal study is conducted to measure the impact of home-based work on levels of stress at work and burnout among employees in the post-COVID-19 period. In addition, they propose that the moderating effects of various job design characteristics on the relationships studied should be examined, such as task, knowledge and social job characteristics.

References

- Achor, S. Crum, A. J. & Salovey, P. (2013). Rethinking Stress: The Role of Mindsets all wrong in Determining the Stress Response. *Journal of Personality and Social Psychology*, 104(4), pp. 716– 733.
- Adamovic, M. (2022). How does employee cultural background influence the effects of telework on job stress? The roles of power distance, individualism, and beliefs about telework. *International Journal of Information Management*, 62.
- Alessi, M. G. & Bennet, J. M. (2020). Mental health is the health of the whole body: How psychoneuroimmunology & health psychology can inform & improve treatment. *Journal of Evaluation in Clinical Practice*, 26(5), pp. 1539–1547.
- Allen, T. D., Golden, T. D. & Shockley, K. M. (2015). How effective is telecommuting? Assessing the status of our scientific findings. *Psychological Science in the Public Interest*, 16(2), pp. 40–68.
- Buheji, M., Jahrami, H. (2020). Minimising Stress Exposure During Pandemics Similar to COVID-19. International Journal of Psychology and Behavioral Sciences, 10(1), pp. 9–16.
- Childs, J. H. & Stoeber, J. (2012). Do you want me to be perfect? Two longitudinal studies on socially prescribed perfectionism, stress and burnout in the workplace. Work Stress, 26(4), pp. 347– 364.
- Cohen, S. & Murphy, M. & Prather, A. (2019). Ten Surprising Facts About Stressful Life Events and Disease Risk. *Annual Review of Psychology*, 70, pp. 577–597.
- Cohen, S., Kamarck, T. & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24, 386–396.
- Lamovšek, A., Černe, M. & Kaše, R. (2020). Oblikovanje dela za doseganje optimalnih izidov zaposlenih. Revija HR&M, Oktober/November 2020, pp. 10–13.
- Epel, E., Crosswell A., Mayer S., Prather, A., Slavich, G., Puterman, E., Mendesa, W. (2018) More than a feeling: A unified view of stress measurement for population science. *Frontiers in Neuroendocrinology*, 49, pp. 146–169.
- Eurofound & International Labour Organization. (2017). Working anytime, anywhere: the effects on the world of work. Luxembourg: Publications Office of the European Union. Retrieved February 1, 2021,

fromhttps://www.eurofound.europa.eu/publications/report/2017/working-anytime-anywhere- the-effects-on-the-world-of-work

- Eurofound. (2020). Living, working and COVID-19, COVID-19 series. Luxembourg: Publications Office of the European Union.
- European Agency for Safety and Health at Work. (2012). Management of psychosocial risks at work: An analysis of the findings of the European Survey of Enterprises on New and Emerging Risks (ESENER). Luxembourg: Publications Office of the European Union. Retrieved April 3, 2021, from https://osha.europa.eu/en/publications/management-psychosocial-riskswork-analysis-findings-european-survey-enterprises-new/view
- Fila, M. (2016). The Job Demands, Control, Support Model: Where Are We Now? *TKM International Journal for Research in Management*, 1, pp. 15–44.
- Gajendran, R. S. & Harrison, D. A. (2007). The Good, the Bad, and the Unknown About Telecommuting: Meta-Analysis of Psychological Mediators and Individual Consequences. *Journal of Applied Psychology*, 92(6), pp. 1524–1541.
- Government of the Republic of Slovenia. (2020). Slovenija razglasila epidemijo novega koronavirusa. https://www.gov.si/novice/2020-03-12-slovenija-razglasila-epidemijo-novega-koronavirusa/
- Hayes, A. F. 2021. The PROCESS macro for SPSS, SAS and R. Available from https://www.processmacro.org/index.html
- International Labour Organization. (2020). Teleworking during the COVID-19 pandemic and beyond a practical guide. Geneva: International Labour Office. Retrieved February 2, 2021, from https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/--travail/documents/instructionalmaterial/wcms_751232.pdf

- Jamieson, J. P., Crum, A. J., Goyer, J. P., Marotta, M. E., & Akinola, M. (2018) Optimizing stress responses with reappraisal and mindset interventions: an integrated model, *Anxiety, Stress, & Coping, 31*(3), pp. 245–261.
- Karasek, R. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. Administrative Science Quarterly, 24(2), pp. 285–306.
- Lund, S., Madgavkar, A., Manyika, J., Smit, S., Ellingrud, K., Meaney, M. & Robinson, O. (February 19, 2021). The future of work after COVID-19. McKinsey & Company. Retrieved March 19, 2021, from https://www.mckinsey.com/featured-insights/future-of-work/the-future-ofwork-after-covid-19
- Maslach, C. (2003). Job Burnout: New Directions in Research and Intervention. Current Directions in Psychological Science, 12(5), 189–192.
- Maslach, C. & Leiter, M. P. (2016). Understanding the burnout experience: recents research and its implications for psychiatry. World Psychiatry, 15, pp. 103–111.
- McEwen, B. S. (2010). Stress: Homeostasis, Rheostasis, Allostasis and Allostatic Load. In G. Fink (Ed.), Stress Science: Neuroendocrinology (pp. 10–14). San Diego, Oxford: Elsevier, Academic Press.
- Messenger, J. C. (2019). Introduction: Telework in the 21st century an evolutionary perspective. In Jon C. M. (Ed.), *Telework in the 21st century* (pp. 1–34). Cheltenham: Edward Elgar Publishing.
- Monaghan, P. & Spencer, K. A. (2014). Stress and life history. Current Biology, 24(10). 408-412.
- Montreuil, S. & Lippel, K. (2003). Telework and occupational health: a Quebec empirical study and regulatory implications. Safety Science, 41, pp. 339–358.
- National Institute of Public Health. (2018). Kako skrbimo za zdravje? Z zdravjem povezan vedenjski slog prebivalcev slovenije 2016. Ljubljana: Nacionalni inštitut za javno zdravje. Retrieved January 29, 2021,

fromhttps://www.nijz.si/sites/www.nijz.si/files/publikacijedatoteke/kako_skrbimo_za_zdra vje_splet_3007_koncna.pdf

- Nesse, R. M., Bhatnagar, S., & Young, E. A. (2010). Evolutionary origins and functions of the stress response. V G. Fink (Ed.), *Stress Science: Neuroendocrinology* (pp. 21–25). San Diego, Oxford: Elsevier, Academic Press.
- Ord, A. S., Stranahan, K. R., Hurley, R. A. & Taber, K. H. (2020). Stress-Related Growth: Building a More Resilient Brain. *The Journal of Neuropsychiatry*, 32(3), pp. 206–212.
- Pearce II, J. (2009). Successful corporate telecommuting with technology considerations for late adopters. Organizational Dynamics, 38(1), pp. 16–25.
- Queen, D. & Harding, K. (2020). Societal pandemic burnout: A COVID legacy. International Wound Journal, 17, 873–874.
- Sardeshmukh, S. R., Sharma, D. & Golden, T. D. (2012). Impact of telework on exhaustion and job engagement: a job demands and job resources model. *New Technology, Work and Employment*, 27(3), pp. 193-207.
- Schaufeli, W. B. (2018). Burnout in Europe: Relations with national economy, governance, and culture. Research Unit Occupational & Organizational Psychology and Professional Learning (internal report). Leuven: Katholieke Universiteit Leuven. Retrieved February 21, 2021, from https://www.wilmarschaufeli.nl/publications/Schaufeli/500.pdf
- Schaufeli, W. B. & Taris, T. W. (2014). A critical review of the job demands–resources model: Implications for improving work and health. In G. F. Bauer, O. Hämmig (Ed.), Bridging Occupational, Organizational and Public Health (pp. 43–68). Dordrecht: Springer.
- Schaufeli, W. B., De Witte, H. & Desart, S. (2020). Manual Burnout Assessment Tool (BAT) Version 2.0. Retrieved March 10, 2021, from https://burnoutassessmenttool.be/wpcontent/uploads/2020/08/Test-Manual-BAT-English-version-2.0-1.pdf
- Siegrist J. & Li, J. (2016). Associations of Extrinsic and Intrinsic Components of Work Stress with Health: A Systematic Review of Evidence on the Effort–Reward Imbalance Model. *International Journal of Environmental Research and Public Health*, 13(4). Retrieved October 10, 2021, from https://doi.org/10.3390/ijerph13040432

- Tavares, A. I. (2017). Telework and health effects review. International Journal of Healthcare, 3(2), pp. 30–36.
- Toscano, F. & Zappalà, S. (2020) Social Isolation and Stress as Predictors of Productivity Perception and Remote Work Satisfaction during the COVID-19 Pandemic: The Role of Concern about the Virus in a Moderated Double Mediation. *Sustainability 2020, 12*(23).
- Van Vianen, A. (2018). Person–Environment Fit: A Review of Its Basic Tenets. Annual Review of Organizational Psychology and Organizational Behavior, 5, pp. 75–101.
- Vander Elst, T., Verhoogen, R., Sercu, M., Van den Broeck, A., Baillien, E., & Godderis, L. (2017). Not Extent of Telecommuting, But Job Characteristics as Proximal Predictors of Work-Related WellBeing. *Journal of occupational and environmental medicine*, 59(10), pp. 180–186.
- World Health Organization. (2020). WHO Director-General's opening remarks at the media briefing on COVID-19 – 11 March 2020. World Health Organization. Retrieved May 24, 2021, from https://www.who.int/director-general/speeches/detail/who-director-general-s-openingremarks-at-the-media-briefing-on-covid-19---11-march-2020.
- Yaribeygi, H., Panahi, P., Sahraei, H., Johnston, T., Sahebkar, A. (2017). The impact of stress on body function: a review. *Excli Journal*, 16, pp. 1057–1072.
- Yıldırım, M. & Solmaz, F. (2020). COVID-19 burnout, COVID-19 stress and resilience: Initial psychometric properties of COVID-19 Burnout Scale, *Death Studies*, 46(3), pp. 524–532.