

**PHYSICAL, EMOTIONAL AND BEHAVIORAL SYMPTOMS OF HEALTH PROBLEMS AMONG EMPLOYEES DURING THE COVID-19 EPIDEMIC**

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*The main aim of the paper is to examine if there are statistically significant differences in the physical, emotional and behavioral symptoms of health problems among employees who worked from home and employees who worked from the workplace during the COVID-19 epidemic. The research is based on a survey of 950 employees in Slovenian companies. The results show that physical, emotional and behavioral symptoms of health problems of employees who worked from home during the COVID-19 epidemic are more strongly expressed as compared to the employees who worked from the workplace.*

**Key words:** COVID-19 epidemic, employees, physical symptoms, emotional symptoms, behavioral symptoms, health.

**ФИЗИЧЕСКИЕ, ЭМОЦИОНАЛЬНЫЕ И ПОВЕДЕНЧЕСКИЕ СИМПТОМЫ ПРОБЛЕМ СО ЗДОРОВЬЕМ У СОТРУДНИКОВ ВО ВРЕМЯ ЭПИДЕМИИ COVID-19**

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*Основная цель статьи – изучить, существуют ли статистически значимые различия в физических, эмоциональных и поведенческих симптомах проблем со здоровьем среди сотрудников, работавших дома, и сотрудников, работавших на рабочем месте во время эпидемии COVID-19. Исследование основано на опросе 950 сотрудников словенских компаний. Результаты показывают, что физические, эмоциональные и поведенческие симптомы проблем со здоровьем сотрудников, работавших дома во время эпидемии COVID-19, более сильно выражены по сравнению с сотрудниками, работавшими на рабочем месте.*

**Ключевые слова:** эпидемия COVID-19, сотрудники, физические симптомы, эмоциональные симптомы, поведенческие симптомы, здоровье.

### **1. Introduction**

The COVID-19 pandemic, also known as the coronavirus pandemic, is an ongoing pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (WHO, 2020a). The disease was first identified in December 2019 in Wuhan, China (WHO, 2020b). The COVID-19 caused the whole countries to be on lockdown, the economy has ground to a halt, and many people are afraid for themselves and their loved ones (Gautam and Sharma, 2020). With the COVID-19 lockdown, the work culture across the globe has changed. COVID-19 is having an unprecedented impact on everyone's working and personal life. Work from home is the new normal, for at least a few more months (Baker et al., 2020). Routley (2020) emphasizes that managers are worried that productivity and focus will be diminished if employees are working in more informal locations, such as home. Also, if employees aren't working in the same physical location, managers feel that team cohesiveness and company culture could suffer. According to Blonigen and Weitlauf (2020), anxiety, sleep difficulties and other symptoms of stress (e.g., anger, irritability, frustration) are common complaints during the COVID 19 pandemic. Also, insomnia, backaches, restlessness, stress and anxiety are among the side effects people are facing from prolonged work from home. A survey of 500 home employees by the Institute for Employment Studies (2020) found that 20 % of respondents admitted to increase the alcohol consumption and 60 % of respondents were doing less exercise. 64 % of respondents reported problems sleeping due to anxiety and 48 % were working irregular work patterns and long days. Respondents also felt lonely and isolated. More than half of the survey respondents reported new aches and pains, especially in the neck (58 %), shoulder (56 %) and back (55 %), compared to their normal physical condition. Poor sleep and increased risk of exhaustion are also cause for concern (Institute for employment studies, 2020). The main purpose of this research is to examines if there are statistically significant differences in the physical, emotional and behavioral symptoms of health problems among employees who worked from home during the COVID-19 epidemic and

employees who worked from the workplace during the COVID-19 epidemic. This paper aims to verify the following hypothesis:

*H1: The physical, emotional and behavioral symptoms of health problems among employees who worked from home during the COVID-19 epidemic, are more strongly expressed as compared to the employees who worked from the workplace during the COVID-19 epidemic.*

## 2. Methodology

The survey involved randomly selected 186 large and medium-sized companies in Slovenia, and from each company, five employees participated in our research. Thus, 930 employees responded to the questionnaire. The employer randomly selected five employees who responded the questionnaire.

Statements, describing different symptoms of health problems (behavioural symptoms, emotional symptoms and physical symptoms), included in the questionnaire of our research, were designed and tested in empirical research by Mosadeghrad (2014). The respondents indicated their agreement to the listed statements, at a 5-point Likert-type scale from 1 – completely disagree to 5 – completely agree.

To verify the normality of the data distribution for variables in the empirical research, Kolmogorov-Smirnov and Shapiro-Wilk tests were used. To test the hypothesis the non-parametric Mann-Whitney U test was used.

## 3. Results

Table 1, Table 2 and Table 3 present descriptive statistics (arithmetic mean and standard deviation) and statistically significant differences in different symptoms of health problems of employees who worked from home during the COVID-19 epidemic and employees who worked from the workplace. Since the Kolmogorov-Smirnov and Shapiro-Wilk test show that variables are not normally distributed ( $p < 0.001$ ) for all items that describe the different symptoms of health problems of employees, we used the non-parametric Mann-Whitney U test to test H1.

Table 1 – Descriptive statistics and statistically significant differences **in physical symptoms** of health problems of employees who worked from home and from the workplace during the COVID-19 epidemic

Statement	Employees who worked from home		Employees who worked from the workplace		Mann-Whitney U test	Asymp. Sig. (2-tailed)
	Mean	Std. dev.	Mean	Std. dev.		
I have headaches, migraines.	4.25	1.115	3.84	1.182	76859.000	0.000
My sleep cycle is messy.	4.52	0.863	4.31	0.930	83760.500	0.000
I have vertigo.	2.57	1.306	2.40	1.160	92244.500	0.149
I'm sweating.	2.58	1.242	2.51	1.121	96661.000	0.802
I have sweaty and cold hands.	2.61	1.258	2.45	1.063	93130.000	0.225
My blood pressure varies.	2.79	1.249	2.72	1.131	97452.500	0.972
I often have the flu or virosis.	2.91	1.302	2.73	1.092	91066.500	0.083
I am often tired, exhausted.	4.44	0.918	4.31	0.942	88738.000	0.008
I have stomach aches.	3.84	1.283	3.59	1.325	88013.500	0.010
I have increased heart rate.	3.22	1.224	3.06	1.248	90620.000	0.066
I have lower back pain, shoulder pain.	4.29	0.991	4.08	0.994	82902.500	0.000
I have indigestion.	3.53	1.338	3.33	1.384	89845.500	0.039

The results (Table 1) indicate that, on average, the physical symptoms of health problems of employees who worked from home during the COVID-19 epidemic are higher than physical symptoms of health problems of employees who worked from the workplace during the COVID-19 epidemic. Table 1 shows that the means for answers about the physical symptoms of health problems of employees who worked from home during the COVID-19 epidemic indicate that, on average, employees had the highest agreement with: My sleep cycle is messy (mean: 4.52), I am often tired, exhausted (4.44), I have lower back pain, shoulder pain (4.29), I have headaches, migraines (4.25), I have stomach aches (3.84), I have

indigestion (3.53). In the other cases, employees on average neither agreed nor disagreed. Based on the results of the non-parametric Mann-Whitney U test ( $p < 0.05$ ), we found that there are statistically significant differences in physical symptoms of health problems of employees who worked from home and employees who worked from the workplace during the COVID-19 epidemic. The results show that there are statistically significant differences in physical symptoms of health problems of employees which are shown in headaches, migraines; messy sleep cycle; tiredness, exhaustion; stomach aches; lower back pain, shoulder pain and indigestion.

Table 2 – Descriptive statistics and statistically significant differences **in emotional symptoms** of health problems of employees who worked from home and from the workplace during the COVID-19 epidemic

Statement	Employees who worked from home		Employees who worked from workplace		Mann-Whitney U test	Asymp. Sig. (2-tailed)
	Mean	Std. dev.	Mean	Std. dev.		
I have depressive feelings.	4.42	1.138	4.13	1.488	90778.500	0.021
I am tense.	3.96	1.177	3.51	1.022	72627.000	0.000
I feel panic.	3.98	1.420	3.14	1.466	68183.000	0.000
I am afraid of losing the job or not finishing the work on schedule.	4.18	1.265	3.49	1.629	78537.500	0.000
I am sad.	3.83	1.481	3.47	1.458	85500.500	0.001
I have a feeling of helplessness.	3.97	1.478	3.34	1.514	76195.000	0.000
To me, everything seems meaningless.	3.62	1.515	3.35	1.628	88896.500	0.016
I am emotionally exhausted.	4.02	1.405	3.82	1.425	89849.500	0.028
I am exceedingly sensitive.	3.76	1.472	3.52	1.539	89587.000	0.027
I am quarrelsome.	3.69	1.514	3.33	1.565	85757.500	0.001
I feel anger.	3.79	1.518	3.48	1.549	87331.000	0.004

The results (Table 2) indicate that, on average, the emotional symptoms of health problems of employees who worked from home during the COVID-19 epidemic are higher than physical symptoms of health problems of employees who worked from the workplace during the COVID-19 epidemic. Table 2 shows that the means for answers about the emotional symptoms of health problems of employees who worked from home during the COVID-19 epidemic indicate that, on average, employees had the highest agreement with: I have depressive feelings (mean: 4.42), I am afraid of losing the job or not finishing the work on schedule (mean: 4.18) and I am emotionally exhausted (mean: 4.02). Based on the results of the non-parametric Mann-Whitney U test ( $p < 0.05$ ), we found that there are statistically significant differences in emotional symptoms of health problems of employees who worked from home and from the workplace during the COVID-19 epidemic. The results show that there are statistically significant differences in emotional symptoms of health problems of employees which are shown in depressive feelings; tension, feeling panic; being afraid of losing the job or not finishing the work on schedule; sadness, feeling of helplessness; meaninglessness; emotional exhaustion; sensitivity, quarrelsomeness and feelings of anger.

The results (Table 3) show that, on average, the behavioral symptoms of health problems of employees who worked from home during the COVID-19 epidemic are higher than behavioral symptoms of health problems of employees who worked from workplace during the COVID-19 epidemic, except the desire for solitude and the lack of will to socialize with co-workers are lower. Table 3 shows that the means for answers about the behavioral symptoms of health problems of employees who worked from home during the COVID-19 epidemic indicate that, on average, employees had the highest agreement with: I have insomnia (mean: 4.50), I avoid activities (mean: 3.97) and my working ability has declined (mean: 3.95). Also, employees on average disagree with statements “I wish for solitude” and “I lack the will to socialise with co-workers”.

Table 3 – Descriptive statistics and statistically significant differences in behavioral symptoms of health problems of employees who worked from home and from the workplace during the COVID-19 epidemic

Statement	Employees who worked from home		Employees who worked from workplace		Mann-Whitney U test	Asymp. Sig. (2-tailed)
	Mean	Std. dev.	Mean	Std. dev.		
I avoid activities.	3.97	1.297	3.46	1.549	80572.500	0.000
I have nightmares	3.63	1.462	2.98	1.577	75569.500	0.000
I have insomnia.	4.50	0.933	3.74	1.579	75233.500	0.000
I have difficulties with concentration and memory.	3.07	1.437	2.41	1.006	74700.000	0.000
I wish for solitude.	2.13	0.964	2.20	1.028	95119.500	0.497
My working ability has declined.	3.95	1.367	3.32	1.287	71474.500	0.000
I lack the will to work.	3.62	1.469	2.90	1.267	70011.500	0.000
I lack the will to socialise with co-workers.	2.22	1.044	2.26	0.955	94113.500	0.344

Based on the results described above we confirmed hypothesis that the symptoms of health problems among employees who worked from home during the COVID-19 epidemic are more strongly expressed as compared to employees who worked from the workplace.

#### 4. Conclusion

The results showed that the physical, behavioral and emotional symptoms of health problems among employees who worked from home during the COVID-19 epidemic are more strongly expressed than symptoms of health problems among employees who worked from workplace during the COVID-19 epidemic. The results are in line with findings of Institute for Employment Studies (2020) in which researches found out that the physical symptoms manifest in sleeping problems, pains in the neck, shoulder and back. In our research we found out that employees who worked from home face with increase in physical symptoms such as messy sleep cycle, tiredness and exhaustion, lower back pain and shoulder pain, headaches and migraines, stomach aches and indigestion.

Also, the results showed that there are statistically significant differences in the emotional symptoms of health problems among employees who worked from home during the COVID-19 epidemic and employees who worked from workplace during the COVID-19 epidemic, which is in line with findings of Institute for employment studies (2020) in which researches found out that the emotional symptoms indicate in stress, depression and anxiety. Also, employees worried about job security. In our research we found out that employees who worked from home during the COVID-19 epidemic face with increase in emotional symptoms such as depressive feelings, afraid of losing the job or not finishing the work on schedule, emotional exhaustion, tension, feeling panic, feeling of helplessness, sadness, feeling anger, extreme sensitivity, quarrelsome and everything seems meaningless,

Additionally, we found out that there are statistically significant differences in the behavioral symptoms of health problems among employees who worked from home during the COVID-19 epidemic and employees who worked from workplace during the COVID-19 epidemic. This is also in line with findings of Institute for employment studies (2020) in which researchers found out that COVID-19 epidemic has negative effect on the employee's well-being, health and also, employees feel isolated, lonely and their working ability declined. Based on our research we found out that on average, the behavioral symptoms of health problems of employees who worked from home during the COVID-19 epidemic are higher than behavioral symptoms of health problems of employees who worked from workplace during the COVID-19 epidemic, except the desire for solitude and the lack of will to socialise with co-workers are lower. Employees who worked from home during the COVID-19 epidemic are face with insomnia, they avoid activities, declined working ability, nightmares and lack the will to work.

In our research we limited on physical, emotional, behavioral symptoms of health problems among employees. Therefore, for further research we propose the examination of differences in others constructs (for example, work motivation, work satisfaction) among employees who worked from home during the COVID-19 epidemic and employees who worked from workplace during the COVID-19 epidemic.

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