




# “White collars” on self-reported well-being, health and work performance when teleworking from home”

<b>AUTHORS</b>	Agota Giedrė Raišienė  Violeta Rapuano Greta Masilionytė Simonas Juozapas Raišys 
<b>ARTICLE INFO</b>	Agota Giedrė Raišienė, Violeta Rapuano, Greta Masilionytė and Simonas Juozapas Raišys (2022). “White collars” on self-reported well-being, health and work performance when teleworking from home. <i>Problems and Perspectives in Management</i> , 20(2), 497-510. doi: <a href="https://doi.org/10.21511/ppm.20(2).2022.41">10.21511/ppm.20(2).2022.41</a>
<b>DOI</b>	<a href="http://dx.doi.org/10.21511/ppm.20(2).2022.41">http://dx.doi.org/10.21511/ppm.20(2).2022.41</a>
<b>RELEASED ON</b>	Wednesday, 29 June 2022
<b>RECEIVED ON</b>	Monday, 16 May 2022
<b>ACCEPTED ON</b>	Monday, 20 June 2022
<b>LICENSE</b>	 This work is licensed under a <a href="https://creativecommons.org/licenses/by/4.0/">Creative Commons Attribution 4.0 International License</a>
<b>JOURNAL</b>	"Problems and Perspectives in Management"
<b>ISSN PRINT</b>	1727-7051
<b>ISSN ONLINE</b>	1810-5467
<b>PUBLISHER</b>	LLC “Consulting Publishing Company “Business Perspectives”
<b>FOUNDER</b>	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

**52**



NUMBER OF FIGURES

**0**



NUMBER OF TABLES

**11**

© The author(s) 2022. This publication is an open access article.



## BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"  
Hryhorii Skovoroda lane, 10,  
Sumy, 40022, Ukraine  
[www.businessperspectives.org](http://www.businessperspectives.org)

**Received on:** 16<sup>th</sup> of May, 2022

**Accepted on:** 20<sup>th</sup> of June, 2022

**Published on:** 29<sup>th</sup> of June, 2022

© Agota Giedrė Raišienė, Violeta Rapuano, Greta Masilionytė, Simonas Juozapas Raišys, 2022

Agota Giedrė Raišienė, Dr., Professor, Department of Management, Klaipėda University, Lithuania. (Corresponding author)

Violeta Rapuano, Mgr., Ph.D. Student, Institute of Management and Political Science, Mykolas Romeris University, Lithuania.

Greta Masilionytė, MBA, UAB Responsum, Lithuania.

Simonas Juozapas Raišys, MBA, UAB Bridge2Apex, Lithuania.

Agota Giedrė Raišienė (Lithuania), Violeta Rapuano (Lithuania),  
Greta Masilionytė (Lithuania), Simonas Juozapas Raišys (Lithuania)

# “WHITE COLLARS” ON SELF-REPORTED WELL-BEING, HEALTH AND WORK PERFORMANCE WHEN TELEWORKING FROM HOME

## Abstract

In the wake of the pandemic, telework became relevant to more employees than before. Researchers suggest both positive and negative impact of telework on employees. The study examines office workers' self-reports on the impact of teleworking on their subjective well-being, health, and productivity. Data (N = 475) were collected from teleworkers in Lithuania during the COVID-19 pandemic. Findings indicate that teleworking during the pandemic had a negative impact on the well-being (in work-life balance aspect) and health (mostly in terms of mental exhaustion) of office workers, while work performance suffered relatively less. Also, this study revealed three original observations. First, well-being evaluations of teleworkers were found to be most correlated with close relationships and age. Second, teleworkers who live with their parents have the most positive evaluations of teleworking in all three areas: well-being, health, and productivity. And third, the overlap between family and work when working from home increases the likelihood that women and young workers will be less concerned about healthy living habits. This study contributes to a better understanding of the factors teleworkers face when working at home and can help companies improve their hybrid working strategies.

## Keywords

telework, working at home, subjective well-being, subjective health, self-reported productivity, office-workers, HRM

## JEL Classification

I30, J81

## INTRODUCTION

Studies of telework signal that teleworkers face rationing and overtime problems, and that their personal lives are constantly intertwined with work (Jackson & Fransman, 2018; Sarbu, 2018). While workers' rights are protected by law in economically developed countries, legal instruments alone do not help workers to achieve a healthy work-life balance. The problem is even more acute because, in the wake of the pandemic, teleworking was a completely new experience for most workers, often resulting in negative experiences ranging from anxiety to hopelessness (Dubey & Tripathi, 2020), as the separation of work and leisure time became more difficult.

Researchers studying employee well-being suggest that work-life imbalances lead to poorer health and well-being, and can also cause depression (Lunau et al., 2014; Kotera et al., 2020; Lizana & Vega-Fernandez, 2021). However, employee surveys carried out during the natural experiment of relocating to work at home in the context of the COVID-19 pandemic present mixed results. Some studies report that



This is an Open Access article, distributed under the terms of the [Creative Commons Attribution 4.0 International license](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

### Conflict of interest statement:

Author(s) reported no conflict of interest

employees have a positive view of teleworking (Bakaç et al., 2021; Tudy, 2021) and telework productivity (Khodaparasti & Garbollah, 2022), while having a negative view on the compulsory return to the office (Hoskins, 2022). However, there is not yet enough research to formulate robust evidence-based insights (Gragnano et al., 2020), and research findings show conflicting trends (Morikawa, 2022). Therefore, it remains relevant to accumulate evidence-based knowledge on how employees feel and evaluate their performance when they self-organize their work routines.

## 1. LITERATURE REVIEW

Teleworking has its own challenges. It has an impact on the physical and mental state of a worker. According to various studies, teleworking can lead to stress due to changes in work organization, task distribution, the diffusion of working hours and responsibilities, and lack of socialization (Belzunegui-Eraso & Erro-Garcés, 2020; Tavares et al., 2020). In addition, teleworkers must perform radically different roles at the same time, create new procedures for doing their work, and devote separate attention to managing the boundaries between their life and work (Syrek et al., 2021). Research reveals that more than two-fifths of workers do not manage to take breaks during the working day when teleworking, and almost half of workers work more hours than when working in an office. Thus, teleworking ultimately leads to blurred boundaries between interpersonal and work life (Benavides et al., 2021) and conflicts with loved ones (Ghislieri et al., 2021; Camacho & Barrios, 2022).

Health impact studies show that teleworkers are more likely to suffer from sleep disturbances, other psycho-emotional disorders, and ergonomic harm to the body, in addition to the direct consequences of extended working hours (Belzunegui-Eraso & Erro-Garcés, 2020; Tavares et al., 2020; Lunde et al., 2022; Beckel & Fisher, 2022).

Overtime seems to be the most burdensome for workers who combine work and childcare at home. Research conducted during the COVID-19 pandemic suggests that the age of the children being raised determines how well the work-life balance works (Schieman et al., 2021). Overtime significantly increases when children of demanding age are at home with working parents. Their care is distracting and requires more breaks from work, stretching not only the working hours but also the working day itself (Krisjane et al., 2020). Eventually, it becomes difficult to separate work

and family time (Putri & Amran, 2021). The exacerbation of work-family balance problems when working remotely from home has been proven in several studies (e.g., Hu & Subramony, 2022; Keller et al., 2022; Lizana et al., 2021; Blahopoulou et al., 2022). Studies also show that combining telework with childcare particularly affects women (Kurowska, 2020; Yildirim & Ziya, 2020; Lizana et al., 2021).

On the other hand, for workers without young children, work-life conflict has even decreased after relocating to work at home (Schieman et al., 2021). Teleworking allows people to autonomously organize their daily work routine (Alcantara & Flaminiano, 2022; Yildirim, 2022). In addition, teleworking makes it easier for employees to avoid excessive workload from colleagues (Shao et al., 2021) and leave them more satisfied with lower levels of background noise while working (Umishio et al., 2022). In some business activities there is justified evidence of higher productivity of remote work (Aslan et al., 2022; Shava, 2021), lower risks for health, particularly, for frontline workers during COVID-19 (Ginevičius et al., 2022; Remeikienė & Bagdonas, 2021). Besides, the increased opportunities for teamwork using ICT during the pandemic are also important advantages of telework (Jurek et al., 2021).

It should also be noted that work-life imbalances experienced by teleworkers cannot be predicted with negative well-being assessments. A study by Blahopoulou et al. (2022) showed that even teleworkers with children at home, who were generally less satisfied with working from home, rated their well-being better when working at home than when working in an office. Thus, the effects of teleworking are not necessarily negative (Putri & Amran, 2021).

Both over-involvement and over-distancing from work lead to health problems and inefficiency among teleworkers (Bussin & Swart-Opferman,

2021; Rietveld et al., 2021). Employees have different behaviors and consequences when teleworking. Some individuals conserve psycho-emotional energy, limit their activity and ultimately alienate themselves from the organization, while others seek to maintain contact with colleagues and supervisors even more than they would when working in the office (Andel et al., 2021). The latter are more at risk of exhaustion and burnout. Research shows that, in general, teleworking increases stress and fatigue in employees (Hadi et al., 2021), but working intensively with people while teleworking puts them at a higher risk of neuropsychological fatigue and burnout (Sârbu et al., 2021). In other words, some workers are at increased risk of emotional exhaustion when working remotely due to the nature of their work or their extroverted character.

When it comes to the effectiveness of teleworking and the productivity of employees, the scientific results are mixed. For instance, a study in Japan found that white-collar office workers outperformed service sector workers whose jobs are characterized by face-to-face contact with customers, although, overall, all workers experience a decrease in productivity when working at home (Morikawa, 2022). Meanwhile, another study in Japan shows a productivity increase of more than 4% when working from home (Kawakubo & Arata, 2022). In addition, some studies have shown that productivity is associated with work income: the higher the productivity, the higher the person's work income (Xiao, 2022). Interestingly, the results of the latter study show an "inverse" relationship between productivity and income. Similarly, studies carried out in France before the pandemic suggested that productivity is about 9% higher when teleworking than when working in an office, and that this figure has risen further during the pandemic (Bergeaud et al., 2022). In general, many researchers who have investigated the issue during a pandemic report an increase in productivity (Iddagoda & Opatha, 2020). Although there are opinions that the increase should not be attributed to the nature of work, i.e., teleworking, but to the crisis. In times of cataclysms, people's behaviour is different compared to normal circumstances and this may be the answer to the increase in work productivity (Hou et al., 2022).

Earlier surveys on teleworking, carried out at different times and in different samples in Lithuania during the pandemic, have shown specific results on teleworkers compared to other Western countries. For instance, teleworking is less valued by men and younger people, as well as by some professional communities (Raišienė et al., 2020; Raišienė et al., 2021). On the other hand, Tvaronavičienė et al. (2021) prove that youth highly appreciate possibilities for education and positive family relationships maintaining in their system of well-being factors, which, in their turn, are more available in the case of teleworking. The high importance of these factors contributes to the fact that employers offer appropriate opportunities in their employer value propositions (Samoliuk et al., 2022). Further research may lead to research on teleworking in culturally and geographically diverse countries and provide a broader picture of the differences in perceptions of teleworkers.

To sum up, researchers do not give a definitive answer on the role of teleworking in productivity. It seems to depend to a large extent on work culture, occupation, and other variables. On the other hand, evidence of productivity gains or losses can only be demonstrated through experimental measurements. However, large-scale research of this kind is not always possible. Experiment as a method is limited in terms of the reliability of the results when productivity is strongly related to human factors such as creativity or is strongly dependent on cooperation and is only partly attributable to the worker. In such cases, it should be relied on employee self-reporting to learn more about employee effectiveness and productivity in teleworking.

This paper aims to disclose the perspective of business teleworkers on their subjective well-being and work productivity when working at home instead of an office.

## 2. METHODS

Employee survey was conducted in Lithuania. Probability sampling was used to select the survey sample. Since the population of the study, i.e., the number of office workers, cannot be determined, the sample was calculated from the total number

of workers in Lithuania. According to the latest statistics, the number of employees in Lithuania in 2019 was 1,287,920. Thus, based on Paniotto's formula (1984), to apply the findings of the survey to the general population with a margin of error of 5% and reliability of 95%, 400 employed people need to be surveyed. The survey collected 475 fully completed questionnaires. Thus, the sample allowed to ensure the representativeness of the survey. The survey was carried out on the e-survey platform <https://apklausa.lt>. The invitation to office workers to participate in the survey was distributed by online survey system in social networks LinkedIn and Facebook (LinkedIn is an online social networking service that is business and career development-oriented, while Facebook is an online social media and networking service intended for general public). Facebook was chosen because the average age of its users shows that the majority are of working age. This network was also chosen in the hope of extending the reach of potential respondents.

The questionnaire consisted of demographic questions and three blocks of statements related to the evaluation of telework. The first block of statements was designed to find out how teleworkers assess the impact of teleworking on subjective well-being, the second block of statements was designed to find out how teleworking affects the health of office workers specifically, and the third block of questions was designed to find out how the respondents describe their work performance and productivity when teleworking. The respondents' answers were analyzed using SPSS statistical software.

When filling out the closed-type questionnaire, participants were asked to express their opinion on a five-point Likert scale ranging from 1 (not important at all) to 5 (absolutely essential). The internal consistency of the questionnaire was assessed by Cronbach's alpha (test score reliability coefficient). The reliability of a survey instrument is considered adequate if  $p > 0.8$  (Nunnally & Bernstein, 1994). The analysis of the survey results shows that

Cronbach's alphas for questionnaire scales were 0,962, 0,944 and 0,885, respectively (Table 1).

The analysis of the survey results focused on the correlation of respondents' answers with demographic data: gender, age, living arrangement and having/not having children. These factors, as can be seen from the review of academic publications presented above, often play a role in differences regarding the attitudes and experiences of teleworkers.

When analyzing research data, p-value and significance level  $\alpha$  were used with the following parameters: (a)  $p < 0.05$  – the difference between frequencies is significant; (b)  $p < 0.01$  – the difference between frequencies is highly significant; (c)  $p > 0.05$  – differences between frequencies are statistically insignificant.

Ethics of the study. Respondents gave their informed consent to participate in the survey. The questionnaire header informed respondents of the purpose of the study, informing them that no personally identifiable data will be disclosed to third parties and that participation in the study is voluntary and that respondents have the right to withdraw from the study at any time.

A total of 475 respondents completed the survey, of which 359 (75.6%) were women and 116 (24.4%) were men. Respondents were aged 18 and over. The majority of respondents were employed. The sample also included 4% of those who lost their jobs during the pandemic. They were asked to rate their experience of teleworking before losing their job. The demographic characteristics of the respondents are presented in Table 2.

Survey data were analyzed through correlation analysis using non-parametric variables analysis. The Mann-Whitney U criterion was used for groups with two variables and the Kruskal-Wallis criterion for groups with more than two variables.

**Table 1.** Internal consistency of the survey questionnaire

Scale	Items	Cronbach alpha, p
Teleworking impact on subjective well-being	18	0.962
Teleworking impact on health	14	0.944
Teleworking impact on work efficiency and performance	8	0.885



**Table 2.** Characteristics of survey respondents

Variable	Characteristics	N	Percentage
Gender	Female	359	75.6%
	Male	116	24.4%
Age	18-25	99	20.8%
	26-34	236	49.7%
	35-49	119	25.1%
	50-64	18	3.8%
	65	3	0.6%
	Employment	Employed	442
Unemployed		19	4%
Students (remote)		14	2.9%
Telework scope (hours per week)	20 h/week and less	34	7.2%
	21 to 30 h/week	31	6.5%
	31 to 40 h/week	150	31.6%
	41 to 50 h/week	171	36%
	51 to 60 h/week	67	14.1%
	more than 60 h/week	22	4.6%
	Children	Raising children	209
Without children		266	56%
Living arrangement	Married	241	52%
	Single	77	16%
	In a committed relationship	125	26%
	Living with parents	16	3%
	Unwilling to disclose	16	3%
Overall respondents: 475			

In the results section below, statistically significant results of the survey are presented.

### 3. RESULTS

First, the subjective well-being challenges experienced by teleworkers surveyed was examined.

Statistical analysis by gender using the Mann-Whitney U criterion revealed several statistically significant aspects (Table 3). Men are statistically more likely than women to experience conflicts in the family because of work. It also shows that men are more likely than women to complete unfinished

tasks on their own time. Meanwhile, women are statistically significantly more likely than men to have insufficient time for hobbies.

Correlation analysis was used to analyze the relationships between the impact of work-life balance on subjective quality of life with age and having children. Almost all the statements in the scale measuring the impact of work-life balance on subjective quality of life were statistically significantly correlated with having children (Table 4). Hence, the results of this study indicate that the fact of having children contributes to work-life imbalance which affects the quality of life in turn. When analyzing the relationship with the age of

**Table 3.** Telework influence on respondents' subjective well-being. The evaluation of teleworking between men and women

Source: Authors' compilation.

Statement	Gender	N	Mean Rank	Mann-Whitney U	p
My work causes conflicts within my family.	Male	116	262.52	17977.500	0.022*
	Female	359	230.08		
I don't have the opportunity to devote enough time to my hobbies.	Male	116	202.49	16703.00	0.001**
	Female	359	249.47		
I must complete my unfinished tasks on my own personal time.	Male	116	261.06	18147.500	0.035*
	Female	359	230.55		

Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ .

respondents, it appeared that it is a less significant factor. Still, there were several significant relationships with the quality of life, such as that the older workers experience more difficulties to separate working time from personal time ( $r = 0.114$ ,  $p < 0.05$ ), they have also to work more during the holidays ( $r = 0.096$ ,  $p < 0.05$ ) and they must bring at home unfinished work more often ( $r = 0.116$ ,  $p < 0.05$ ). Moreover, the older workers are more likely to answer work calls/e-mails in their free time ( $r = 0.097$ ,  $p < 0.05$ ) and they experience more difficulties to meet family responsibilities due to long working hours ( $r = 0.102$ ,  $p < 0.05$ ).

**Table 4.** Correlation between work-life balance impact on subjective quality of life with respondents' age and having children

Source: Authors' compilation.

Statement	Attribute	
	Age <i>R</i>	Children <i>r</i>
It is difficult for me to separate working time from personal time.	0.114*	0.189**
I focus more on work than on personal activities.	0.057	0.127**
Have to work during the holidays.	0.096*	0.195**
I stay to work overtime.	0.057	0.148**
I answer work calls/letters even after work hours.	0.074	0.158**
I have to work on the weekends.	-0.024	0.099*
It is hard to combine work with other hobbies.	0.000	0.123**
Due to the long working hours, I am late for personal meetings.	0.083	0.164**
In my free time I have to answer work calls/e-mails.	0.097*	0.217**
My working hours lead to the conflicts in the family.	0.057	0.230**
Due to my working hours, my personal needs come second.	0.049	0.131**
Due to the busy work schedule, it is difficult to find time to care for relatives/visit parents.	0.075	0.140**
Long working hours make it difficult to meet family responsibilities.	0.102*	0.231**
Due to the long working hours, it is difficult to find time for friends and hobbies.	0.029	0.129**
Have to bring unfinished work home.	0.116*	0.222**

Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ .

The results of this study disclose quite similar results to other studies on the aspect of teleworking impact to work-life balance. It turned out that the working hours of employees take up personal

time. The results also show similar trends towards those having children as in previous studies (see for example, Çoban, 2021; Mendonça et al., 2022). As can be seen in Table 5, the consequences of teleworking on personal life are statistically significantly correlated with those having children group, as well as in the married group of respondents in general.

Looking at the mean values, work-life imbalances, as well as conflicts within the family due to extended working hours, are more common among married people. Single people report spending more time teleworking than in the office and report working on weekends. On the other hand, married individuals also report working after work hours. The intrusion of work into personal time, when working at home, is therefore a widespread problem.

Next, respondents' answers on the impact of teleworking on their subjective health was analyzed. It was found that as many as 46.1% of respondents often feel exhausted after work, while another 26.3% agree with this statement to some extent. Summing up, as many as 72.4% of respondents feel exhausted after a day of teleworking. In addition, the stressful pace of teleworking is tiring and makes 40.7% of respondents feel irritable.

Applying the Mann-Whitney U test to assess the impact of teleworking on health showed statistically significant results by gender (Table 6). Women are more likely to feel exhausted after work ( $p < 0.01$ ), but men are more likely to feel the psychological pressure of the surrounding environment due to long working hours ( $p = 0.014$ ). Women seem to feel more committed to their work. According to the data, women are more likely to feel psychological pressure if they leave unfinished tasks after the working day ( $p = 0.013$ ). Women are also more likely than men to be bothered by intrusive thoughts about work problems after working hours ( $p = 0.007$ ), and women are more likely than men to feel irritable due to the intensity of their work ( $p = 0.011$ ). A somewhat unexpected trend was also found. Women were significantly more likely than men to report the development or worsening of bad habits as a result of the stress of teleworking ( $p = 0.009$ ).

**Table 5.** The role of living arrangement in work-life balance

Source: Authors' compilation.

Statement	Living arrangement	N	Mean Rank	Kruskal-Wallis $\chi^2$	p (two-way)
I find it difficult to separate work time from personal time.	Married	241	242,71	9.764	0.021
	Single	77	235,99		
	In a committed relationship	125	210,66		
	Living with parents	16	160,88		
I focus more on work than personal activities.	Married	241	234,60	8.492	0.037
	Single	77	255,42		
	In a committed relationship	125	212,84		
	Living with parents	16	172,41		
I stay on to work overtime.	Married	241	241,52	10.889	0.012
	Single	77	237,81		
	In a committed relationship	125	213,87		
	Living with parents	16	144,91		
I answer work calls/emails after working hours.	Married	241	246,55	9.760	0.021
	Single	77	226,28		
	In a committed relationship	125	205,42		
	Living with parents	16	190,66		
I have to work weekends.	Married	241	233,64	9.089	0.028
	Single	77	249,27		
	In a committed relationship	125	222,02		
	Living with parents	16	144,81		
It is difficult to balance work with time for personal hobbies.	Married	241	234,80	9.749	0.021
	Single	77	248,40		
	In a committed relationship	125	220,68		
	Living with parents	16	141,97		
My work causes conflicts within my family.	Married	241	247,39	10.589	0.014
	Single	77	210,23		
	In a committed relationship	125	215,39		
	Living with parents	16	177,28		
Working hours put my personal needs in second place.	Married	241	238,10	7.935	0.047
	Single	77	243,98		
	In a committed relationship	125	214,53		
	Living with parents	16	161,50		
Long working hours make it difficult to meet family commitments.	Married	241	243,13	9.347	0.025
	Single	77	216,48		
	In a committed relationship	125	221,97		
	Living with parents	16	159,97		

Correlation analysis shows that respondents' self-reporting of health is more often related to having children than age. Only one statement was associated to the age of respondents, showing that the younger workers are more likely to develop/exacerbate harmful habits due to the stress experienced at work and at home ( $r = -0.096$ ,  $p < 0.05$ ).

Meanwhile, the fact of having children significantly influences the health of teleworkers. As the findings show, the respondents having children, in comparison to those not having, more often sacrifice their sleep time for unfinished works ( $r = 0.096$ ,  $p < 0.05$ ) and more often must deal with the dilemma of properly allocating time for work



**Table 6.** Impact of teleworking on subjective health. The evaluation of teleworking among genders

Source: Authors' compilation.

Statement	Gender	N	Mean Rank	Mann – Whitney U	p
I often feel exhausted after work.	Male	116	193.38	15646.00	0.000
	Female	359	254.42		
I feel psychological pressure from my family because of the long working hours.	Male	116	264.65	17731.00	0.014
	Female	359	229.39		
I feel psychological strain if I leave unfinished tasks after working hours.	Male	116	210.95	17684.00	0.013
	Female	359	246.74		
Due to teleworking, the stress at work and at home has led me to develop/worsen bad habits.	Male	116	209.91	17563.500	0.009
	Female	359	247.08		
Thoughts about work related problems are bothering me after working hours.	Male	116	208.87	17442.500	0.007
	Female	359	247.41		
The intensity of the work makes me feel irritable.	Male	116	210.13	17588.500	0.011
	Female	359	247.01		

and personal needs ( $r = 0.121$ ,  $p < 0.01$ ) (Table 7). They are also more likely to feel tense ( $r = 0.112$ ,  $p < 0.05$ ) and psychological pressure of the close environment due to the long working hours ( $r = 0.121$ ,  $p < 0.01$ ). Finally, the respondents who have children are more likely to feel guilty for spending little time with family ( $r = 0.190$ ,  $p < 0.01$ ).

Analysis of the survey data using the Kruskal-Wallis criterion revealed that the ratings of the impact of teleworking on health cannot be said to be significantly influenced by the respondents' living arrangement. A significant difference between the groups according to living arrangement emerged only in one aspect: respondents who are married are statistically significantly more likely to feel sad about the little time they spend with their relatives ( $p = 0.021$ ,  $p < 0.05$ ) (Table 8).

Lastly, respondents' answers to questions about the impact of teleworking on their work performance and productivity were analyzed. The results showed that more than half of the respondents (56.2%) thoughts wander around thinking about leisure during work. 36.1% of respondents admitted that they find it difficult to concentrate when working from home due to family commitments. On the other hand, almost half of the respondents reported that their family does not affect their ability to work, so it cannot be said that the family is one of the significant factors in their ability to work. Nevertheless, the aspect needs deeper sight as results of well-being and productivity are contradictory.

The results of correlation analysis show that having children ( $r = 0.336$ ,  $p < 0.01$ ) and older age ( $r$

**Table 7.** Impact of teleworking on health (age of respondents and having children)

Source: Authors' compilation.

Statement	Age r	Children R
Sometimes I sacrifice my sleep time for unfinished works.	-0.013	0.096*
Due to the long working hours I feel tense.	0.039	0.112*
Due to the long working hours, I feel the psychological pressure of the close environment.	0.089	0.192**
I often feel guilty for spending little time with family.	0.051	0.190**
I am constantly dealing with the dilemma of how to properly allocate time for work and personal needs.	-0.015	0.121**
Due to the stress experienced at work and at home, harmful habits have developed/exacerbated.	-0.96*	-0.049

Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ .

**Table 8.** Work-life balance impact on health depending on respondents' living arrangement

Source: Authors' compilation.

Statement	Living arrangement	N	Mean Rank	Kruskal-Wallis $\chi^2$	p (two-way)
I feel sad that I do not spend enough time with my family.	Married	241	242.45	9.713	0.021
	Single	77	221.84		
	In a committed relationship	125	221.92		
	Living with parents	16	144.81		

**Table 9.** Teleworking impact on work performance (by age and having children)

Source: Authors' compilation.

Statement	Age <i>r</i>	Children <i>r</i>
Family responsibilities makes it difficult to concentrate on work.	0.134**	0.336**
It is difficult to distance oneself from personal worries at work.	0.091*	0.211**
During work, I have sometimes to deal with personal matters.	0.088	0.131**
Due to the heavy workload, I am in conflict with my family/second half.	0.043	0.180**

Note: \* p < 0.05, \*\* p < 0.01.

= 0.134, p < 0.01) of respondents are associated with greater difficulty to concentrate at work due to family responsibilities. The study results also reveal that older respondents (r = 0.091, p < 0.05) and those having children (r = 0.211, p < 0.01) feel more difficulties to distance themselves from personal worries at work. Moreover, the respondents with children have more often to deal with person-

al matters during work (r = 0.131, p < 0.01) and are more often in conflict with their families due to the heavy workloads (r = 0.180, p < 0.01) (Table 9).

Applying the Mann-Whitney U criterion and analyzing the impact of teleworking on work performance, it is shown that men have more difficulty than women in concentrating on work due to fami-

**Table 10.** Impact of teleworking on working capacity (by gender)

Statement	Gender	N	Mean Rank	Mann-Whitney U	p
Working at home makes it difficult to concentrate on work because of family commitments.	Male	116	260.61	18199,00	0,038
	Female	359	230.69		
I'm late for meetings because of extended work activities.	Male	116	262.09	18027,500	0,027
	Female	359	230.22		

**Table 11.** Impact of teleworking on work performance (by living arrangement)

Statement	Living arrangement	N	Mean Rank	Kruskal-Wallis $\chi^2$	p (two-way)
Family commitments make it hard to concentrate on work.	Married	241	252.84	20.260	0.000
	Single	77	198.68		
	In a committed relationship	125	216.35		
	Living with parents	16	143.41		
It is hard to detach yourself from personal worries while working.	Married	241	243.32	12.590	0.006
	Single	77	226.53		
	In a committed relationship	125	219.11		
	Living with parents	16	131.09		
At work, personal matters sometimes need to be dealt with.	Married	241	238.33	8.572	0.036
	Single	77	216.78		
	In a committed relationship	125	232.71		
	Living with parents	16	146.97		

ly commitments when working at home ( $p = 0.038$ ), and they are less able to manage their personal workload and collaboration, they are late for meetings due to extended work ( $p = 0.027$ ) (Table 10).

The Kruskal-Wallis criterion was applied to the data analysis to identify statistically significant differences in work performance in different groups based on living arrangements (Table 11).

It was found that for married teleworkers it was statistically significantly more difficult to concentrate on work ( $p < 0.01$ ). It is also more difficult for married people to detach themselves from personal worries ( $p = 0.006$ ;  $p = 0.036$ ). Meanwhile, it is easier for single people to concentrate when working at home. Interestingly, both concentrating on work and getting away from personal worries were easiest for respondents living with their parents.

## 4. DISCUSSION

This study analyzes job attitudes of teleworkers when they work from home rather than in the office. The findings of this study support the claims in the literature that teleworking has a definite impact on employees' productivity, health, and work-life balance (whether positive or negative) when compared to on-site work. However, as the literature is full of conflicting claims regarding the role of telework on these aspects (Morikawa, 2022), this study approaches this problem by providing statistical insights into the changes in well-being, health, and productivity of office workers in Lithuania due to telework, profiling the respondents according to several characteristics, to better understand why some aspects of telework have a positive impact and others a negative impact on different people.

The results of this study only partially resonate with the evidence in the literature that teleworking has a negative impact on work-life balance (Benavides et al., 2021) and physical health (Tavares et al., 2020; Beckel & Fisher, 2022), relationships with loved ones (Ghislieri et al., 2021; Camacho & Barrios, 2022), etc., and that teleworking has a positive impact on productivity (Kawakubo & Arata, 2022; Bergeaud et al., 2022) or on workload (Shao et al., 2021). To draw clear, evidence-based conclusions about the impact of teleworking on workers' lives, which are lacking in the literature (Gragnano et al., 2020), it is necessary to examine the effects of teleworking not only as a whole or in general statements, but also to study the sample by profiling it according to certain characteristics such as age, gender, and whether they have spouses or children.

By examining the population through the lens of these elements, it can be seen that the impact of teleworking on workers' lives is much more multifaceted than is currently reported in the literature. The same aspects of teleworking are perceived differently by differently characterized workers. For example, although the working day tends to be longer than usual, employees with children were much more positive about their well-being when teleworking compared to working from an office. Meanwhile, from a gender perspective, men were more negative about their well-being when working remotely than women. These two insights alone call for a deeper correlational analysis to understand the complex relationships between worker characteristics/traits and teleworking-driven changes in work organization. Compared to the literature on similar topics, this study provides much deeper, evidence-based insights into the impact of certain employee characteristics/life details on the evaluation of telework as a form of work organization.

---

## CONCLUSION

The study revealed that teleworking during the pandemic has affected the well-being of office workers, especially in work-life balance. Work interfered with employees' personal time, the working day became longer, and time had to be allocated to also work on weekends. Meanwhile, personal needs became out of focus, opportunities to socialize with friends after work and to spend time on hobbies changed.

This study showed that men, rather than women, have a more negative perception of teleworking in the aspects of subjective well-being and self-reported work performance in Lithuania. When

working from home, men face challenges in family relationships, have more difficulty managing work-life balance, and find it harder to organize their work and collaborate with colleagues. On the other hand, women feel the negative impact of teleworking on their health much more than men. Moreover, children, age, and gender significantly affect self-reported health of teleworkers. Interestingly, the study revealed that women were more likely than men to succumb to harmful habits when worked at home during the pandemic. Also, younger age is an important factor in this regard.

Teleworking requires special attention from managers to the organization of employees' activities and workload control. When individuals work without managing working hours (it was revealed that exceeding the formal working hours was common to most of respondents), telework has a negative impact on the employees' health. Nevertheless, it cannot unambiguously be stated that the remote/home nature of work by itself has a negative effect as respondents were not asked if they feel healthier working extended workhours at the workplace compared to teleworking at home.

This study shows that the behavior of employees themselves, their psycho-emotional state, the age, and whether they have children to care in time of workday make critical challenges to the work performance when teleworking at home.

Finally, a new aspect of teleworking was identified: teleworkers living with their parents had the best self-reports in all three domains: well-being, health, and work performance. Thus, it is worthwhile to further investigate the preconditions and barriers to well-being and work productivity for teleworkers.

It should be noted that the results of this study are subject to the subjective assessment of the respondents. This is a major limitation of the study. It is possible that some information that was considered too sensitive by the respondents was left out. The objective health effects of teleworking could be measured by physical and mental health tests, and productivity could be measured by performance measurements, but they were not used in this study. Self-reporting is an important way to learn how the challenges of working at home are defined by employees themselves. Thus, this study can help companies improve their teleworking and hybrid working strategies.

## AUTHOR CONTRIBUTIONS

Conceptualization: Agota Giedrė Raišienė.

Data curation: Greta Masilionytė.

Formal analysis: Violeta Rapuano.

Investigation: Agota Giedrė Raišienė, Violeta Rapuano, Greta Masilionytė, Simonas Juozapas Raišys.

Methodology: Violeta Rapuano.

Project administration: Agota Giedrė Raišienė, Simonas Juozapas Raišys.

Resources: Agota Giedrė Raišienė, Violeta Rapuano, Greta Masilionytė, Simonas Juozapas Raišys.

Supervision: Agota Giedrė Raišienė.

Validation: Violeta Rapuano.

Visualization: Simonas Juozapas Raišys.

Writing – original draft: Agota Giedrė Raišienė, Violeta Rapuano, Greta Masilionytė, Simonas Juozapas Raišys.

Writing – review & editing: Agota Giedrė Raišienė.

## REFERENCES

1. Abdel Hadi, S., Bakker, A. B., & Häusser, J. A. (2021). The role of leisure crafting for emotional exhaustion in telework during the COVID-19 pandemic. *Anxiety, Stress, & Coping*, 34(5), 530-544. <https://doi.org/10.1080/10615806.2021.1903447>
2. Alcantara, S., & Flaminiano, J. P. (2022). *Gender, Telework, and Worker Welfare during the COVID-19 Pandemic* (AIM RSN PCC Discussion Paper, 1).
3. Andel, S. A., Shen, W., & Arvan, M. L. (2021). Depending on your own kindness: The moderating role of self-compassion on the within-person consequences of work loneliness during the COVID-19 pandemic. *Journal of Occupational Health Psychology*, 26(4), 276-290. <https://doi.org/10.1037/ocp0000271>
4. Aslan, M., Yaman, F., Aksu, A., & Güngör, H. (2022). Task performance and job satisfaction under the effect of remote working: Call center evidence. *Economics and Sociology*, 15(1), 284-296. <https://doi.org/10.14254/2071-789X.2022/15-1/18>
5. Bakaç, C., Zyberaj, J., & Barela, J. C. (2021). Predicting employee telecommuting preferences and job outcomes amid COVID-19 pandemic: A latent profile analysis. *Current Psychology*. <https://doi.org/10.1007/s12144-021-02496-8>
6. Bashir Khodaparasti, R., & Bagheri Garbollah, H. (2022). Antecedents and consequences of telecommuting on public organizations in Iran: The case of west Azerbaijan province. *Kybernetes*. <https://doi.org/10.1108/K-06-2021-0505>
7. Beckel, J. L. O., & Fisher, G. G. (2022). Telework and Worker Health and Well-Being: A Review and Recommendations for Research and Practice. *International Journal of Environmental Research and Public Health*, 19(7), 3879. <https://doi.org/10.3390/ijerph19073879>
8. Bergeaud, A., Cette, G., & Drapala, S. (2022). Telework and Productivity: Insights from a New Survey. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4015066>
9. Blahopoulou, J., Ortiz-Bonnin, S., Montañez-Juan, M., Torrens Espinosa, G., & García-Buades, M. E. (2022). Telework satisfaction, wellbeing and performance in the digital era. Lessons learned during COVID-19 lockdown in Spain. *Current Psychology*. <https://doi.org/10.1007/s12144-022-02873-x>
10. Bussin, M. H. R., & Swart-Op-perman, C. (2021). COVID-19: Considering impacts to employees and the workplace. *SA Journal of Human Resource Management*, 19. <https://doi.org/10.4102/sajhrm.v19i0.1384>
11. Camacho, S., & Barrios, A. (2022). Teleworking and technostress: Early consequences of a COVID-19 lockdown. *Cognition, Technology & Work*. <https://doi.org/10.1007/s10111-022-00693-4>
12. Çoban, S. (2022). Gender and telework: Work and family experiences of teleworking professional, middle-class, married women with children during the Covid-19 pandemic in Turkey. *Gender, Work & Organization*, 29(1), 241-255. <https://doi.org/10.1111/gwao.12684>
13. Dubey, A. D., & Tripathi, S. (2020). Analysing the Sentiments towards Work-From-Home Experience during COVID-19 Pandemic. *Journal of Innovation Management*, 8(1). [https://doi.org/10.24840/2183-0606\\_008.001\\_0003](https://doi.org/10.24840/2183-0606_008.001_0003)
14. Ginevičius, R., Trišć, R., Remeikienė, R., Zielińska, A., & Strikaitė-Latušinskaja, G. (2022). Evaluation of the condition of social processes based on qualitative methods: The COVID-19 case. *Journal of International Studies*, 15(1), 230-249. <https://doi.org/10.14254/2071-8330.2022/15-1/15>
15. Gragnano, A., Simbula, S., & Miglioretti, M. (2020). Work-Life Balance: Weighing the Importance of Work-Family and Work-Health Balance. *International Journal of Environmental Research and Public Health*, 17(3), 907. <https://doi.org/10.3390/ijerph17030907>
16. Hou, J., Liang, C., Chen, P.-Y., & Gu, B. (2022). Gender Heterogeneity in the Effect of Telework on Labor Market Outcomes during the COVID-19 Pandemic. *Hawaii International Conference on System Sciences*. <https://doi.org/10.24251/HICSS.2022.072>
17. Hu, X. (Judy), & Subramony, M. (2022). Disruptive pandemic effects on telecommuters: A longitudinal study of work-family balance and well-being during COVID-19. *Applied Psychology*, 12387. <https://doi.org/10.1111/apps.12387>
18. Huls, S. P. I., Sajjad, A., Kanters, T. A., Hakkaart-van Roijen, L., Brouwer, W. B. F., & van Exel, J. (2022). Productivity of Working at Home and Time Allocation Between Paid Work, Unpaid Work and Leisure Activities During a Pandemic. *PharmacoEconomics*, 40(1), 77-90. <https://doi.org/10.1007/s40273-021-01078-7>
19. Iddagoda, Y. A., & Opatha, H. H. D. N. P. (2020). Relationships and Mediating Effects of Employee Engagement: An Empirical Study of Managerial Employees of Sri Lankan Listed Companies. *SAGE Open*, 10(2), 215824402091590. <https://doi.org/10.1177/2158244020915905>
20. Jackson, L. T. B., & Fransman, E. I. (2018). Flexi work, financial wellbeing, work-life balance and their effects on subjective experiences of productivity and job satisfaction of females in an institution of higher learning. *South African Journal of Economic and Management Sciences*, 21(1). <https://doi.org/10.4102/sajems.v21i1.1487>
21. Jurek, P., Korjonen-Kuusipuro, K., & Olech, M. (2021). When technology use causes stress: Challenges for contemporary research. *Human Technology*, 17(3), 190-196. <https://doi.org/10.14254/1795-6889.2021.17-3.1>



22. Kawakubo, S., & Arata, S. (2022). Study on residential environment and workers' personality traits on productivity while working from home. *Building and Environment*, 212, 108787. <https://doi.org/10.1016/j.buildenv.2022.108787>
23. Keller, E., Widstrom, M., Gould, J., Fang, R., Davis, K. G., & Gillespie, G. L. (2022). Examining the Impact of Stressors during COVID-19 on Emergency Department Healthcare Workers: An International Perspective. *International Journal of Environmental Research and Public Health*, 19(6), 3730. <https://doi.org/10.3390/ijerph19063730>
24. Kotera, Y., Green, P., & Sheffield, D. (2020). Work-life balance of UK construction workers: Relationship with mental health. *Construction Management and Economics*, 38(3), 291-303. <https://doi.org/10.1080/01446193.2019.1625417>
25. Krisjane, Z., Berina, E. A., Berzins, M., Skadins, T., & Burgmanis, Ģ. (2020). Work-life balance during the Covid-19 outbreak: The case of Latvia. *Baltic Region*, 12(4), 39-60. <https://doi.org/10.5922/2079-8555-2020-4-3>
26. Kurowska, A. (2020). Gendered Effects of Home-Based Work on Parents' Capability to Balance Work with Non-work: Two Countries with Different Models of Division of Labour Compared. *Social Indicators Research*, 151(2), 405-425. <https://doi.org/10.1007/s11205-018-2034-9>
27. Lizana, P. A., & Vega-Fernandez, G. (2021). Teacher Teleworking during the COVID-19 Pandemic: Association between Work Hours, Work-Family Balance and Quality of Life. *International Journal of Environmental Research and Public Health*, 18(14), 7566. <https://doi.org/10.3390/ijerph18147566>
28. Lizana, P. A., Vega-Fernandez, G., Gomez-Bruton, A., Leyton, B., & Lera, L. (2021). Impact of the COVID-19 Pandemic on Teacher Quality of Life: A Longitudinal Study from before and during the Health Crisis. *International Journal of Environmental Research and Public Health*, 18(7), 3764. <https://doi.org/10.3390/ijerph18073764>
29. Lunau, T., Bambra, C., Eikemo, T. A., van der Wel, K. A., & Dragano, N. (2014). A balancing act? Work-life balance, health and well-being in European welfare states. *European Journal of Public Health*, 24(3), 422-427. <https://doi.org/10.1093/eurpub/cku010>
30. Lunde, L.-K., Fløvik, L., Christensen, J. O., Johannessen, H. A., Finne, L. B., Jørgensen, I. L., Mohr, B., & Vleeshouwers, J. (2022). The relationship between telework from home and employee health: A systematic review. *BMC Public Health*, 22(1), 47. <https://doi.org/10.1186/s12889-021-12481-2>
31. Mendonça, I., Coelho, F., Ferrajão, P., & Abreu, A. M. (2022). Telework and Mental Health during COVID-19. *International Journal of Environmental Research and Public Health*, 19(5), 2602. <https://doi.org/10.3390/ijerph19052602>
32. Morikawa, M. (2022). Work-from-home productivity during the COVID-19 pandemic: Evidence from Japan. *Economic Inquiry*, 60(2), 508-527. <https://doi.org/10.1111/ecin.13056>
33. Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed). McGraw-Hill.
34. Paniotto, V. I. (1984). *Programmoie obespecheniie prikladnykh sotsiologicheskikh i sotsialno-psikhologicheskikh issledovanii [Software of applied sociological and socio-psychological research]*. Kyiv: Znaniye. (In Russian).
35. Putri, A., & Amran, A. (2021). Employees' Work-Life Balance Reviewed from Work from Home Aspect During COVID-19 Pandemic. *International Journal of Management Science and Information Technology*, 1(1), 30. <https://doi.org/10.35870/ijmsit.v1i1.231>
36. Raišienė, A. G., Lučinskaitė-Sadovskienė, R., & Gardziulevičienė, L. (2021). Telework Experience of Pedagogues during the COVID-19 Pandemic: Strong Learning Seniors and Relaxed Leaders? *Education Sciences*, 11(10), 631. <https://doi.org/10.3390/educsci11100631>
37. Raišienė, A. G., Rapuano, V., Varkulevičiūtė, K., & Stachová, K. (2020). Working from Home – Who Is Happy? A Survey of Lithuania's Employees during the COVID-19 Quarantine Period. *Sustainability*, 12(13), 5332. <https://doi.org/10.3390/su12135332>
38. Remeikienė, R., & Bagdonas, A. (2021). COVID-19 effects on frontline professionals: A psychological aspect. *Economics and Sociology*, 14(3), 264-282. <https://doi.org/10.14254/2071-789X.2021/14-3/14>
39. Rietveld, J. R., Hiemstra, D., Brouwer, A. E., & Waalkens, J. (2021). Motivation and Productivity of Employees in Higher Education during the First Lockdown. *Administrative Sciences*, 12(1), 1. <https://doi.org/10.3390/admsci12010001>
40. Sarbu, M. (2018). The role of telecommuting for work-family conflict among German employees. *Research in Transportation Economics*, 70, 37-51. <https://doi.org/10.1016/j.retrec.2018.07.009>
41. Samoliuk, N., Bilan, Y., Mishchuk, H., & Mishchuk, V. (2022). Employer brand: key values influencing the intention to join a company. *Management & Marketing. Challenges for the Knowledge Society*, 17(1), 61-72. <https://doi.org/10.2478/mmcks-2022-0004>
42. Sârbu, M.-A., Mirea, C.-N., Mihai, M., Nistoreanu, P., & Dadfar, E. (2021). Teachers' and professors' perception of telework in Romania. *The Amfiteatru Economic Journal*, 23(58), 736-736.
43. Schieman, S., Badawy, P. J., A. Milkie, M., & Bierman, A. (2021). Work-life conflict during the COVID-19 pandemic. *Socius*, 7, 2378023120982856. <https://doi.org/10.1177/2378023120982856>
44. Shao, Y., Fang, Y., Wang, M., Chang, C.-H. (Daisy), & Wang, L. (2021). Making daily decisions to work from home or to work in the office: The impacts of daily work- and COVID-related stressors on

- next-day work location. *Journal of Applied Psychology*, 106(6), 825-838. <https://doi.org/10.1037/apl0000929>
45. Shava, H. (2021). The relationship between service quality and customer satisfaction in the South African mobile network telecommunications industry. *Journal of International Studies*, 14(2), 70-83. <https://doi.org/10.14254/2071-8330.2021/14-2/5>
46. Shi, X., Richards, M., Moudon, A. V., Lee, B. H. Y., Shen, Q., & Ban, X. (2022). Changes in Perceived Work-from-Home Productivity during the Pandemic: Findings from Two Waves of a Covid-19 Mobility Survey. *Findings*. <https://doi.org/10.32866/001c.32556>
47. Tavares, F., Santos, E., Diogo, A., & Ratten, V. (2021). Teleworking in Portuguese communities during the COVID-19 pandemic. *Journal of Enterprising Communities: People and Places in the Global Economy*, 15(3), 334-349. <https://doi.org/10.1108/JEC-06-2020-0113>
48. Tudy, R. A. (2021). From the corporate world to freelancing: The phenomenon of working from home in the Philippines. *Community, Work & Family*, 24(1), 77-92. <https://doi.org/10.1080/13668803.2020.1809994>
49. Tvaronavičienė, M., Mazur, N., Mishchuk, H., & Bilan, Y. (2021). Quality of life of the youth: assessment methodology development and empirical study in human capital management. *Economic Research-Ekonomska Istraživanja*, 1-18. <https://doi.org/10.1080/1331677X.2021.1956361>
50. Umishio, W., Kagi, N., Asaoka, R., Hayashi, M., Sawachi, T., & Ueno, T. (2022). Work productivity in the office and at home during the COVID-19 pandemic: A cross-sectional analysis of office workers in Japan. *Indoor Air*, 32(1). <https://doi.org/10.1111/ina.12913>
51. Yildirim, G. E. (2022). A New Style of Working: Imposed Teleworking in the Context of the covid-19 Pandemic. *Journal of Labor and Society*, 1-26. <https://doi.org/10.1163/24714607-bja10056>
52. Yildirim, T. M., & Eslen-Ziya, H. (2021). The differential impact of COVID-19 on the work conditions of women and men academics during the lockdown. *Gender, Work & Organization*, 28(S1), 243-249. <https://doi.org/10.1111/gwao.12529>