

# FACTORS HINDERING SELF-REPORTED EMPLOYEE PERFORMANCE DURING TELEWORK

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## ABSTRACT

*This quantitative study investigates the negative factors hindering self-reported employee performance during telework, with a primary focus on exhaustion and professional isolation. Data was collected from a sample of 801 full-time Romanian employees who performed telework for at least 20% of their weekly hours during the year before 2020. To ensure representativeness, a quota sampling method was applied. The findings reveal that socio-demographic variables operate intersectionally to shape an employee's exposure to these remote work challenges. Consequently, employees experiencing high levels of telework-induced exhaustion or professional isolation exhibit significantly lower technical and social performance. Therefore, this article aims to demonstrate that sustaining high employee performance in a remote environment is fundamentally dependent on actively protecting the psychological well-being of the workforce.*

**KEYWORDS:** teleworking, technical performance, social performance, telework exhaustion, professional isolation

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## 1. Introduction

The shift to remote work has completely changed how organizations operate. While working from home offers clear benefits, like more flexibility and no daily commute, it also brings hidden challenges. Two of the biggest problems are exhaustion and professional isolation. When the line between work and personal life disappears and face-to-face interactions

stop, employees can easily feel overwhelmed and disconnected. These issues threaten both their mental well-being and their daily productivity.

To better understand these challenges, this study explores the negative factors that lower employee performance during telework, focusing heavily on exhaustion and isolation.

Using data collected from remote workers, this paper has analysed three main directions. First, it looks at how socio-demographic factors (like age, gender, and living situation) combine to make an employee more likely to feel exhausted or isolated. Second, it measures how telework exhaustion directly hurts both technical and social performance. Third, it examines how the feeling of professional isolation causes a similar drop in performance. Ultimately, this research highlights one core truth: companies cannot expect high performance from remote teams in the long run unless they actively protect their employees' psychological well-being.

## **2. Literature Review**

The COVID-19 pandemic has brought major changes to the labor market, especially in terms of how people do their jobs. Thus, this pandemic was the moment when the idea of teleworking or remote work was increasingly implemented. With this sudden change, there was an increasing emphasis on the psychological well-being of employees, as the boundary between work and personal life began to disappear, and this fact contributed to psychological tension and decreased job satisfaction (De Sio et al., 2021; Giovanis et al., 2026; Shipman et al., 2023).

The experiences of employees who worked remotely during that period were not limited to how well companies managed to adapt to the new teleworking context, but also to the extent to which employees maintained social interaction and benefited from supportive environments from the organization (Giovanis et al., 2026; Kubilienė et al., 2021). Jobs characterized by a high level of social interaction mitigated burnout, while those with limited opportunities for interpersonal engagement were associated with a higher risk of depression and psychological distress (Giovanis et al., 2026). However, teleworking experiences

are not limited to the level of organizational support offered by the company in which employees work, but also to the personal characteristics of employees, thus emphasizing the socio-demographic factors that can influence teleworking experiences. Thus, several studies have argued that age, gender, and family status (e.g., employees with small children) lead to significant differences in emotional responses and wellbeing. During the pandemic, employees with small children faced higher irritability, tension, and exhaustion, though their sense of accomplishment was unchanged (Catană et al., 2022; Pataki-Bittó & Kun, 2022; Petcu et al., 2023; Dondapati et al., 2023). In addition, it was shown that women, especially working mothers, faced many more challenges when working remotely during the pandemic compared to men. This was due to gender inequalities in the distribution of household tasks. The study also showed that home isolation with minor children had a negative impact on women, but surprisingly, it had positive effects on men and their well-being (Escudero-Castillo et al., 2021). It is argued that this factor leads to a significant increase in anxiety among employees and to the fragmentation of attention that should be dedicated to the workplace (Raišienė et al., 2023; Tahlyan, 2022).

Other studies have shown that young workers, as well as those living alone, were more vulnerable during the pandemic restrictions. In the case of young people, an increase in workplace boredom and a decrease in professional engagement were observed, a phenomenon explained by the fact that they depend most on social relationships at the office. Similarly, employees living alone also reported increased levels of boredom and exhaustion, as they were unable to compensate for the lack of professional interactions with social contact in their own household (Kaltainen & Hakanen, 2022).

Research also highlights that the psycho-emotional state of staff is a key factor that directly influences the intellectual resources and quality of work in an organization. The experience of working from home has demonstrated that an increased level of occupational stress in the long term translates into severe consequences, such as mental and physical exhaustion and social deprivation (Raišienė et al., 2023). Thus, to evaluate the impact of these factors on the quality of remote work, the focus will be on two main concepts, namely technical performance (the degree of fulfillment of tasks specific to the job) and social performance (the quality of professional interactions), taken from specialized literature (Abramis, 1994). Although the scales developed by Abramis (1994) were originally designed to assess performance in the traditional work environment (office), the research team opted to use them in the context of teleworking for several strategic reasons. First, the dimensions identified by Abramis - technical performance and social performance - represent universal pillars of professional activity, independent of the physical space of deployment. However, their application in the current context required a recontextualization of the “social performance” dimension, to reflect forms of communication mediated by technology.

However, recognizing that telework introduces unique challenges that can mediate professional outcomes, our research team extended this model by including two additional dimensions, adapted to the remote work context: telework exhaustion and professional isolation.

### ***2.1. Telework-Related Exhaustion and Self-Reported Performance in Teleworking***

Telework exhaustion is predominantly conceptualized as a result of negative and prolonged stress. It involves

emotional exhaustion caused by job stressors specific to remote work (Van Slyke et al., 2022; Junça et al., 2024; Lyndon et al., 2024). This emotional exhaustion is a central component of burnout, often triggered by a combination of heavy workloads, professional isolation, the inability to mentally detach from work, and technology-related pressures (Van Slyke et al., 2022; Lyndon et al., 2024; Yasiroh & Suhada, 2025).

Furthermore, exhaustion in telework frequently stems from the constant overlap of professional and personal demands. When employees must manage both environments simultaneously, it often leads to cognitive overload, social isolation, and ultimately, a decline in job performance (Campo et al., 2021; Van Slyke et al., 2022). This stress worsens when employees are forced to spend more energy on coping mechanisms rather than focusing on their actual work tasks, further driving burnout and reducing work efficiency (Junça et al., 2024).

Research also highlights that emotional exhaustion is closely linked to intense professional isolation and high task interdependence. This was particularly evident when telework was mandatory rather than voluntary (Lyndon et al., 2024), such as during the COVID-19 pandemic. Building on this idea, to observe how employees self-assessed their telework exhaustion during the pandemic, the current study utilized a measurement scale previously tested and validated in the telework literature (Weinert et al., 2015).

Ultimately, emotional exhaustion is still a major issue for remote and hybrid workers. As a core element of burnout, it is significantly driven by blurred work-life boundaries, extended working hours, and profound feelings of isolation (Khalid & Naz, 2025).

## **2.2. Professional Isolation and Self-Reported Performance in Teleworking**

Occupational isolation is defined as a mental state in which the employee feels disconnected from others at work (Diekema, 1992). In the context of remote work, loneliness and the lack of direct communication remain among the most common complaints. Consequently, professional isolation has been directly associated with decreased job performance. Research indicates that this negative impact worsens the more time an employee spends working remotely; conversely, it can be mitigated by incorporating face-to-face interactions and utilizing communication-enhancing technologies (Golden et al., 2008; Spilker & Breugh, 2021).

This sense of isolation deeply affects the social dimension of work. Certain demographic groups, particularly people who live alone, are even more vulnerable to social isolation and a decline in emotional well-being (Tahlyan, 2022). Over time, this isolation makes employees feel as though they are no longer truly part of the organization, significantly eroding their commitment. Furthermore, relying exclusively on digital communication (such as emails) removes non-verbal cues like eye contact. This absence often generates misunderstandings, unjustified conflicts, and resentment between colleagues, ultimately damaging interpersonal relationships from a distance (Raišienė et al., 2023).

Beyond the social impact, isolation also creates significant barriers to technical performance. Physical distancing restricts quick access to information, requiring employees to invest extra time and effort to clarify tasks, which complicates the technical work process. Highlighting this issue, a study by Raišienė et al. (2023) found that 43% of respondents directly confirmed that professional isolation negatively affected the quality of their work. This dynamic was particularly evident during the COVID-19 pandemic,

where professional isolation was shown to increase employee cynicism, a factor that further mediated the negative relationship between isolation and task performance (Yu & Liu, 2023).

Finally, to accurately measure the degree of professional isolation experienced by the remote workers in this study, we utilized a validated scale adapted from the specialized literature (Golden et al., 2008).

In conclusion, these four dimensions - technical performance, social performance, telework exhaustion and professional isolation – allow for a nuanced analysis, correlating the quality of work not only with the employee's skills, but also with his or her well-being and the degree of connection with the organization. The rigor of this extended structure is confirmed by the reliability analysis (Table no. 1). The results indicate that both Abramis' established scales and the dimensions introduced by us present high internal consistency, as reflected by the Cronbach's Alpha coefficient. This robust methodological configuration allows us to evaluate telework performance from a holistic perspective, capturing both the productive output and the psychological or social price of flexibility.

## **3. Research Methodology**

Drawing upon the theoretical framework and the existing literature discussed previously, the following hypotheses were formulated to be empirically investigated using the collected data:

H1. Socio-demographic variables (gender, age, marital status, environment of origin, and the presence of minor children in the household) have a significant influence on the level of exhaustion and professional isolation experienced by employees who telework.

H2. Employees who experience high levels of telework exhaustion exhibit significantly lower technical and social performance.

H3. Employees who experience high levels of professional isolation in telework exhibit significantly lower technical and social performance.

This study targeted full-time Romanian employees who performed telework for at least 20% of their weekly hours (a minimum of 8 hours per 40-hour week) during the year before 2020. To ensure a representative sample, the researchers utilized a quota sampling method. The sampling quotas, such as age, gender, region, locality size, and industry, were established in accordance with the 2020 SNA Focus study, a national survey administered by the Romanian Joint Industry Committee for Print and Internet (BRAT) between June and December 2020.

Data were collected through a structured survey via a Romanian online access panel, more precisely on Daedalus Online, the most well-known and used in the country. To maintain balance, invitations were sent incrementally across all demographic groups, with real-time validation checks used to filter out inconsistent responses. While most quotas were strictly maintained, some were slightly relaxed toward the end of the fieldwork to meet the target sample size.

Therefore, the final sample consisted of 801 participants. The analyzed demographic sample presents a relatively balanced gender distribution, with a slight female majority (52% women compared to 48% men). In terms of age profile, the population predominantly consists of active working-age adults: the core group is represented by the 30-39 years old age bracket (41%), followed by the 40-49 years old (24%) and 21-29 years old (23%) segments, while individuals between 50 and 60 years old make up only 12% of the total. Geographically, there is a massive concentration of respondents in the capital, with Bucharest accounting for 41% of them. The remaining participants are distributed almost evenly across urban areas

(approximately 20% in large cities with over 200,000 inhabitants, 20% in medium-sized cities, and 19% in small urban localities with less than 50,000 inhabitants).

Regarding the activity domain, the labor market for this sample is dominated by three main sectors: Computers/IT/Telecommunications (18.7%), Education/Research (18%), and the Financial/Banking/Insurance sector (12.8%). The remaining professions are much more fragmented, covering areas such as Architecture/Consultancy/Public Administration (7.6%), Trade and Sales (7.3%), or Construction and Transportation (6.4%). Last but not least, the household structure analysis shows that over half of the respondents (51.8%) have no children in the household or did not mention this aspect. Among those with parental responsibilities, a significant share of 40.6% live with minor children (17 years old or younger), and only 7.6% share their home with adult children (18 years old or older).

#### 4. Measures

To develop the questionnaire, scales were adopted from the existing literature, having been previously employed to measure four dimensions: technical and social performance (Abramis, 1994), professional isolation (Golden et al., 2008) and telework-exhaustion (Weinert et al., 2015). While the number of items varied for each scale based on its original design, all constructs in the current study were measured using a 7-point Likert scale, ranging from 1 - "Totally disagree" to 7 - "Totally agree".

Technical performance dimension directly analyzes professional output and self-organization capacity. To operationalize this construct, we used the scale developed by Abramis (1994), consisting of 7 items, which provides a clear picture of technical and decision-making tasks: "*Handling the*

*responsibilities and daily demands of your work*" - measures the employee's ability to manage daily tasks and job requirements; *"Making the right decisions at work"* - reflects the discernment and competence to make correct decisions in the current activity; *"Performing your work-related duties without mistakes"* - evaluates the precision and accuracy with which tasks are performed; *"Getting things done on time"* - measures time efficiency and compliance with deadlines; *"Achieving your work objectives"* - indicates the extent to which the established professional objectives are achieved; *"Taking initiatives at your job"* - reflects the employee's proactivity and involvement in solving problems; *"Fulfilling the performance criteria demanded at your job"* - evaluates the compliance of the results with the performance standards of the organization. This dimension helps us demonstrate that employees maintain their technical efficiency in the remote work environment, providing a solid basis for combating managerial skepticism.

To measure social performance dimension, we used the scale developed by Abramis (1994), adapted to reflect the dynamics of interactions in teams that use technology-mediated communication. To operationalize this construct, we included a scale consisting of 3 items, which analyzes cooperation and conflict management skills at work: *"Getting along with others at work"* - measures the ability to maintain harmonious relationships and a positive atmosphere with colleagues; *"Avoiding arguing with others"* - reflects the ability to prevent conflicts and maintain a stable professional climate; *"Handling disagreements by compromising and meeting other people half-way"* - assesses emotional intelligence and negotiation skills in resolving disagreements. The use of this dimension confirms that while technical tasks are easier to standardize, social performance is more diverse and

reconfigures differently with the transition to telework.

Professional isolation dimension measures the degree to which the remote work environment affects social cohesion and professional development. To operationalize this construct, we used the scale developed by Golden et. al (2008) consisting of 6 items, which capture both the loss of emotional and informal support and the impact on career opportunities: *"I feel left out on activities and meetings that could enhance my career"* - measures the perception of exclusion from decision-making dynamics and professional visibility; *"I miss out on opportunities to be mentored"* - reflects the lack of access to knowledge transfer and guidance from superiors or senior colleagues; *"I miss face-to-face contact with co-workers"* - assesses the need for physical presence and direct communication; *"I feel isolated"* - measures the general state of isolation and disconnection felt by the employee; *"I miss the emotional support of co-workers"* - highlights the absence of moral support and team solidarity; *"I miss informal interactions with others"* - refers to the loss of spontaneous, water-cooler type discussions (for example, those during coffee breaks), which reinforce organizational culture. This dimension allows us to explain why, despite the increase in technical productivity, some employees experience a decrease in long-term job satisfaction.

To measure this psychological cost, we introduced the telework exhaustion dimension, which assesses the level of fatigue and physical or mental strain felt by employees. To operationalize this construct, we used the scale developed by Weinert et. al (2015) consisting of 4 items, which analyzes different facets of professional burnout in the home environment: *"I feel exhausted from working from home"* - measures the general state of exhaustion resulting from

professional activity carried out at home; “*I feel tired from working from home*” - captures the physical and mental fatigue accumulated during the work schedule; “*Working all day at home is a strain for me*” - reflects the tension and pressure exerted by the home space when it becomes the only workplace; “*I feel drained from working from home*” - evaluates the feeling of “drainage” of energy and lack of resources that the employee feels at the end of the day. This indicator allows us to correlate high technical performance with real employee attrition.

To process the data and conduct the statistical analyses, IBM SPSS Statistics (Version 26) was used. Furthermore, the graphical representations and data visualizations were generated utilizing both IBM SPSS and Microsoft Excel.

## 5. Results

In accordance with the recommendations in the specialized literature on empirical research in the social sciences, the assessment of the reliability of the instruments was based on the calculation of the Cronbach’s alpha coefficient. We used this indicator because it is the established standard, considered the most appropriate for the volume and type of data collected, but also because the main scales are already validated in the international literature, and their internal consistency was successfully confirmed in this study. Although advanced literature suggests the additional use of composite reliability and average variance extracted indicators, for the objectives of the present research, the Cronbach’s alpha coefficient provides an adequate and sufficient measure of the internal consistency of the scales.

The results are presented in the table below.

**Table no. 1**  
*Reliability analysis of measurement scales*

| Concept                | Cronbach’s Alpha | Corrected Item-Total Correlation |
|------------------------|------------------|----------------------------------|
| Technical Performance  | .921             | .693 - .786                      |
| Social Performance     | .710             | .475 - .564                      |
| Telework Exhaustion    | .955             | .849 - .909                      |
| Professional Isolation | .883             | .614 - .761                      |

All four scales demonstrate very good and adequate reliability (internal consistency). The Cronbach’s alpha coefficients for all constructs exceed the 0.70 threshold, considered an adequate level for scales utilized in confirmatory research (Garson, 2013). As for the corrected item-total correlation, the results confirm the solidity of every question in the questionnaire. Specialized literature recommends that these values should not drop below the critical threshold of 0.30, because lower values indicate that a specific item does not correlate well with the overall scale score, prompting its potential removal (Field, 2024). Every item contributes in a

relevant and positive way to the evaluation of its construct (making it unnecessary to eliminate any question to increase reliability), and internal consistency is demonstrated for the entire model (see Table no. 1).

Afterwards, upon confirming the reliability of the measurement tool, the items of each scale were transformed into a continuous variable by computing the mean score for each respondent. This transformation will aid in the further analysis of the data. This step allowed us to move forward with the data analysis and test the following hypotheses:

**H1. Socio-demographic variables (gender, age, marital status, environment of origin, and the presence of minor children in the household) have a significant influence on the level of exhaustion and professional isolation experienced by employees who telework**

In this analysis, telework exhaustion and professional isolation were treated as continuous variables. The results demonstrate that telework exhaustion is a multidimensional phenomenon. Initial statistical tests (Independent Samples T-Test) showed that individual socio-demographic variables did not produce

significant direct differences in exhaustion levels. Therefore, an Analysis of Variance (ANOVA) was conducted to explore potential interaction effects between these variables when combined in a multiple-variable model.

The model initially included gender, age, relationship status, environment of residence, and the presence of minor children at home. The ANOVA revealed significant interactions between gender and several other variables like age ( $p = .025$ ), environment of residence ( $p = .035$ ) and the presence of children under 17 y.o. in the household ( $p = .016$ ).

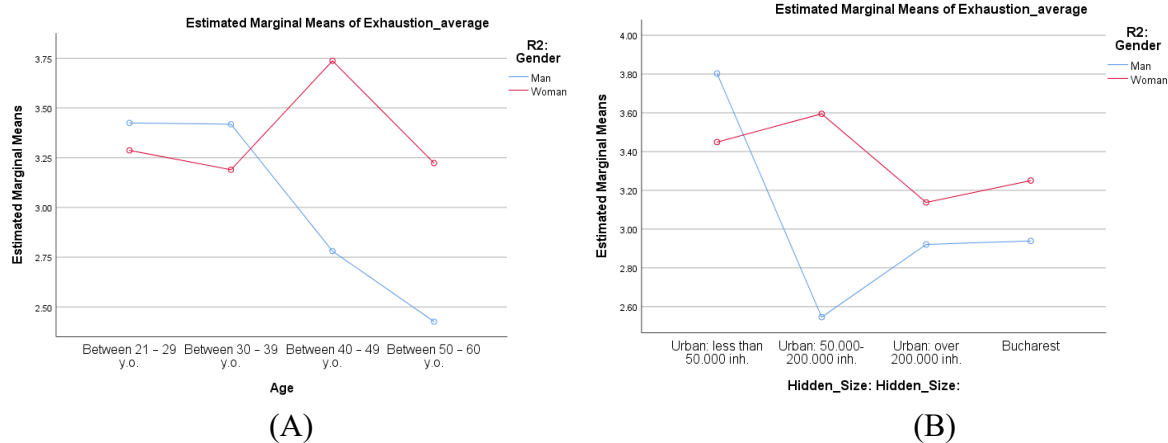


Figure no. 1: *Interaction effect of age, environment of residence and gender on telework exhaustion*

(Source: Own processing based on collected data)

In Figure no. 1, Panel A shows that the analysis reveals a specific vulnerability for women aged 40 to 49. While men's telework exhaustion decreases linearly as they get older, mid-career women face an increase in exhaustion. This points to a potential overlap of professional tasks with the personal or family pressures typical of this life stage.

In Panel B of the same figure, the environment of residence acts as a

moderator. Women experience significantly higher telework exhaustion in medium and small cities, while men are much more vulnerable at exhaustion in small urban settings. This discrepancy may be driven by fewer economic opportunities or poorer technical infrastructure in these areas. When analysing the Bucharest area, data indicates that women are more susceptible to telework exhaustion than men.

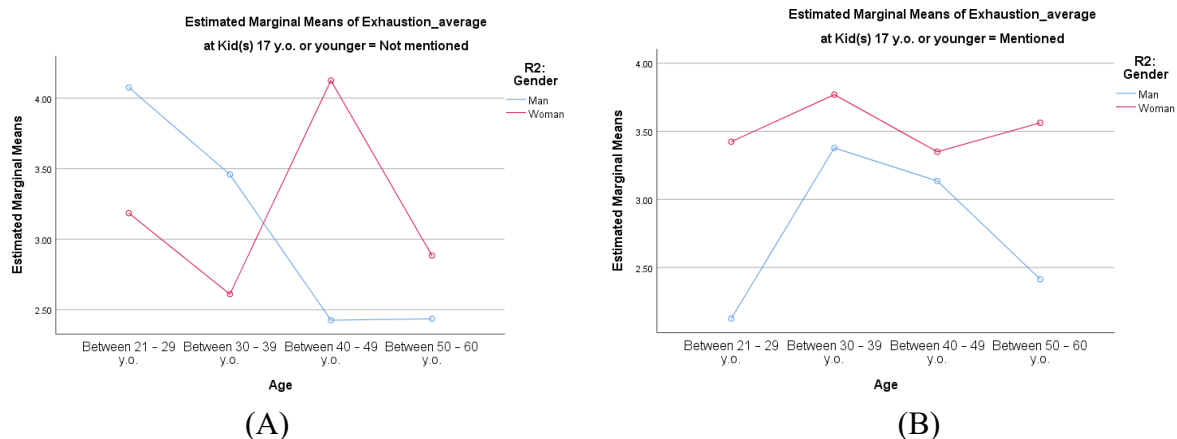


Figure no. 2: *Interaction effect of age, gender and the presence of children under 17 y.o. in the household on telework exhaustion*  
(Source: Own processing based on collected data)

Figure no. 2 is divided into two panels. Panel A illustrates the situation where respondents do not have children under 17 living with them at the time of the study. In this scenario, young men (aged 21-29) report high levels of exhaustion, which gradually decrease as they age. Conversely, women without children in the 40-49 age bracket exhibit a significant peak in exhaustion. This may indicate a fear of falling behind professionally, other family-related responsibilities, or taking on heavy workloads while teleworking.

Panel B presents the situation where there are children under 17 in the household. The graph shows that, regardless of their age, women experience significantly higher exhaustion levels compared to men in this context. This three-way interaction demonstrates the unequal impact of parenting responsibilities. For women, the presence of children under 17 y.o. acts as a chronic exhaustion or throughout their active working years, maintaining high average exhaustion levels across all age groups. In contrast, young fathers report very low levels of telework exhaustion, suggesting a profound inequality in the distribution of domestic and caregiving tasks during remote working hours.

Ultimately, these findings demonstrate that socio-demographic variables do not act as independent factors in determining telework exhaustion levels rather, they operate intersectionally. Although gender alone does not produce statistically significant differences overall, it becomes a critical predictor of exhaustion vulnerability when we analysed it in conjunction with variables such as age, environment of residence, and parental responsibilities.

Regarding professional isolation, it does not have an impact on employees depending on their gender. In the case of professional isolation, the constant distancing from work colleagues generates the same level of professional loneliness.

In the case of professional isolation, the data look different compared to exhaustion. Analysis of variance (ANOVA) demonstrates that professional isolation in teleworking is an experience that is not significantly influenced by the gender of the respondents or by family responsibilities (all interaction effects involving gender have  $p > 0.05$ , that means they are not statistically significant interactions). Furthermore, in the case of the ANOVA analysis for professional isolation, it was demonstrated that it is influenced by several factors related to the social network and the physical work environment of the

employee. Thus, the only significant interaction effect identified is that between age, size of the locality of residence and marital status ( $p = 0.013$ ). This suggests that the feeling of professional isolation is influenced by the quality of social infrastructure (provided by the social

environment in which the employee lives), direct socio-emotional support (marital status) and the age of the respondent.

Regarding the graphs below, we can also observe how these interactions influence each other.

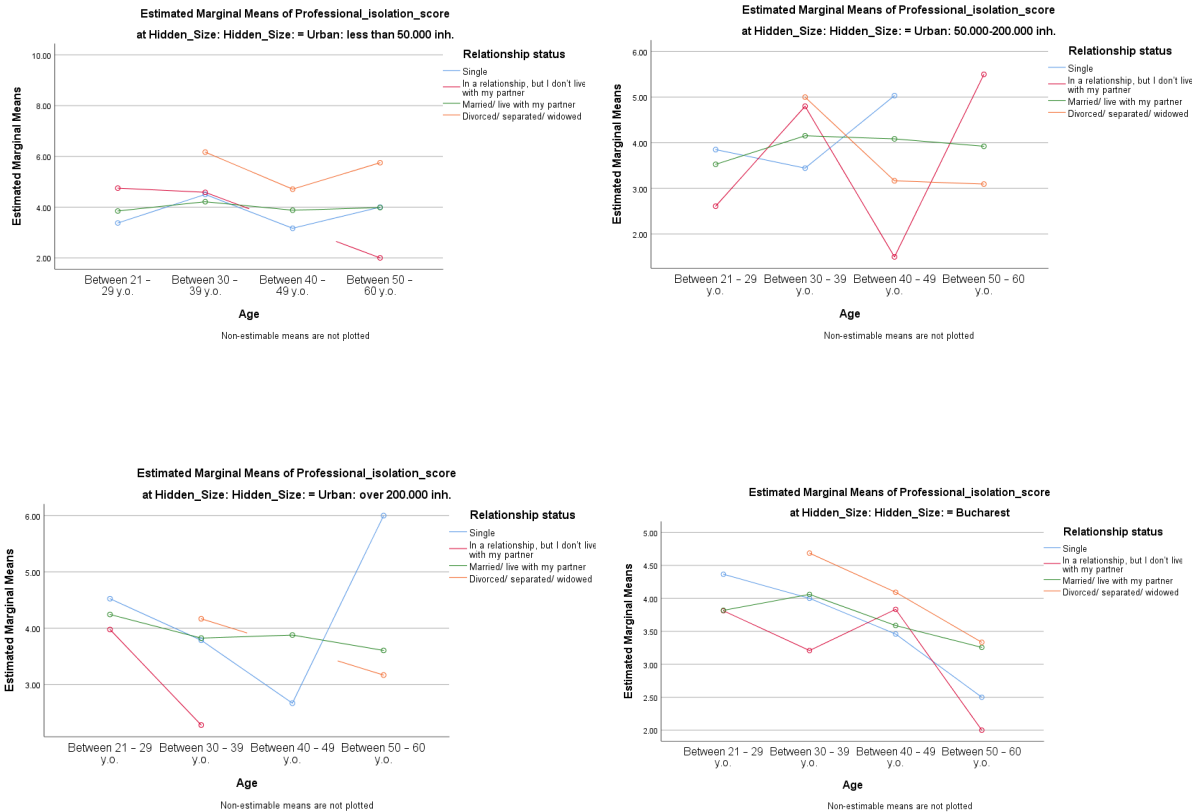


Figure no. 3: *Interaction effect of relationship status, age and environment of residence on professional isolation*  
(Source: Own processing based on collected data)

From the 4 graphs above (see Figure no. 3), an important and interesting element to note is the green line, which refers to the category of people in the sample who are married or live with a partner. It can be seen that regardless of age and regardless of whether they live in a small town or in Bucharest, people who share a house with a partner have a moderate and stable level of professional isolation (an almost straight line, generally located around 3.5-4). This fact may show that the physical presence of the partner in the house acts as a psycho-social aid. Teleworking does not isolate them very much, because the basic need for human

interaction is covered in the home environment. Another important aspect that can also be noted within the 4 graphs is the orange line, specific to divorced/separated or widowed people. In several graphs (especially in small and medium-sized cities), these people report a massive peak of isolation in the 30-39 age range. This is the period in which separation usually occurs, and teleworking accentuates the feeling of sudden loneliness (without physical colleagues to provide moral support).

In graph 3, it can be observed that people who live in cities with over 200,000 inhabitants and are single and also have

advanced ages (between 50 and 60 years old) experience the highest degree of professional isolation, their average score being 6. Thus, it can be argued that in a large city, being alone, at a pre-retirement age and working exclusively from home is a sure recipe for extreme professional isolation. The lack of an office limits these people probably their only major social network.

As for the graph specific to the Bucharest area, we note that it is totally different from the rest of the graphs. Here the feeling of professional isolation tends to decrease with age. Young singles (21-29 years old) have the highest degree of isolation (score above 4), and as they get older, their isolation decreases (reaching 2.5 at 50-60 years old). This result is due to the fact that Bucharest attracts many young people at the beginning of their careers who have moved alone, live in rented accommodation and work remotely. For them, teleworking is very isolating because they have not yet formed networks of friends in the new city. As they get older, they build an active social life, and the sentimental isolation decreases.

Unlike teleworking exhaustion, which is moderated by gender and parental responsibilities, professional isolation is dictated by the complex interaction between the social infrastructure of the urban environment, age and marital status.

The data show that respondents who are married or living with a partner report constant and moderate levels of professional isolation, regardless of age or city. In contrast, the maximum vulnerability is observed among single respondents, but with opposite manifestations depending on the environment: in Bucharest, young singles (21-29 years old) are the most exposed to isolation (probably due to relocation and lack of social networks), while in the rest of the large urban areas (over 200,000 inhabitants), teleworking generates a feeling of professional isolation for single respondents in the 50-60 age group.

In conclusion, hypothesis 1 is empirically supported, since the socio-demographic profile has a demonstrable influence on the levels of telework exhaustion and professional isolation.

## **H2. Employees who experience high levels of telework exhaustion exhibit significantly lower technical and social performance.**

Telework exhaustion was measured using the battery also used by Weinert et al. (2015). Items were measured on 7-point scale going from 1 – Totally disagree with the statement to 7 – Totally agree with the statement. Higher scores indicate a higher level of self-reported work-related exhaustion when working from home.

In Figure no. 4. Panel A, we can observe that employees who work from home report an average of 3.19 across the four items that measure telework exhaustion. Generally, close to a third of the employees fully disagree with each of the four statements, while less than one in ten fully agree with them. Although a third of employees do not experience exhaustion at all, the overall average of 3.19 indicates that the attitude tends towards a slight lack of exhaustion when working from home, falling quite close to a neutral zone.

Furthermore, regarding the respondents' technical performance, they reported positive self-evaluations across all measured dimensions. Technical performance was assessed using seven distinct items on a 7-point scale, ranging from 1 ("Very poorly") to 7 ("Very well"). Overall, the descriptive statistics indicate a highly confident workforce, with average scores near the top of the scale (ranging from a mean of 5.82 to 6.24).

A closer examination of the frequency distributions demonstrate that the vast majority of employees rate their technical execution very favourably, with responses concentrated in the positive spectrum (scores of 5, 6, and 7). The highest self-ratings were observed in

*“Fulfilling the performance criteria demanded at your job”* (Mean = 6.24) and *“Handling the responsibilities and daily demands of your work”* (Mean = 6.23). For both of these foundational items, more than half of the sample (51.6% and 52.6%, respectively) selected the maximum possible score (“Very well”).

Respondents also felt highly capable of executing their tasks reliably and efficiently. Approximately 90% of the sample scored 5 or above on *“Getting things done on time”* (Mean = 6.11) and *“Performing work-related duties without mistakes”* (Mean = 6.02).

The lowest average score among the technical performance items, but still positive was recorded for *“Taking initiatives at your job”* (Mean = 5.82). While 39.6% of respondents still felt they did “Very well” in this area, there was a slightly higher concentration of neutral responses compared to the other items, with 12.5% selecting “Neither poorly, nor well”. Despite this minor variation in proactive behavior, negative evaluations (scores of 1 to 3) remained extremely low across the board, rarely exceeding 5% for any single technical performance item.

Also, in terms of social performance, respondents similarly displayed positive self-evaluations, although with slightly more variation compared to their technical

performance. The data indicates that employees generally perceive themselves as highly capable of maintaining harmonious workplace relationships. For instance, the items *“Getting along with others at work”* and *“Avoiding arguing with others”* have high mean scores of 6.09 and 6.04, respectively. For both of these indicators, approximately half of the surveyed employees (49.9% and 50.3%) gave themselves the highest possible rating (“Very well”), demonstrating strong confidence in their baseline interpersonal interactions.

However, the frequency distributions reveal a nuanced perspective regarding active conflict resolution. The item *“Handling disagreements by compromising and meeting other people half-way”* recorded a notably lower mean score (Mean = 5.44) compared to the rest of the social and technical performance metrics. While the overall attitude remains positive, with over 70% of the sample scoring 5 or above, there is a visible shift towards the center of the scale. Specifically, one in five employees (20.1%) selected the neutral option (“Neither poorly, nor well”), and only 28.3% evaluated their compromising skills as “Very well”. This suggests that while teleworking employees find it relatively easy to avoid interpersonal conflict, but find it more difficult to negotiate and reach a compromise.

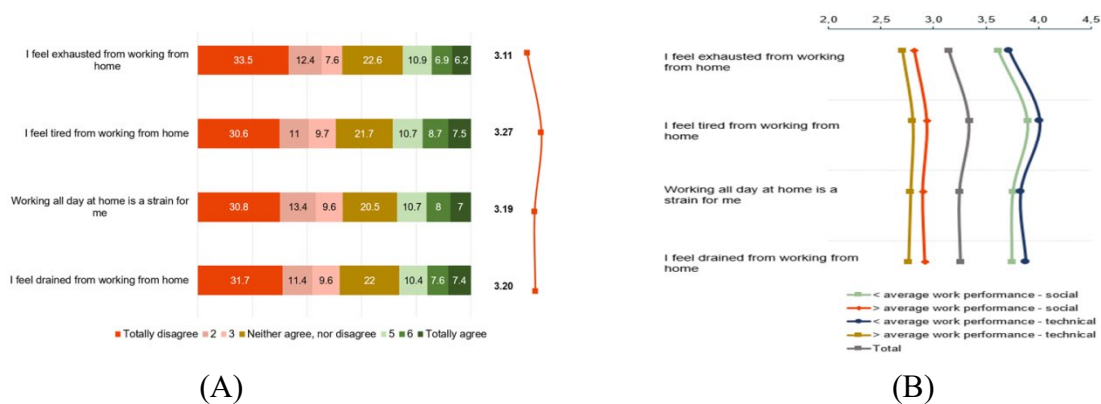


Figure no. 4: Telework enabled exhaustion % and averages of items measuring telework-enabled exhaustion by self-reported job performance when teleworking (Source: Own processing based on collected data)

Having described the levels of exhaustion associated with teleworking, as well as respondents' evaluations of their technical and social performance, the next step is to understand the practical implications for employee outcomes. Specifically, to test H2, an independent-samples t-test was conducted to determine whether differing levels of exhaustion significantly impact these two dimensions of performance.

This is why, before performing these statistical analyses, each of the two types of performance were transformed into continuous variables. From the newly created variables, two other discrete variables were created, with two categories (below average responses and above average responses for both types of performance). In the case of technical performance, the average of answers was 6.06 and for social performance, average was 5.85.

First, an independent samples T-test was performed to compare the level of exhaustion reported by participants with below-average social performance to those with above-average social performance. Since Levene's test indicated that the homogeneity of variances assumption was not satisfied for all items, the t-test statistics for unequal variances were reported. The findings showed highly statistically significant differences between the two groups on all four indicators intended to measure exhaustion ( $p < .001$ ). Specifically, respondents with below-average social performance (see Figure no. 4, Panel B) reported a higher level of exhaustion, feeling significantly more exhausted ( $M = 3.60$ ,  $SD = 1.81$ ), more tired ( $M = 3.83$ ,  $SD = 1.86$ ), more under pressure at home ( $M = 3.71$ ,  $SD = 1.83$ ), and more drained ( $M = 3.73$ ,  $SD = 1.85$ ) compared to participants with higher social performance, whose scores were significantly lower on all four dimensions ( $p$  values  $< 0.001$ ).

Secondly, the same independent samples T-test was performed, but this time for technical performance, also with the aim of comparing the level of exhaustion felt by participants with below-average technical performance, compared to those with above-average technical performance. Since the Levene test indicated a violation of the assumption of homogeneity of variances for all analysed items ( $p$  values  $< 0.05$ ), the t-test values without assuming equal variances were reported.

The results demonstrated the existence of highly statistically significant differences between the two groups for all four state indicators ( $p < 0.001$ ). Specifically, participants who recorded a below-average technical performance reported much higher levels of exhaustion and pressure, thus they felt significantly more exhausted ( $M = 3.74$ ,  $SD = 1.75$ ), more tired ( $M = 3.99$ ,  $SD = 1.77$ ), perceived working from home as representing a pressure ( $M = 3.83$ ,  $SD = 1.79$ ) and felt more drained of energy ( $M = 3.90$ ,  $SD = 1.78$ ). In contrast, employees with above-average technical performance obtained significantly lower scores on all these indicators related to professional exhaustion ( $M = 2.62$ ,  $M = 2.71$ ,  $M = 2.69$ , and  $M = 2.66$ , respectively; for all comparisons  $p < 0.001$ ).

In conclusion, the hypothesis is confirmed, since employees in the low-performance groups (below average, both technical and social) recorded the highest burnout scores (mean values between 3.60 and 3.99), while employees in the high-performance groups (above average) reported the lowest burnout scores (mean values between 2.62 and 2.89).

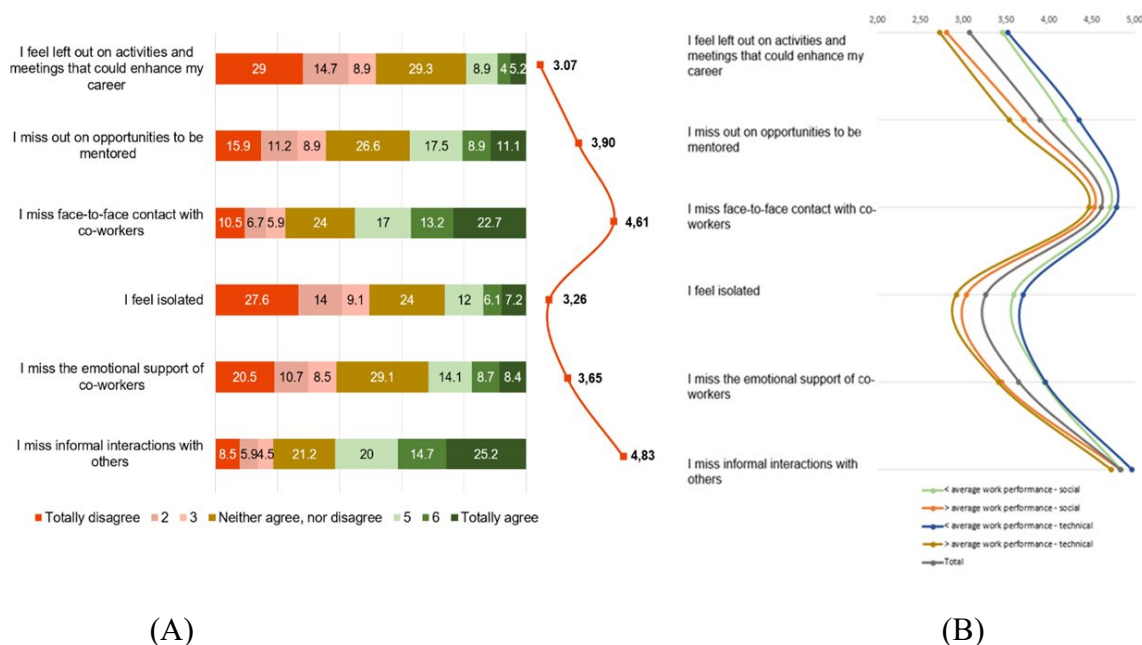
### **H3. Employees who experience high levels of professional isolation in telework exhibit significantly lower technical and social performance.**

Professional isolation among teleworkers was assessed using the measurement scale developed by Golden

et al. (2008). Items were measured on 7-point scale going from 1 – Totally disagree with the statement to 7 – Totally agree with the statement. Higher scores indicate a higher level of self-reported professional isolation when teleworking.

Figure no. 5, Panel A demonstrates that the highest averages and those that exceed the neutral threshold of 4 are those related to the need for human contact. The biggest problem felt by people in the sample is the lack of informal interactions with the rest of the employees. More than a

quarter of the respondents completely agree, while 60% of the respondents tend to agree based on this statement. At the same time, the item measuring face-to-face contact with colleagues recorded an average of 4.61. This aspect demonstrates that employees miss spontaneous conversations and in-person peer interaction. Thus, it can be argued based on the graph below that teleworking restricts informal social connections but has not removed the activities that are important for their careers.



(A) (B)  
Figure no. 5: Professional isolation in telework % and averages of items measuring professional isolation by self-reported job performance when teleworking  
(Source: Own processing based on collected data)

To test the hypothesis regarding how professional isolation manifests itself in relation to the technical and social performance of teleworking employees, Independent Samples T-Tests were conducted. Similar to the methodological approach applied for telework exhaustion, performance was seen as a discrete variable with 2 categories for the social and technical ones.

The first T-Test aimed to present the differences in the perception of professional isolation between participants with below-

average social performance and those with above-average social performance. Levene's test indicated a violation of the assumption of homogeneity of variances for all six analysed indicators (all  $p$ -values  $< 0.05$ ), which is why the t-test results adjusted for unequal variances (equal variances not assumed) were interpreted. The analysis revealed a mixed situation. On the one hand, highly statistically significant differences ( $p < 0.001$ ) were identified for four of the six isolation indicators. More precisely, employees with

below-average social performance experience professional isolation much more acutely (see Figure no. 5, Panel B). In other words, they feel significantly more excluded from activities and meetings that could improve their careers ( $M = 3.46$ ,  $SD = 1.66$ , compared with  $M = 2.81$ ,  $SD = 1.80$ ), believe to a greater extent that they miss out on mentoring opportunities ( $M = 4.18$ ,  $SD = 1.64$  compared with  $M = 3.71$ ,  $SD = 1.98$ ), feel more isolated overall ( $M = 3.59$ ,  $SD = 1.79$  compared with  $M = 3.04$ ,  $SD = 1.94$ ), and feel the lack of emotional support from colleagues more strongly ( $M = 3.94$ ,  $SD = 1.72$  compared with  $M = 3.45$ ,  $SD = 1.93$ ).

On the other hand, the results did not indicate statistically significant differences between the two groups regarding the lack of face-to-face contact with colleagues ( $p = 0.161$ ) and the lack of informal interactions ( $p = 0.905$ ). Thus, it can be stated that although working from home cut off physical interactions equally for everyone, those with poor social performance turned this lack into an acute feeling of exclusion, while high performers managed to adapt better.

The second T-Test aimed to examine the teleworking employees' perception of professional isolation and what impact this aspect had on their own technical performance. Because Levene's test indicated the violation of the homogeneity of variances assumption for absolutely all six analysed indicators (all  $p$ -values  $< 0.05$ ), the t-test results adjusted for unequal variances (equal variances not assumed) were reported and interpreted.

The data analysis demonstrated that the two groups differed significantly across five of the six professional isolation indicators. Employees with below-average technical performance reported a significantly more pronounced feeling of isolation and professional disconnection compared to high performers (see Figure no. 5, Panel B). More precisely, employees

in the low technical performance group feel much more excluded from activities that could improve their careers ( $M = 3.52$ ,  $SD = 1.65$  compared with  $M = 2.73$ ,  $SD = 1.79$ ,  $p < 0.001$ ), miss out on mentoring opportunities to a greater extent ( $M = 4.35$ ,  $SD = 1.61$  compared with  $M = 3.54$ ,  $SD = 1.97$ ,  $p < 0.001$ ), experience stronger overall isolation ( $M = 3.70$ ,  $SD = 1.73$  compared with  $M = 2.92$ ,  $SD = 1.95$ ,  $p < 0.001$ ), and miss the emotional support of colleagues more ( $M = 3.96$ ,  $SD = 1.67$  compared with  $M = 3.41$ ,  $SD = 1.96$ ,  $p < 0.001$ ). Interestingly, unlike the results obtained for social performance, a significant difference was also identified regarding the lack of face-to-face contact with colleagues ( $p = 0.018$ ), with lower technical performance employees experiencing this shortcoming more acutely ( $M = 4.79$ ) than the high performers ( $M = 4.47$ ).

The only indicator that did not show statistically significant differences was the lack of informal interactions ( $p = 0.069$ ). For both groups, the means were very high ( $M = 4.97$  and  $M = 4.73$ , respectively), suggesting that the loss of informal interactions is a major drawback of working from home, felt equally intensely by all employees, regardless of their technical skills level.

In conclusion, hypothesis 3 is empirically supported, demonstrating that higher levels of perceived professional isolation are significantly associated with lower technical and social performance among teleworkers.

## 6. Conclusions

The present research aimed to analyze the negative factors hindering employee performance in the context of remote work, focusing on the role of exhaustion and professional isolation. Based on the conducted statistical analyses, the study generated a series of important, empirically validated conclusions that respond to the formulated working hypotheses.

First, regarding Hypothesis 1, the research highlighted the fact that in this case, socio-demographic variables do not act as independent factors but operate in an intersectional manner in determining the levels of exhaustion and professional isolation. Exhaustion is determined by the conjunction of gender, age, environment, and the presence of children under 17 in the household, while professional isolation is affected by the intersectionality of the environment of residence, age, and relationship status.

Second, the results confirmed Hypothesis 2, highlighting the direct impact of fatigue on workplace efficiency. Although, at the level of the entire sample, the average level of exhaustion was below the neutral threshold (indicating a moderate state of well-being), testing the hypothesis clearly demonstrated that those employees who experience high levels of telework-associated exhaustion exhibit significantly lower technical and social performance compared to their peers who are less affected by stress.

Third, the study provided solid evidence in support of Hypothesis 3, demonstrating that professional isolation is

a critical risk factor for performance. The data showed that employees who report high levels of professional isolation also exhibit a significant decrease in technical and social performance.

These conclusions highlight an essential idea related to the fact that telework performance cannot be sustained in the long term without protecting the psychological well-being of the employees.

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### Author Contributions

Conceptualization, R.E.D., R.F.S. and Ş.K.; methodology, R.E.D. and R.F.S.; validation, R.F.S. and Ş.K.; formal analysis, R.E.D. and R.F.S.; investigation, R.E.D., R.F.S. and Ş.K.; resources, R.E.D.; data curation, R.E.D. and Ş.K.; writing—original draft preparation, R.E.D.; writing—review and editing, R.E.D., R.F.S. and Ş.K. All authors have read and agreed to the published version of the manuscript.

## REFERENCES

- Abramis, D.J. (1994). Relationship of Job Stressors to Job Performance: Linear or an Inverted-U? *Psychological Reports*, 75(1), 547-558. Available at: <https://doi.org/10.2466/pr0.1994.75.1.547>.
- Campo, A.M.D.V., Avolio, B., & Carlier, S.I. (2021). The Relationship Between Telework, Job Performance, Work–Life Balance and Family Supportive Supervisor Behaviours in the Context of COVID-19. *Global Business Review*, 09721509211049918. Available at: <https://doi.org/10.1177/09721509211049918>.
- Catană, Ş.-A., Toma, S., Imbrişcă, C., & Burcea, M. (2022). Teleworking Impact on Wellbeing and Productivity: A Cluster Analysis of the Romanian Graduate Employees. *Frontiers in Psychology*, 13. Available at: <https://doi.org/10.3389/fpsyg.2022.856196>.
- De Sio, S., Cedrone, F., Nieto, H.A., Lapteva, E., Perri, R., Greco, E., Mucci, N., Pacella, E., & Buomprisco, G. (2021). Telework and its effects on mental health during the COVID-19 lockdown. *European Review for Medical and Pharmacological Sciences*, 25(10), 3914-3922. Available at: [https://doi.org/10.26355/eurrev\\_202105\\_25961](https://doi.org/10.26355/eurrev_202105_25961).
- Diekema, D.A. (1992). Aloneness and Social Form. *Symbolic Interaction*, 15(4), 481-500. Available at: <https://doi.org/10.1525/si.1992.15.4.481>.

Escudero-Castillo, I., Mato-Díaz, Fco. J., & Rodriguez-Alvarez, A. (2021). Furloughs, Teleworking and Other Work Situations during the COVID-19 Lockdown: Impact on Mental Well-Being. *International Journal of Environmental Research and Public Health*, 18(6), 2898. Available at: <https://doi.org/10.3390/ijerph18062898>.

Field, A. (2024). *Discovering statistics using IBM SPSS statistics (6th edition)*. Sage Publications Ltd.

Garson, G.D. (2013). *Validity & Reliability*. Asheboro, NC: Statistical Associates Publishers, 9-28.

Giovanis, E., Özdamar, B., & Ozdamar, O. (2026). Managing digital work in the post-pandemic era: Telework intensity, organisational support, and employee well-being. *International Journal of Workplace Health Management*, 19(2), 150-171. Available at: <https://doi.org/10.1108/IJWHM-09-2025-0245>.

Golden, T.D., Veiga, J.F., & Dino, R.N. (2008). The impact of professional isolation on teleworker job performance and turnover intentions: Does time spent teleworking, interacting face-to-face, or having access to communication-enhancing technology matter? *Journal of Applied Psychology*, 93(6), 1412-1421. Available at: <https://doi.org/10.1037/a0012722>.

Junça, S.A., Almeida, A., & Rebelo, C. (2024). The effect of telework on emotional exhaustion and task performance via work overload: The moderating role of self-leadership. *International Journal of Manpower*, 45(2), 398-421. Available at: <https://doi.org/10.1108/IJM-08-2022-0352>.

Kaltainen, J., & Hakanen, J. (2022). Changes in occupational well-being during COVID-19: The impact of age, gender, education, living alone, and telework in a Finnish four-wave population sample. *Scandinavian Journal of Work, Environment & Health*, 48(6), 457-467. Available at: <https://doi.org/10.5271/sjweh.4033>.

Khalid, K., & Naz, A. (2025). Prevalence of Burnout and Emotional Exhaustion in Remote or Hybrid Workers. *Journal of Health and Rehabilitation Research*, 5(10). DOI: <https://doi.org/10.61919/jhrr.v5i10.1893>.

Kubilienė, L., Gričiūtė, A., Miglinė, V., Kukulskienė, M., Stankūnienė, A., & Žemaitienė, N. (2021). How Does the Assessment of Work Organization during the COVID-19 Pandemic Relate to Changes in the Well-Being of Health System Workers? *International Journal of Environmental Research and Public Health*, 18(15), 8202. Available at: <https://doi.org/10.3390/ijerph18158202>.

Lyndon, S., Rokadia, H., & Navare, A. (2024). Dark side of teleworking: Impact of initiated interdependence, professional isolation and psychological detachment on emotional exhaustion. *Evidence-Based HRM: A Global Forum for Empirical Scholarship*, 12(1), 214–229. Available at: <https://doi.org/10.1108/EBHRM-02-2022-0040>.

Pataki-Bittó, F., & Kun, Á. (2022). Exploring differences in the subjective well-being of teleworkers prior to and during the pandemic. *International Journal of Workplace Health Management*, 15(3), 320-338. Available at: <https://doi.org/10.1108/IJWHM-12-2020-0207>.

Petcu, M., Sobolevski-David, M., Crețu, R., Curea, Ștefania-C., Hristea, A., Oancea-Negescu, M.-D., & Țuțui, D. (2023). Telework: A Social and Emotional Perspective of the Impact on Employees' Wellbeing in the COVID-19 Pandemic. *International Journal of Environmental Research and Public Health*, 20(3). Available at: <https://doi.org/10.3390/ijerph20031811>.

Raišienė, A.G., Danauskė, E., Kavaliauskienė, K., & Gudžinskienė, V. (2023). Occupational Stress-Induced Consequences to Employees in the Context of Teleworking from Home: A Preliminary Study. *Administrative Sciences*, 13(2), 55. Available at: <https://doi.org/10.3390/admsci13020055>.

Dondapati, S., Iniyan, S., Ajay, B., Maathanghi, R., & Kavitha, P. (2023). A Study on Psychological Impact of Working From Home of Employees During COVID 19 Pandemic- a Cross Sectional Study. *Current Psychiatry Research and Reviews*, 21(1), 84-93. Available at: <https://doi.org/10.2174/2666082219666230803103308>.

Shipman, K., Burrell, D.N., & Huff Mac Pherson, A. (2023). An organizational analysis of how managers must understand the mental health impact of teleworking during COVID-19 on employees. *International Journal of Organizational Analysis*, 31(4), 1081-1104. Available at: <https://doi.org/10.1108/IJOA-03-2021-2685>.

Spilker, M.A., & Breaugh, J.A. (2021). Potential ways to predict and manage telecommuters' feelings of professional isolation. *Journal of Vocational Behavior*, 131, 103646. Available at: <https://doi.org/10.1016/j.jvb.2021.103646>.

Tahlyan, D., Hamad, N., Said, M., & Mahmassani, H.S. (2022). *Analysis of teleworkers' experiences, adoption evolution and activity patterns through the pandemic* (Report No. Telemobility-TR-2022-4). DOI:10.6084/m9.figshare.21805260.

Van Slyke, C., Lee, J., Duong, B.Q., & Ellis, T.S. (2022). Eustress and Distress in the Context of Telework. *Information Resources Management Journal*, 35(1), 1-24. Available at: <https://doi.org/10.4018/IRMJ.291526>.

Weinert, C., Maier, C., & Laumer, S. (2015). *Why are teleworkers stressed? An empirical analysis of the causes of telework-enabled stress*. Available at: <https://www.semanticscholar.org/paper/Why-are-teleworkers-stressed-An-empirical-analysis-Weinert-Maier/74fef58b9cffff4370af99c90dc2a2d13de2eb04>.

Yasiroh, Y.Y. & Suhada. (2025). The Impact of Stress Due to Remote Working (Teleworking) Caused by Tecnostress on Employee Satisfaction, Anxiety, and Performance in DIY. *International Journal of Economics and Management Research*, 4(3), 426-437. Available at: <https://doi.org/10.55606/ijemr.v4i3.567>.

Yu, X., & Liu, Y. (2023). How do remote workers perform during COVID-19 lockdowns? Examining professional isolation, cynicism and psychological hardiness. *Information Technology & People*, 36(5), 1894-1914. Available at: <https://doi.org/10.1108/ITP-04-2021-0259>.