

# Validity and Reliability of the Remote Work Stress Scale

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**Abstract:** People may experience stress related to the demands and conditions of remote work. Remote work stress is a potential outcome of this experience, characterized by the psychological strain associated with working outside traditional office environments and assessed through the Remote Work Stress Scale (RWSS). In the current study, the RWSS was developed and validated for the first time in the cultural context of Türkiye. The study included remote employees from various sectors. The average age was 36 years ( $SD = 8.33$  years), with an average of 12 years of work experience ( $SD = 8.51$  years). Participants worked an average of 42 hr per week ( $SD = 8.40$  hr), including 22 hr ( $SD = 14.78$  hr) remotely. The reliability and validity of the measure were examined through exploratory and confirmatory factor analyses. The results supported a five-factor structure and indicated an acceptable model fit. The scale also demonstrated high internal consistency and meaningful item–total correlations. It has been determined that remote work stress is a distinctive phenomenon, and the Remote Work Stress Scale is a valid and reliable tool for assessing stress related to remote work in Türkiye.

**Key words:** remote work, stress, conservation of resources theory, Turkish workers, scale.

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Since the beginning of the 21st century, remote work has gained popularity, particularly following the COVID-19 pandemic, which led to a rapid increase in teleworking. According to Ahrendt et al. (2020), 37% of employees in Europe began working remotely due to the pandemic. This trend has continued to grow following the pandemic, which is not surprising (Ozimek, 2020) and has resulted in researchers' growing interest (Darouei & Pluut, 2021; Hu & Subramony, 2022; Kučera et al., 2021; Scheel et al., 2023).

Remote work is defined as working outside of a traditional office setting, often utilizing information and communication technology to perform tasks and communicate with others (Beckel & Fisher, 2022). While numerous studies have highlighted the advantages of remote work, such as flexible hours and improved work–life balance, they reveal significant disadvantages, including feelings of loneliness, increased workload, and reduced communication (Grant et al., 2019; Ipsen et al., 2021; Spreitzer et al., 2017). Costin et al. (2023) indi-

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cated that remote workers experienced occupational burnout, daily job stressors, emotional labor, and challenges related to work–life balance.

The current article is about developing a psychometric evaluation of a remote work stress questionnaire to measure remote work stress. The benefits of developing such a measure will enable us to understand individuals' remote work stressors. Understanding the stress factors caused by remote working will help organizations develop policies to address these problems.

Stressful life is frequently linked to a decline in both physical and psychological health (Örücü & Demir, 2009). Stress is one of the main negative topics in work life, and work stress is one of the most heavily studied topics in occupational health psychology (Klinefelter et al., 2021). Stress is linked to various physical health, wellness, and behavioral effects (Sischka et al., 2024). Individuals confront many stressors at work, which is not only harmful to individuals' health but also affects motivation, concentration, and satisfaction. Organizations pay attention to the stressors of remote work because of the workers' productivity and commitment to the organization.

In the context of remote work, job demands and, consequently, work-related stress tend to be even higher due to the cumulation of multiple stressors, including extended working hours, increased workloads, and challenges arising from the intersection of professional and personal life (Lange & Kayser, 2022). Employees face numerous stressors in the workplace, which can adversely impact their health as well as their motivation, focus, and satisfaction. Organizations are particularly attentive to the stressors associated with remote work due to their influence on employee productivity and commitment to the company.

Work stress in traditional office environments is well documented; however, the emerging phenomenon of remote work has not been extensively studied. For this reason, there is a significant need for studies that explain the stress arising from remote work and investigate the stress factors. The literature shows that stress factors caused by remote working include

job insecurity, high workload, a poor work environment, feelings of isolation and loneliness, a lack of structure, heightened perception of work–family conflict, and keeping up with rapidly changing technologies (Chudzicka-Czupala et al., 2023; Costin et al., 2023; Gualano et al., 2023; Lal et al., 2023; Prasad et al., 2023).

The various challenges that individuals face while working remotely contribute to increased levels of stress, making the conservation of resources (COR) theory the most suitable framework to explain this issue. Stress occurs as a reaction to circumstances that threaten or lead to the depletion of resources. Consequently, the stress response is fundamentally an attempt to minimize losses while also aiming to maximize gains, with the aspect of loss significantly outweighing any potential gains (Holmgreen et al., 2017). This uncertainty complicates employees' ability to manage their work responsibilities alongside their personal lives, thereby heightening the risk of resource loss. In particular, individuals juggling family obligations and work tasks often find themselves worried about losing crucial resources, such as time and energy. This negatively impacts employees' mental and emotional well-being, resulting in elevated stress levels. Therefore, it is crucial to analyze the dynamics of remote work and the associated challenges in greater depth, especially regarding the sources and consequences of stress. Ultimately, the loss of resources—whether arising from significant events or everyday stressors—represents the fundamental cause of stress (Höcker et al., 2024).

To adequately measure remote work stress, a new instrument must be grounded in established theories while addressing the specific challenges of the remote context. The COR theory (Hobfoll, 1989), which posits that stress arises from the threat or loss of valued resources, provides a robust framework for identifying these challenges. The literature suggests that the most significant stressors for remote workers emerge in distinct domains where their resources are uniquely vulnerable.

For instance, prior research highlights the unique manifestations of work–life imbalance

(e.g., domestic interruptions) and overworking (e.g., the feeling of being in a perpetual work state) in the home environment, which threaten personal resources like time and energy (Schlachter et al., 2018). Similarly, challenges often seen in virtual teams point to stressors related to a lack of communication, which can deplete crucial social and instrumental support resources (Hertel et al., 2005). These aspects are often overlooked or inadequately captured in general stress measures.

Furthermore, a notable gap in existing scales is the impact of physical and environmental resource loss. The potential for inactivity and monotony inherent in remote work represents a direct threat to well-being by restricting physical resources (e.g., opportunities for movement) and extending the scope of critical resources considered within COR theory. Additionally, the “out of sight” nature of remote work can exacerbate anxieties related to job insecurity. This moves beyond traditional conceptualizations (De Witte et al., 2016) to include nuanced fears of underperforming, which threaten psychological resources like status, esteem, and perceived control.

These distinct thematic areas, work–life imbalance, overworking, lack of communication, inactivity, and job insecurity represent significant, context-specific pathways of resource threat that are not holistically captured by general occupational stress measures. The absence of a theoretically grounded and integrated tool to assess these dimensions signifies a critical gap in the literature. This article aims to address this gap by developing and psychometrically evaluating a Remote Work Stress Scale (RWSS) to measure these specific stressors. Understanding these factors is crucial for organizations to develop policies that mitigate the negative impacts of remote work on employee health and productivity.

Remote work stress can be viewed as a specific facet of general job stress, characterized by factors that arise when working outside a traditional office. While sharing common pressures, like workload and deadlines, remote work introduces unique challenges, including social isolation, work–life integration

difficulties, and technological issues. Therefore, this study, which treats remote work stress as a subdimension of overall job stress, will focus specifically on the stressors inherent to the remote work process itself.

## Methods

This study followed the “three phases and nine steps of scale development and validation” framework proposed by Boateng et al. (2018) to create a valid and reliable RWSS. The process began with the item-development phase, encompassing two key steps: first, identifying the domain and generating potential items (step 1), followed by evaluating these items through content-validity assessments to ensure their relevance and alignment with the domain (step 2). The subsequent scale-development phase covered four steps. It included pretesting the items (step 3) to ensure clarity and significance, administering surveys and selecting an appropriate sample size to collect meaningful data (step 4), reducing items to streamline the scale (step 5), and conducting factor analyses to uncover latent constructs (step 6). These steps collectively refined the scale and clarified its dimensions. Finally, the scale-evaluation phase addressed three additional steps. Dimensionality tests (step 7) verified the alignment between latent constructs and theoretical expectations, reliability tests (step 8) confirmed consistency in responses, and validity tests (step 9) ensured the scale accurately measured the intended construct (Özkan et al., 2023). Following these phases, the scale was deemed both valid and reliable for assessing the concept of remote work stress.

### Data-Collection Tool

The measurement tool employed in this research is divided into two sections. The first section comprises a 10-question form designed to gather sociodemographic information about the participants, such as their gender, education level, marital status, type of organization, position, age, work experience, weekly working hours, weekly remote working days, and weekly

remote working hours. The second section includes the scale items to be developed.

The scale development and validation process followed a three-step approach for generating items. In the first step, a one-question survey was distributed via LinkedIn to individuals who worked remotely for at least 1 hr weekly. The question was “What situations cause you stress when working remotely?” Seven hundred and seventy-seven people completed the survey, thanks to the snowball effect achieved by placing the survey on a LinkedIn profile that is accessible and shareable beyond close relationships. The analysis began with data submitted by 717 participants after excluding data from those who did not leave a response, gave irrelevant answers, or stated that they did not feel stressed at all. When data saturation was reached, the analysis process was completed with data from 450 individuals. Twenty-five themes were used to group a total of 1,340 statements. The nomenclature of themes, codes, and sub-codes was primarily derived from the literature on remote working. If there were no prior references or when stressors specific to the pandemic were initially encountered, new themes and code names were created in accordance with the exploratory technique. Nearly 90 different stressors were identified by three expert researchers and transformed into items that can be used in the scale. In the second step, in-depth interviews were held with individuals from the target group. Between September 8 and September 28, 2024, six participants were interviewed online, with an average of 55-min sessions, for a total of 333 min. After the second step, the number of items dropped to 55. The third step involved a focus group discussion conducted online with three additional participants, lasting approximately 3 hr. Following the third step, the number of items was reduced to 41. After a 2-hr evaluative discussion among researchers and based on the findings of individual and focus group interviews, adjustments, additions, and deletions were made, resulting in the creation of the 39-item RWSS (e.g., “I am stressed by the lack of communication when working remotely.”). The scale uses a 5-point Likert format, where participants rate items from 1 (*strongly disagree*) to 5 (*strongly agree*).

## Population and Sample of the Study

Ethical approval for the study was obtained from Bursa Uludağ University (23/12/2022-2022-11). The study population comprised Turkish employees aged 18–65 years working across different sectors and working remotely for at least 1 hr per week. There is not a universally accepted standard for the minimum amount of remote work in the literature. Niebuhr et al. (2022) defines telework as “a work practice that involves members of an organization substituting a portion of their typical work hours (ranging from a few hours per week to nearly full-time) to work away from a central workplace—typically from home—using technology to interact with others as needed to conduct work tasks.” In this study, at least 1 hr per week was regarded as sufficient criteria for participation and assumed that any remote work experience, whether for 1 hr or 40 hr per week, may cause stress.

According to the Turkish Statistical Institute (2024), 32.7 million people were employed in Türkiye in 2024. It is estimated that 10% of these employees have atypical contracts (e.g., for remote work, project-based work). Compared to EU countries, the preference for atypical employment patterns is due to low pay restrictions and low union density, which force and persuade young people to work part-time rather than full-time roles (Selek, 2024), hence providing cost-saving advantages for businesses.

Conducting this research in Türkiye is significant in terms of the rapid transition to remote working during the pandemic and the ongoing transition to hybrid working. According to the “Cities Best Facilitating Remote Work: A Global Index,” Istanbul is among the top 80 cities for facilitating remote work (WorkMotion, 2024). Cultural values and behavioral patterns can call into question Turkish people’s curiosity and rapid adaption to the technology. The majority of Türkiye’s population is under 30 years old, which has led to increased internet use and consumption of new technology. Türkiye stands out as an example in terms of perceiving the rate of adoption in the diffusion of innovations (İldeş, 2022).

From there, the population of the study was determined to be 3.27 million. The sample size

to represent this population was determined to be 385 participants at the 95% confidence level with a 5% margin of error (Raosoft, 2024). Furthermore, scale development studies recommend a sample size of 10 times the proposed number of items (Costello & Osborne, 2005). Since the proposed scale has 39 items, a group of at least 390 people can be sampled. Therefore, a group of at least 390 people was targeted to complete the questionnaire based on both the sample size representing the population and the number of items. The survey was distributed to employees through various online communication platforms, such as LinkedIn. To this end, the scale-development study was conducted with responses from 427 participants (Table 1).

The sample consisted of employees residing in Türkiye who regularly work remotely across various sectors. Of the participants, 58.5% were female, and 97.4% held at least a university degree. Additionally, 54.8% were married, 89.2% were employed in the private sector, and 34.9% held managerial positions. Participants' ages ranged from 19 to 63 years ( $M = 35.61$  years,  $SD = 8.33$  years), with professional experience spanning from 1 year to 42 years ( $M = 12.13$  years,  $SD = 8.51$  years). They worked between 1 hr and 70 hr per week ( $M = 41.91$  hr,  $SD = 8.40$  hr), including 0–7 days of remote work per week ( $M = 2.72$  days,  $SD = 1.84$  days), and spent 1 hr to 70 hr working remotely ( $M = 21.93$  hr,  $SD = 14.78$  hr). Monthly net income ranged from approximately USD 480 to USD 22,600 ( $M = \text{USD } 1,923$ ,  $SD = \text{USD } 1,654$ ).

### Data Analysis

The theoretical foundation for our proposed five-factor structure is grounded in the COR theory, which posits that psychological stress occurs when individuals experience a threat to, or actual loss of, their valued resources (Hobfoll, 1989). Applying this framework to the remote work context, we argue that the most significant stressors will manifest in domains where key personal, social, and physical resources are most vulnerable. Prior research supports this view: the blurring of professional and personal boundaries in remote settings (Schlachter et al., 2018) threatens personal

Table 1  
*Demographic characteristics of the participants*

Demographics	<i>n</i> (%)
Sex	
Woman	250 (58.5%)
Man	173 (40.5%)
No specify	4 (0.9%)
Educational status	
High school	5 (1.2%)
College	6 (1.4%)
University	210 (49.2%)
Master or higher	206 (48.2%)
Marital status	
Married	234 (54.8%)
Single	193 (45.2%)
Type of organization	
Private	381 (89.2%)
Public	46 (10.8%)
Position	
Manager	149 (34.9%)
Worker	278 (65.1%)
	<i>M</i> ( <i>SD</i> )
Age (years)	35.61 ( $\pm 8.33$ )
Experience	12.13 ( $\pm 8.51$ )
Weekly working hours	41.91 ( $\pm 8.40$ )
Weekly remote working days	2.72 ( $\pm 1.84$ )
Weekly remote working hours	21.93 ( $\pm 14.78$ )

resources like time and family harmony (conceptualized as work–life imbalance and overworking). Similarly, ineffective virtual collaboration (Hertel et al., 2005) depletes social and instrumental support resources (addressed by lack of communication). Furthermore, the remote environment can uniquely restrict physical resources, such as opportunities for movement and environmental variety (a novel domain we term “inactivity”), and diminish security-related resources like perceived control and status due to reduced visibility (a specific form of job insecurity; De Witte et al., 2016). Therefore, these five factors represent the primary pathways through which resource loss is anticipated to occur for remote workers. Based on this theoretical and literature-driven rationale, we propose our primary hypothesis:

Hypothesis 1: The Remote Work Stress Scale, consisting of five factors (work–life imbalance, overworking, lack of communication, inactivity,

and job insecurity), is both valid and reliable for measuring stress experienced by remote workers.

To test Hypothesis 1, three statistical software programs were utilized to evaluate the scale's psychometric properties, ensuring alignment with COR Theory's resource loss framework. Data were accessible upon request from the authors. SPSS 21 was used to conduct exploratory factor analysis (EFA) to examine whether the 15 items of the RWSS group into the hypothesized five factors—work-life imbalance (items 1–3), overworking (items 4–6), lack of communication (items 7–9), inactivity (items 10–12), and job insecurity (items 13–15)—reflecting distinct resource loss domains. Principal axis factoring with varimax rotation was applied to identify the factor structure, and Cronbach's alpha assessed reliability, addressing Hypothesis 1's reliability component. Confirmatory factor analysis (CFA) using LISREL 8.7 tested the construct validity of Hypothesis 1 by evaluating the fit of the five-factor model. Fit indices (e.g., CFI, RMSEA, SRMR) determined whether the model accurately captures resource depletion stressors in remote work. SmartPLS 4 assessed convergent and discriminant validity through Partial Least Squares Structural Equation Modeling (PLS-SEM). Average variance extracted (AVE) and the Fornell-Larcker criterion evaluated whether each factor distinctly explains variance in its items, supporting Hypothesis 1's validity component. This multi-phase approach rigorously tested Hypothesis 1, ensuring the RWSS's validity and reliability as a measure of remote work stress, aligned with COR Theory's resource loss perspective.

## Results

### Validity of the Remote Work Stress Scale

Explanatory and confirmatory factor analyses were conducted in the study to demonstrate the construct validity of the RWSS. To determine the suitability of the data collected in the research for EFA, sampling adequacy was analyzed using the Kaiser–Meyer–Olkin (KMO)

Sampling Adequacy Test and item consistency was analyzed using Bartlett's Test of Sphericity. As a result, sampling adequacy and item consistency were found to be suitable for EFA (KMO = .964;  $\chi^2 = 14,571.341$ ;  $df = 741$ ; Bartlett's  $p = .00$ ). In the EFA, which can be seen in Table 2, principal component analysis was used as the factor derivation method and Varimax with Kaiser Normalization was used as the rotation method, and the lowest factor loading was determined to be .40 (Yong & Pearce, 2013).

Table 2 shows the factor loadings obtained by the varimax rotation method. As the scale developed addresses remote work stress, the items were named “s1,” “s2,” and so forth based on the term “stress.” Accordingly, it was observed that the factor loadings of 25 of the 39 items in the RWSS are above .40 (the factor loadings of items s1, s7, s8, s12, s13, s14, s15, s17, s22, s23, s24, s31, s37, and s39 are below .40), and the five-factor and 25-item structure of the scale was explained after the factor analysis. Based on the results of the analysis, the RWSS consists of five factors with factor loadings ranging from .623 to .807. The eigenvalue of factors ranges from 4.749 to 6.032, and the explained variance rate ranges from 12.178% to 15.466%. The total variance explained for the entire scale is 67.852%, which exceeds the expected value of 50% in social sciences (Beavers et al., 2013).

Conducting EFA followed by CFA on the same dataset is a widely accepted approach in scale validation, particularly when theoretical assumptions are unclear or new instruments are being developed. EFA uncovers the underlying factor structure without preconceived models, while CFA confirms the identified structure, ensuring construct validity and model fit. This sequential method is supported by numerous studies (Başol & Çömlekçi, 2022; Dursun et al., 2020, 2022; Özkan et al., 2023) and is considered valid when justified, as noted by Wymer and Baptista Alves (2012) and Goudarzian (2023). We applied this approach to explore and validate the factor structure of our scale. After EFA, we proceeded with CFA using the same dataset to confirm the identified factor structure.

Table 2  
 Rotated matrix results ( $n = 427$ )

Items	F1	F2	F3	F4	F5
s1	-	-	-	-	-
s2	.701	-	-	-	-
s3	.807	-	-	-	-
s4	.778	-	-	-	-
s5	.625	-	-	-	-
s6	.705	-	-	-	-
s7	-	-	-	-	-
s8	-	-	-	-	-
s9	-	.780	-	-	-
s10	-	.805	-	-	-
s11	-	.742	-	-	-
s12	-	-	-	-	-
s13	-	-	-	-	-
s14	-	-	-	-	-
s15	-	-	-	-	-
s16	-	-	-	.623	-
s17	-	-	-	-	-
s18	-	-	.737	-	-
s19	-	-	.729	-	-
s20	-	-	.652	-	-
s21	-	-	.656	-	-
s22	-	-	-	-	-
s23	-	-	-	-	-
s24	-	-	-	-	-
s25	-	-	-	.646	-
s26	-	-	-	.655	-
s27	-	-	-	.739	-
s28	-	-	-	.670	-
s29	-	-	-	.642	-
s30	-	.625	-	-	-
s31	-	-	-	-	-
s32	-	-	-	-	.673
s33	-	-	-	-	.699
s34	-	-	-	-	.728
s35	-	-	-	-	.640
s36	-	-	-	-	.754
s37	-	-	-	-	-
s38	-	-	-	-	.689
s39	-	-	-	-	-
Eigenvalue	4.749	5.053	4.795	5.834	6.032
% of variance	12.178	12.956	12.294	14.959	15.466
Total variance		67.852			

CFA was conducted on the five-factor 25-item structure identified through EFA using LISREL 8.71. In CFA, two key criteria are evaluated to determine the significance of the items within the model. First, the standardized factor loading values should exceed .50 (Hair

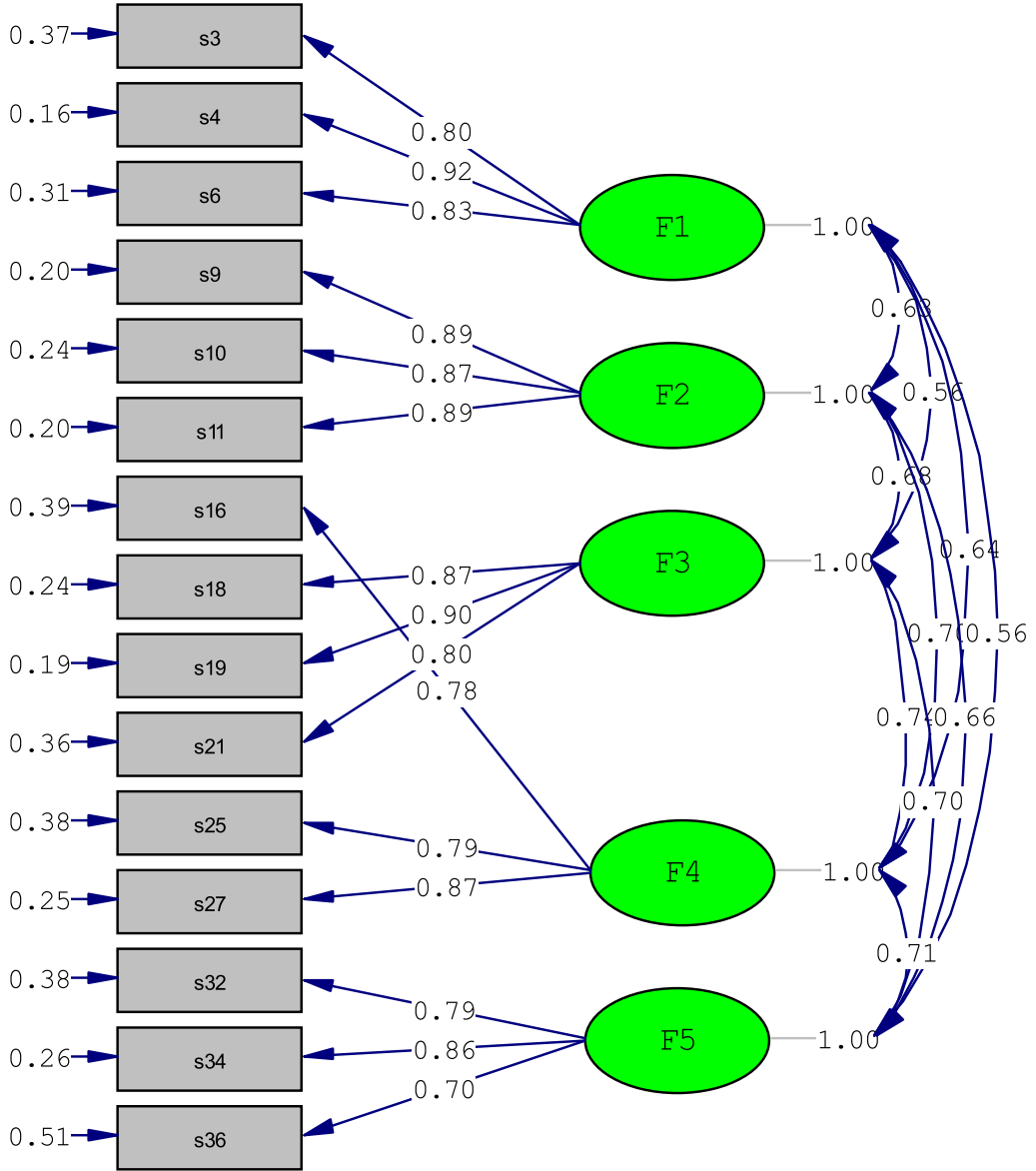
et al., 2010; Şimşek, 2007; Taşkın, 2008). Figure 1 presents the standardized coefficient results for the scale. The analysis indicates that the standardized factor loadings of items s2, s5, s20, s26, s28, s29, s30, s33, s35, and s38 were below .50. These 10 items were excluded from

the model. Standardized factor loadings of the 15 significant items range from .70 to .92, with all values meeting the threshold of .50.

Another critical criterion in CFA is that the *t* values representing the connections between items and their respective factors

must be significant at a 95% confidence level ( $t > 1.96$ ; Hair et al., 2010; Şimşek, 2007; Taşkın, 2008). The *t* values for the scale are presented in Figure 2. The analysis results indicate that all item-factor pathways are statistically significant.

Figure 1  
Standardized coefficient solutions for the Remote Work Stress Scale.



The analysis confirmed a five-factor structure comprising 15 items. In the final stage of CFA, it is essential to assess the significance of the remaining items and evaluate the goodness-of-fit indices using LISREL to verify the factors. For the scale, an  $\chi^2/df$  value below 5 is considered acceptable, while RMSEA and SRMR values

should be below .08. Additionally, goodness-of-fit criteria require NFI and GFI values to exceed .90, NNFI and CFI values to surpass .95, and AGFI values to be greater than .85 (Çömlekçi & Başol, 2019; Özkan et al., 2023).

Table 3 presents the goodness-of-fit index values for the RWSS. The analysis yielded the

Figure 2  
The *t* values solutions for the Remote Work Stress Scale.

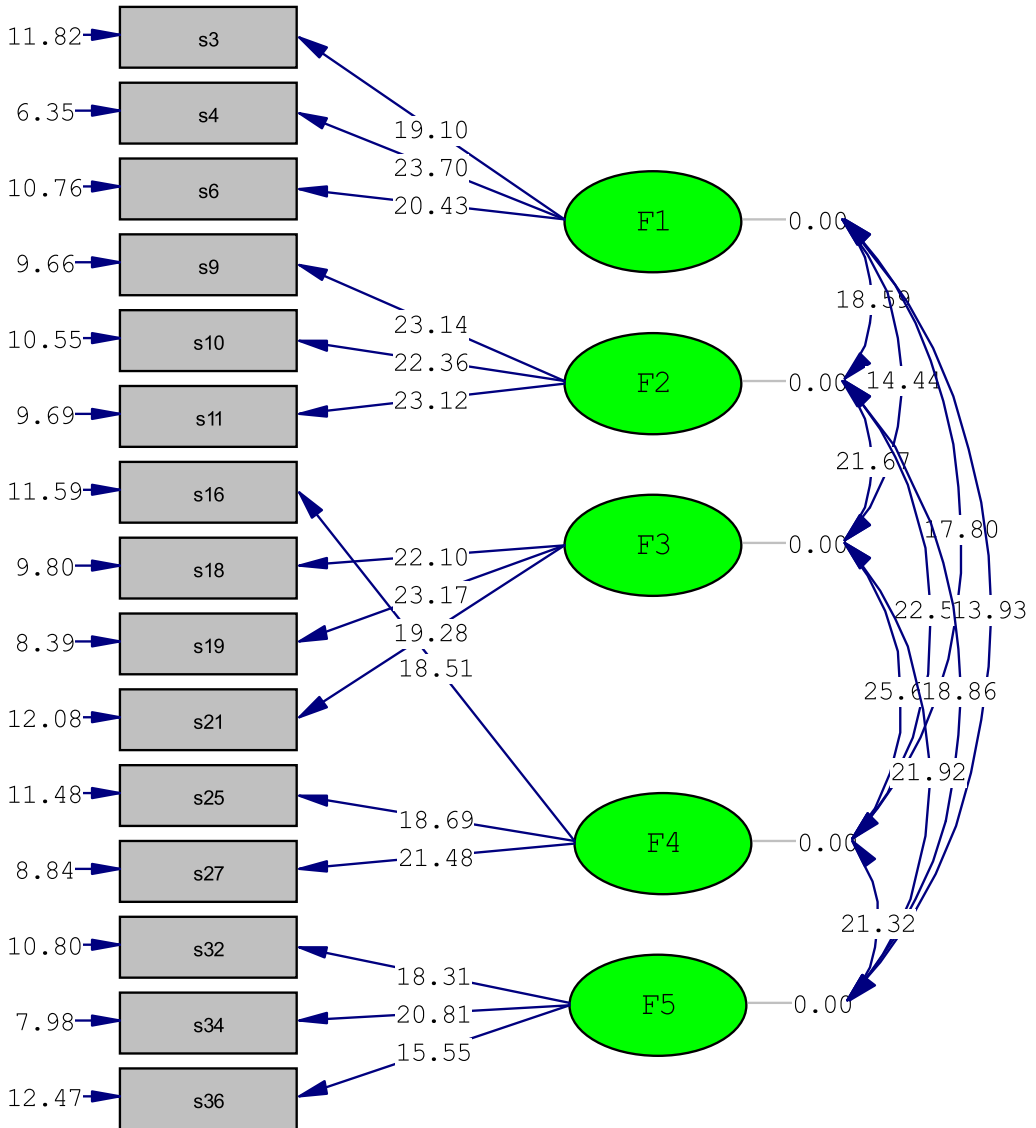


Table 3  
*Goodness-of-fit index values for the Remote Work Stress Scale*

Goodness-of-fit index	Acceptable goodness-of-fit index value	Goodness-of-fit index values of the scale
$\chi^2/df$	<5	239.81/80 = 2.99
RMSEA	<.08	.07
SRMR	<.08	.04
NFI	>.90	.98
NNFI	>.95	.98
CFI	>.95	.99
GFI	>.90	.93
AGFI	>.85	.90

following results:  $\chi^2/df = 2.99$ , RMSEA = .07, SRMR = .04, NFI = .98, NNFI = .98, CFI = .99, GFI = .93, and AGFI = .90. These values exceed the acceptable thresholds for goodness-of-fit indices, confirming the validity of the five-factor structure of the RWSS.

### Reliability of the Remote Work Stress Scale

Internal consistency was measured using Cronbach's alpha (CA), and composite reliability (CR) was also evaluated to assess the reliability of the RWSS. Results show that the CA value for the "F1" factor is .88, for the "F2" factor is .92, for the "F3" factor is .89, for the "F4" factor is .85, for the "F5" factor is .82, and for the entire scale is .94. These results confirm the scale's strong internal consistency (Taber, 2018). Similarly, the CR analysis reveals values of .93 for the "F1" factor, .95 for the "F2" factor, .93 for the "F3" factor, .91 for the "F4" factor, and .90 for the "F5" factor. Based on these findings, the RWSS demonstrates acceptable unified reliability (Bagozzi & Yi, 1988).

Following the CFA, it is essential to assess convergent validity. This is determined by ensuring that the AVE exceeds .50 (Bagozzi & Yi, 1988) and that the square root of the AVE is greater than the correlation values in the corresponding column (Fornell & Larcker, 1981). Table 4 presents the convergent validity values for the scale. As shown in the table, the AVE values for the factors are above .50, and the square root of the

AVE values exceeds the respective correlation values. These findings confirm that the RWSS possesses convergent validity. Therefore, the results of the analysis indicate that the RWSS is a valid measurement tool. Furthermore, since the inter correlations between the factors are below .90, it is seen that there is no common method variance (Rodríguez-Ardura & Meseguer-Artola, 2020).

The reliability of the RWSS also needs to be evaluated. Table 5 presents the reliability analysis results for the scale. The item-total correlation coefficients range from .575 to .755, indicating high item discrimination power, as values between .30 and .90 are considered acceptable (De Vaus, 2002). Furthermore, the internal consistency coefficient remains stable and does not significantly improve more than .94 CA by removing any item from the scale.

The names of the factors in the RWSS were carefully chosen based on the nature of the stressors identified during the scale-development process. The first factor (F1), "work-life imbalance," reflects the stress experienced by individuals in managing the competing demands of work and personal life while working remotely (e.g., "Family conflict causes me stress when I work remotely"). This factor emerged as a key stressor, with higher scores indicating more significant difficulties in maintaining a balance between personal and professional responsibilities. The second factor (F2), "overworking," was named to capture stress arising from working excessive hours, a common challenge in remote work settings where boundaries between work and personal time can become blurred (e.g., "The increase in my working hours causes me stress when I work remotely"). "Lack of communication," the third factor (F3), was identified as a significant source of stress, stemming from communication barriers and misunderstandings in a remote work environment, which can lead to frustration and inefficiency (e.g., "Lack of communication causes me stress when I work remotely"). The fourth factor (F4), "inactivity," highlights stress caused by a lack of physical activity, an issue particularly pertinent in remote work where employees may be more sedentary (e.g., "Being immobile causes me stress when I work remotely"). Finally, (F5), the "job

Table 4  
Convergent validity result of the Remote Work Stress Scale

Factors	AVE	F1	F2	F3	F4	F5
F1	0.81	.901 <sup>a</sup>				
F2	0.86	.581**	.929 <sup>a</sup>			
F3	0.82	.531**	.631**	.908 <sup>a</sup>		
F4	0.77	.576**	.620**	.648**	.876 <sup>a</sup>	
F5	0.74	.528**	.575**	.639**	.599**	.861 <sup>a</sup>

<sup>a</sup>√AVE.

\*\*  $p < .01$ .

Table 5  
Reliability results for the Remote Work Stress Scale

Items	Corrected item–total correlation	Cronbach's alpha if item deleted
s3	.600	.937
s4	.674	.935
s6	.696	.935
s9	.744	.933
s10	.712	.934
s11	.755	.933
s18	.697	.935
s19	.734	.934
s21	.726	.934
s16	.682	.935
s25	.664	.936
s27	.711	.934
s32	.674	.935
s34	.688	.935
s36	.575	.938

insecurity” factor focuses on stress related to job insecurity, which can be exacerbated by remote working conditions where visibility and job stability may feel uncertain (e.g., “Fear of losing my job causes me stress when I work remotely”). Together, these five factors comprehensively capture the multifaceted nature of stress experienced by remote workers, making the RWSS a valuable tool for understanding and addressing these challenges.

## Discussion and Conclusion

A review of the national and international literature shows that, although the concept of

remote work stress has been used in various studies from different perspectives, the lack of a measurement tool that incorporates the concept is considered the most valuable contribution of this research. The suggestions to investigate the stress variables associated with remote work, such as technostress factors (Bahamondes-Rosado et al., 2023; Ferziani et al., 2018) and mental stress factors (Tump et al., 2022), indicate a deficiency of a holistic evaluation tool in the existing literature. Revealing this need, several recent studies have attempted to assess stress factors associated with remote work by employing scales evaluating work-related stress. This approach is inherently limited, as remote work stress is a specific facet of general job stress arising from work outside a traditional office; it shares common pressures, like workload and deadlines, but adds unique challenges, such as social isolation and work–life integration, that general scales may not fully capture.

For instance, Sandoval-Reyes et al. (2021) used the 66-item Job Stress Questionnaire of Lazarus and Folkman (1984) to examine the relationship between telecommuting, job stress, and work life during pandemic periods, while Natomi et al. (2022) used the 57-item Short Job Stress Questionnaire of the Japanese Ministry of Health to measure stress in employees working from home. Considering the current difficulties in data collection and the increasingly short attention span, it is thought that a new and shorter scale is needed for empirical studies. Therefore, the main purpose of the study was to develop a valid and reliable RWSS. Rendering remote work stress

as a measurable concept will be an important step for employees and employers regarding the efficiency and sustainability of working life.

To this end, to develop a valid and reliable RWSS, this study utilized the “three phases and nine steps of scale development and validation” procedure recommended by Boateng et al. (2018). Additionally, the three-step principle was adopted to claim items. In the first step, a one-question survey was sent to employees via online platforms. In the second step, in-depth interviews were conducted with individuals who are currently remote workers. The third step comprises focus group interviews. As a result, the RWSS, consisting of 39 items, was developed, with each item measured using a 5-point Likert scale.

This study collected responses from 427 participants and conducted EFA, each factor containing three items, resulting in a validated 15-item scale featuring a five-factor structure, confirming its validity and reliability. The first factor, termed “work–life imbalance,” assesses stress associated with the struggles of managing work and personal life during remote work, with a higher average score indicating increased stress. The second factor, “overworking,” measures stress linked to excessive work hours, while the third factor, “lack of communication,” evaluates the stress stemming from communication challenges in a remote setting. The fourth factor, “inactivity,” addresses stress related to a lack of physical activity, and the fifth factor, “job insecurity,” focuses on stress from job insecurity. The nomenclature of the variables in the RWSS was carefully selected to reflect the nature of the stressors observed throughout the scale creation process. The dimensions of the scales in social sciences are typically referred to as positive or neutral expressions aside from the problem-focused nomenclature strategy of positive medical science. It is intended to contribute to the body of literature from this perspective by employing problem-focused terminology. These five dimensions collectively reflect the varied nature of stress faced by remote workers, making the RWSS an important tool for identifying and managing these issues.

Regarding concepts like workload, work–life conflict, relationship issues (social support), and job insecurity, many of these dimensions reflect the manifestation and escalation of known stressors within the context of remote work, and they substantially align with earlier occupational stress research (De Bruin & Taylor, 2005; Galanti et al., 2021; Leite et al., 2021; Montani et al., 2021). However, their prominence and specific presentation in remote settings, such as the extreme blurring of boundaries in work–life balance (Galanti et al., 2021), the “always-on” culture driving overworking (Leite et al., 2021), the distinct form of isolation and technology-related communication strain (Galanti et al., 2021), inactivity directly resulting from the work setup (Altın & Ülker, 2021; Ipsen et al., 2021), and the emergence of technology-specific insecurities like techno-insecurity and techno-uncertainty (Leite et al., 2021), can be considered novel contributions or areas where the challenges of modern work arrangements provide a new lens on existing stress factors. The study’s findings were consistent with the research by Yu and Wu (2021) in terms of showing diminishing social relationships and loss of communication with coworkers in the work-from-home system. The inclusion of dimensions like work–life balance in scales like the New Job Stress Scale reflects an evolution in how stress is measured to capture these contemporary pressures (Leite et al., 2021).

The overall RWSS effectively evaluates the multifaceted stressors experienced by individuals working remotely, with scores ranging from 1 to 5 on a 5-point Likert scale, where higher scores reflect greater remote stress. This valid and reliable scale is particularly relevant for white-collar workers, with both Turkish (see Appendix A) and English versions (see Appendix B) available.

The RWSS not only makes important methodological contributions but also has practical implications for organizations and policymakers. By identifying unique challenges associated with remote work, such as overworking and poor communication, the scale provides actionable insights that can guide efforts to enhance employee satisfaction.

While the sample includes participants from varied demographics and sectors, only employees in Türkiye were targeted within the scope of this study. In this respect, it should be kept in mind that it could not reach a wider audience with participation from different countries. The measurement tool focused only on measuring remote work stress and was based on self-reporting by individuals. A significant limitation of the study is the highly educated nature of the sample, with 97.4% of participants holding at least a university degree. This demographic characteristic may limit the generalizability of the findings, as the remote work experiences and associated stress factors could differ for individuals with varying educational levels. Another limitation is that the scale can partially assess the stress aspects associated with hybrid working, specifically where remote work is involved.

Although this research is considered one of the important milestones in the literature, how it interacts with different attitudes should be discussed. For example, the relationship between remote work stress, job stress, job satisfaction, work-life balance, and turnover intention deserves to be analyzed as well as the differentiation of attitudes according to different demographic groups. In addition, comparing the remote work stress in different countries, perhaps creating an index of the remote work stress by country, could also be an important contribution to the literature. Longitudinal studies could provide a dynamic perspective on how remote work stress evolves and how focused interventions might minimize its impact. In a future study on hybrid models that integrate remote and in-office work, measuring face-to-face working hours is also recommended for a comparative analysis of contemporary work environments. A final recommendation is to integrate qualitative approaches alongside quantitative methods to provide a comprehensive framework for organizations to effectively address stress-related challenges and retain employees. Mixed methods research can deepen the understanding of the factors that cause remote work stress and provide a roadmap for organizations and managers.

## Conflict of Interest

The authors declare no conflicts of interest associated with this manuscript.

## References

- Ahrendt, D., Cabrita, J., Clerici, E., Hurley, J., Leončikas, T., Mascherini, M., Riso, S., & Sándor, E. (2020). *Living, working and COVID-19*. Eurofound.
- Altın, M. A., & Ülker, O. (2021). A study on ergonomic problems of design students during intense distant education period in COVID-19 lockdown. *International Journal of Engineering Research and Development*, 13(3), 188–201. <https://doi.org/10.29137/umagd.1026731> (In Turkish with English abstract.)
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94. <https://doi.org/10.1007/BF02723327>
- Bahamondes-Rosado, M. E., Cerdá-Suárez, L. M., de Doro Ortiz Zevallos, G. F., & Espinosa-Cristia, J. F. (2023). Technostress at work during the COVID-19 lockdown phase (2020–2021): A systematic review of the literature. *Frontiers in Psychology*, 14, 1173425. <https://doi.org/10.3389/fpsyg.2023.1173425>
- Başol, O., & Çömlekçi, M. F. (2022). Validity and reliability study of Remote Work Attitude Scale. *Journal of Mehmet Akif Ersoy University Economics and Administrative Sciences Faculty*, 9(1), 243–261. <https://doi.org/10.30798/makuiibf.862439> (In Turkish with English abstract.)
- Beavers, A. S., Lounsbury, J. W., Richards, J. K., Huck, S. W., Skolits, G. J., & Esquivel, S. L. (2013). Practical considerations for using exploratory factor analysis in educational research. *Practical Assessment, Research and Evaluation*, 18(6). <https://doi.org/10.7275/qv2q-rk76>
- 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>
- Boateng, G. O., Neilands, T. B., Frongillo, E. A., Melgar-Quinonez, H. R., & Young, S. L. (2018). Best practices for developing and validating scales for health, social, and behavioral research: A primer. *Frontiers in Public Health*, 11, 149. <https://doi.org/10.3389/fpubh.2018.00149>

- Chudzicka-Czupała, A., Żywiótek-Szeja, M., Paliga, M., Grabowski, D., & Krauze, N. (2023). Remote and on-site work stress severity during the COVID-19 pandemic: Comparison and selected conditions. *International Journal of Occupational Medicine and Environmental Health*, 36(1), 96–111. <https://doi.org/10.13075/ijomeh.1896.02001>
- Çömlekçi, M. F., & Başol, O. (2019). Analysis of relationship between youths' social media usage motives and social media addiction. *Manisa Celal Bayar Üniversitesi Sosyal Bilimler Dergisi*, 17(4), 173–188. <https://doi.org/10.18026/cbayarsos.525652> (In Turkish with English abstract.)
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation*, 10(7). <https://doi.org/10.7275/yjy1-4868>
- Costin, A., Roman, A. F., & Balica, R.-S. (2023). Remote work burnout, professional job stress, and employee emotional exhaustion during the COVID-19 pandemic. *Frontiers in Psychology*, 14, 1193854. <https://doi.org/10.3389/fpsyg.2023.1193854>
- Darouei, M., & Pluut, H. (2021). Work from home today for a better tomorrow! How working from home influences work-family conflict and employees' start of the next workday. *Stress and Health*, 37(5), 986–999. <https://doi.org/10.1002/smi.3053>
- De Bruin, G. P., & Taylor, N. (2005). Development of the Sources of Work Stress Inventory. *South Africa Journal of Psychology*, 35(4), 748–765. <https://doi.org/10.1177/008124630503500408>
- De Vaus, D. A. (2002). *Surveys in social research*. Allen & Unwin.
- De Witte, H., Pienaar, J., & De Cuyper, N. (2016). Review of 30 years of longitudinal studies on the association between job insecurity and health and well-being: Is there causal evidence? *Australian Psychologist*, 51(1), 18–31. <https://doi.org/10.1111/ap.12176>
- Dursun, S., Başol, O., & Aytaç, S. (2020). Validity and reliability study of the Violence Prevention Climate Scale. *Journal of Economy Culture and Society*, 62, 209–225. <https://doi.org/10.26650/JECS2019-0104> (In Turkish with English abstract.)
- Dursun, S., Başol, O., & Şengül, B. (2022). Validity and reliability study of Safety Climate Scale. *Journal of Economy, Culture and Society*, 65, 203–216. <https://doi.org/10.26650/JECS2021-949898> (In Turkish with English abstract.)
- Ferziani, A., Rajagukguk, R. O., & Analya, P. (2018). Types of technostress on employees of IT consulting company. In A. S. Girsang & E. R. Kaburuan (Eds.), *Proceedings of 2018 International Conference on Orange Technologies (ICOT)* (pp. 1–15). IEEE. <https://doi.org/10.1109/ICOT.2018.8705838>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>
- Galanti, T., Guidetti, G., Mazzei, E., Zappalà, S., & Toscano, F. (2021). Work from home during the COVID-19 outbreak: The impact on employees' remote work productivity, engagement, and stress. *Journal of Occupational and Environmental Medicine*, 63(7), e426–e432. <https://doi.org/10.1097/JOM.0000000000002236>
- Goudarzian, A. H. (2023). Challenges and recommendations of exploratory and confirmatory factor analysis: A narrative review from a nursing perspective. *Journal of Nursing Reports in Clinical Practice*, 1(3), 133–137. <https://doi.org/10.32598/JNRCP.23.44>
- Grant, C. A., Wallace, L. M., Spurgeon, P. C., Tramontano, C., & Charalampous, M. (2019). Construction and initial validation of the E-Work Life Scale to measure remote e-working. *Employee Relations*, 41(1), 16–33. <https://doi.org/10.1108/ER-09-2017-0229>
- Gualano, M. R., Santoro, P. E., Borrelli, I., Rossi, M. F., Amantea, C., Daniele, A., & Moscato, U. (2023). TELeWoRk-RElAted stress (TERRA), psychological and physical strain of working from home during the COVID-19 pandemic: A systematic review. *Workplace Health & Safety*, 71(2), 58–67. <https://doi.org/10.1177/21650799221119155>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective* (7th ed.). Pearson.
- Hertel, G., Geister, S., & Konradt, U. (2005). Managing virtual teams: A review of current empirical research. *Human Resource Management Review*, 15(1), 69–95. <https://doi.org/10.1016/j.hrmr.2005.01.002>
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513–524. <https://doi.org/10.1037/0003-066X.44.3.513>
- Höcker, M. C., Bachtal, Y., Voll, K., & Pfnür, A. (2024). Healthy, healthier, hybrid work: The burnout-reducing potential of remote work and the mediating effect of work autonomy. *International Journal of Workplace Health Management*, 17(4), 319–334. <https://doi.org/10.1108/IJWHM-02-2024-0036>

- Holmgreen, L., Tirone, V., Gerhart, J., & Hobfoll, S. E. (2017). Conservation of resources theory: Resource caravans and passageways in health contexts. In C. L. Cooper & J. C. Quick (Eds.), *The handbook of stress and health: A guide to research and practice* (pp. 443–457). Wiley Blackwell. <https://doi.org/10.1002/9781118993811.ch27>
- Hu, X. J., & Subramony, M. (2022). Disruptive pandemic effects on telecommuters: A longitudinal study of work–family balance and well-being during COVID-19. *Applied Psychology: An International Review*, 71(3), 807–826. <https://doi.org/10.1111/apps.12387>
- İldaş, G. (2022). Metaverse 101: Under the theory of diffusion of innovations. In N. Sezer & H. Çiftçi (Eds.), *Communication studies from A to Z* (Vol. 5, pp. 433–473). Iksad Publications. (In Turkish, title translated by the author of this article.)
- Ipsen, C., van Veldhoven, M., Kirchner, K., & Hansen, J. P. (2021). Six key advantages and disadvantages of working from home in Europe during COVID-19. *International Journal of Environmental Research and Public Health*, 18(4), 1826. <https://doi.org/10.3390/ijerph18041826>
- Klinefelter, Z., Sinclair, R. R., Britt, T. W., Sawhney, G., Black, K. J., & Chen, Z. J. (2021). Psychosocial safety climate and stigma: Reporting stress-related concerns at work. *Stress and Health*, 37(3), 488–503. <https://doi.org/10.1002/smi.3050>
- Kučera, J., Krulický, T., & Navrátilová, P. (2021). The trend of work from home and its advantages and disadvantages during the COVID-19 pandemic: A comparative study. *Journal of Interdisciplinary Research*, 11(2), 123–130. <https://doi.org/10.33543/1102145150>
- Lal, B., Dwivedi, Y. K., & Haag, M. (2023). Working from home during Covid-19: Doing and managing technology-enabled social interaction with colleagues at a distance. *Information Systems Frontiers*, 25, 1333–1350. <https://doi.org/10.1007/s10796-021-10182-0>
- Lange, M., & Kayser, I. (2022). The role of self-efficacy, work-related autonomy and work-family conflict on employee's stress level during home-based remote work in Germany. *International Journal of Environmental Research and Public Health*, 19, 4955. <https://doi.org/10.3390/ijerph19094955>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- Leite, W. K. dos S., Araújo, A. J. da S., da Silva, L. B., de Souza, E. L., Pimentel, C. E., da Silva, J. M. N., de Assis, N. L. P., Lemos, E. L. de M. D., & de Oliveira Filho, P. G. (2021). New Job Stress Scale: Factor and convergent validity, and reliability. *Psychology: Organizations and Work*, 21(2), 1463–1472. <https://doi.org/10.5935/rpot.2021.2.21253>
- Montani, F., Courcy, F., Battistelli, A., & de Witte, H. (2021). Job insecurity and innovative work behaviour: A moderated mediation model of intrinsic motivation and trait mindfulness. *Stress and Health*, 37(4), 742–755. <https://doi.org/10.1002/smi.2960>
- Natomi, K., Kato, H., & Matsushita, D. (2022). Work-related stress of work from home with housemates based on residential types. *International Journal of Environmental Research and Public Health*, 19, 3060. <https://doi.org/10.3390/ijerph19053060>
- Niebuhr, F., Borle, P., Börner-Zobel, F., & Voelter-Mahlknecht, S. (2022). Healthy and happy working from home? Effects of working from home on employee health and job satisfaction. *International Journal of Environmental Research and Public Health*, 19(2), 1122. <https://doi.org/10.3390/ijerph19031122>
- Örücü, M. Ç., & Demir, A. (2009). Psychometric evaluation of the Perceived Stress Scale for Turkish university students. *Stress and Health*, 25(1), 103–109. <https://doi.org/10.1002/smi.1218>
- Ozimek, A. (2020). The future of remote work. *Social Science Research Network*. <https://doi.org/10.2139/ssrn.3638597>
- Özkan, A., Çiftçiöğlü, G. A., Güzel, B. H., & Başol, O. (2023). Validity and reliability study of Charity Hazard Scale. *International Journal of Disaster Risk Reduction*, 99, 104100–104111. <https://doi.org/10.1016/j.ijdrr.2023.104100>
- Prasad, K. D. V., Vaidya, R., & Rani, R. (2023). Remote working and occupational stress: Effects on IT-enabled industry employees in Hyderabad Metro, India. *Frontiers in Psychology*, 14, 1069402. <https://doi.org/10.3389/fpsyg.2023.1069402>
- Raosoft. (2024). *Sample size calculator*. Retrieved July 17, 2025, from <http://www.raosoft.com/samplesize.html>
- Rodríguez-Ardura, I., & Meseguer-Artola, A. (2020). Editorial: How to prevent, detect and control common method variance in electronic commerce research. *Journal of Theoretical and Applied Electronic Commerce Research*, 15(2), 1–5. <https://doi.org/10.4067/S0718-18762020000200101>
- Sandoval-Reyes, J., Idrovo-Carlier, S., & Duque-Oliva, E. J. (2021). Remote work, work stress, and work–life during pandemic times: A Latin America situation. *International Journal of Environmental Research and Public Health*, 18(13), 7069. <https://doi.org/10.3390/ijerph18137069>

- Scheel, T. E., Bendixen, L., Procházka, J., & Acquadro Maran, D. (2023). Working during the COVID-19 pandemic: Demands, resources, and mental wellbeing. *Frontiers in Psychology, 13*, 1037866. <https://doi.org/10.3389/fpsyg.2022.1037866>
- Schlachter, S., McDowall, A., Cropley, M., & Inceoglu, I. (2018). Voluntary work-related technology use during non-work time: A narrative synthesis of empirical research and research agenda. *International Journal of Management Reviews, 20*(4), 825–846. <https://doi.org/10.1111/ijmr.12165>
- Selek, S. E. (2024). Working poor in Turkey. In M. I. Yenilmez & M. Ç. Özdemir (Eds.), *Labor market dynamics in Turkey during the last 100 years* (pp. 185–202). Lexington.
- Şimşek, Ö. F. (2007). *Introduction to structural equation modeling*. Ekinoks. (In Turkish, title translated by the author of this article.)
- Sischa, P. E., Grübbl, L., Reisinger, C. V., Neufang, K. M., & Schmidt, A. F. (2024). On the dimensionality, suitability of sum/mean scores, and cross-country measurement invariance of the Perceived Stress Scale 10 (PSS-10)—Evidence from 41 countries. *International Journal of Stress Management, 31*(4), 375–391. <https://doi.org/10.1002/smi.3010>
- Spreitzer, G. M., Cameron, L., & Garrett, L. (2017). Alternative work arrangements: Two images of the new world of work. *Annual Review of Organizational Psychology and Organizational Behavior, 4*, 473–499. <https://doi.org/10.1146/annurev-orgpsych-032516-113332>
- Taber, K. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education, 48*(6), 1273–1296. <https://doi.org/10.1007/s11165-016-9602-2>
- Taşkın, Ç. (2008). *The impact of brand value on the development of marketing strategies and an application* (Unpublished doctoral dissertation). Uludağ University, Social Sciences Institute. (In Turkish, title translated by the author of this article.)
- Tump, D., Narayan, N., Verbiest, V., Hermsen, S., Goris, A., Chiu, C. D., & Van Stiphout, R. (2022). Stressors and destressors in working from home based on context and physiology from self-reports and smartwatch measurements: International observational study trial. *JMIR Formative Research, 6*(11), e38562. <https://doi.org/10.2196/38562>
- Turkish Statistical Institute. (2024). *Labour force statistics, 3rd quarter: July–September 2024*. Retrieved May 1, 2025, from <https://data.tuik.gov.tr/Bulten/Index?p=Isgucu-Istatistikleri-III-Ceyrek:-Temmuz-Eylul,-2024-53519>
- WorkMotion. (2024). *Cities best facilitating remote work: A global index*. Retrieved from <https://workmotion.com/wp-content/uploads/2024/11/WorkMotion-The-best-remote-work-cities.pdf>
- Wymer, W., & Baptista Alves, H. M. (2012). A review of scale development practices in nonprofit management and marketing. *Economics & Sociology, 5*(2), 143–151. <https://doi.org/10.14254/2071-789x.2012/5-2/11>
- Yong, A. G., & Pearce, S. (2013). A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorial in Quantitative Methods for Psychology, 9*, 79–94. <https://doi.org/10.20982/tqmp.09.2.p079>
- Yu, J., & Wu, Y. (2021). The impact of enforced working from home on employee job satisfaction during Covid-19: An event system perspective. *International Journal of Environmental Research and Public Health, 18*(24), 13207. <https://doi.org/10.3390/ijerph182413207>

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## Appendix A

*Ready-to-Use Remote Work Stress Scale (Turkish Version)*

1. Uzaktan çalışırken evde bakmakla yükümlü olduğum birey(ler)in varlığı stres yaşamama neden olur.
2. Uzaktan çalışırken evdekilerin serzenişisi stres yaşamama neden olur.
3. Uzaktan çalışırken yaşadığım aile içi çatışma stres yaşamama neden olur.
4. Uzaktan çalışırken çalışma saatlerimin artması stres yaşamama neden olur.
5. Uzaktan çalışırken dinlenme/izin sürelerime müdahale edilmesi stres yaşamama neden olur.
6. Uzaktan çalışırken sürekli iş yapma halinde olmam stres yaşamama neden olur.
7. Uzaktan çalışırken geri bildirim eksikliği stres yaşamama neden olur.
8. Uzaktan çalışırken iletişim eksikliği stres yaşamama neden olur.
9. Uzaktan çalışırken kurumsal destek (yönetimsel, finansal, teknik, vb.) eksikliği stres yaşamama neden olur.
10. Uzaktan çalışırken mekansal değişimden yoksun olmam stres yaşamama neden olur.
11. Uzaktan çalışırken hareketsiz kalmam stres yaşamama neden olur.
12. Uzaktan çalışırken yaşadığım monotonluk stres yaşamama neden olur.
13. Uzaktan çalışırken çalışmadığımı düşünülmesi stres yaşamama neden olur.
14. Uzaktan çalışırken performans düşüklüğü kaygısı stres yaşamama neden olur.
15. Uzaktan çalışırken işimi kaybetme kaygısı stres yaşamama neden olur.

*Note.* 1–3 İş-Yaşam Dengesizliği; 4–6: Aşırı Çalışma; 7–9: İletişim Eksikliği; 10–12: Durağanlık; 13–15: İş Güvencesizliği; 1–15: Uzaktan Çalışma Stresi.

## Appendix B

*Ready-to-Use Remote Work Stress Scale (English Version)*

1. The presence of dependent person(s) at home causes me stress when I work remotely.
2. The reproaches of those at home cause me stress when I work remotely.
3. Family conflict causes me stress when I work remotely.
4. The increase in my working hours causes me stress when I work remotely.
5. Interference with my rest/leave time causes me stress when I work remotely.
6. Being in a constant state of work causes me stress when I work remotely.
7. Lack of feedback causes me stress when I work remotely.
8. Lack of communication causes me stress when I work remotely.
9. Lack of organizational support (managerial, financial, technical, etc.) causes me stress when I work remotely.
10. Lack of change of location causes me stress when I work remotely.
11. Being immobile causes me stress when I work remotely.
12. The monotony of work causes me stress when I work remotely.
13. Thinking I am not working causes me stress when I work remotely.
14. Fear of underperforming causes me stress when I work remotely.
15. Fear of losing my job causes me stress when I work remotely.

*Note.* 1–3 work–life imbalance; 4–6: overworking; 7–9: lack of communication; 10–12: inactivity; 13–15: job insecurity; 1–15: remote work stress.