

RESEARCH ARTICLE

Is it because of boredom or workload? A multilevel investigation of the effects of workload and job boredom on daily work outcomes¹

Ayla Avcı¹ | Metin Çetin²

¹ Assist.Prof. Dr., Antalya Belek University, Antalya/Turkey
ORCID: [0000-0002-1871-4090](https://orcid.org/0000-0002-1871-4090)
E-Mail: ayla.avci@belek.edu.tr

² Dr, Istanbul Sabahattin Zaim University, Istanbul/Turkey
ORCID: [0000-0001-9773-9714](https://orcid.org/0000-0001-9773-9714)
E-Mail: mehmetcetinob@gmail.com

Corresponding Author:
Ayla Avcı

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Abstract

Studies report that both job boredom and excessive workload have detrimental effects on employee well-being and work outcomes. Although these variables fluctuate daily, longitudinal studies addressing within- and between-person variance in the variables and how they relate to daily work outcomes are scarce. The aim of this study was to determine how daily workload and daily job boredom are associated with daily emotional labor, stress, job satisfaction, and positive and negative affect. Multilevel data were collected at six time points (five daily, one person level). Person level (n=137) and day level (685) data were matched to conduct multilevel analyses using the software HLM. Both workload and job boredom showed substantial daily variability. The results of multilevel analyses revealed that job boredom had wider negative effects than workload in general. While daily job boredom was positively related to work stress, negative affect, and emotional labor, it demonstrated a significant negative relationship with positive affect. Daily workload was significantly related to only stress and negative affect. Using multilevel methods, it is possible to investigate the variance and relationships of the concepts both at general and daily levels. The results emphasize the negative effects of daily job boredom, which can be more critical compared to workload. The results also have important practical implications for managers.

Keywords: Job Boredom, Workload, Job Stress, Job Satisfaction, PANA, Emotional Labor.

Öz

Literatür hem iş sıkıntısının hem de aşırı iş yükünün çalışanların refahı ve iş sonuçları üzerinde zararlı etkileri olduğunu bildirmektedir. Bu değişkenler günlük olarak dalgalansada, değişkenlerdeki kişi içi ve kişiler arası varyansı ve bunların günlük iş sonuçlarıyla nasıl ilişkili olduğunu ele alan boylamsal çalışmalar azdır. Bu çalışmanın amacı, günlük iş yükü ve günlük iş sıkıntısının günlük duygusal emek, stres, iş tatmini ve olumlu ve olumsuz duygulanım ile nasıl ilişkili olduğunu belirlemektir. Çalışma kapsamında altı farklı zaman noktasında çok düzeyli veri toplanmıştır (beşi günlük ve biri kişi düzeyinde). HLM yazılımı kullanılarak çok düzeyli analizler yapmak için kişi düzeyi (n=137) ve gün düzeyi (685) veriler eşleştirilmiştir. Hem iş yükü hem de işten sıkılma değişkenlerinin önemli ölçüde günlük varyans gösterdiği saptanmıştır. Çok düzeyli analizlerin sonuçları, işten sıkılmanın genel olarak iş yükünden daha geniş olumsuz etkilere sahip olduğunu ortaya koymuştur. Günlük iş sıkıntısı, iş stresi, olumsuz duygulanım ve duygusal emek ile olumlu yönde ilişkiliyken, olumlu duygulanım ile anlamlı bir ilişki göstermiştir. Günlük iş yükünün, yalnızca stres ve olumsuz duygulanımla anlamlı seviyede ilişkili olduğu bulgulanmıştır. Çok düzeyli yöntemler kullanılarak hem genel hem de günlük düzeyde kavramların varyans ve ilişkilerinin araştırılması mümkündür. Sonuçlar, iş yüküne kıyasla daha kritik olabilen günlük iş sıkıntısının olumsuz etkilerini vurgulamaktadır. Sonuçların ayrıca yöneticiler için de önemli pratik çıkarımları tartışılmıştır.

Anahtar Kelimeler: İş Sıkıntısı, İş Yükü, İş Stresi, İş Tatmini, PANA, Duygusal Emek.

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Introduction

Due to rapid technological and economic developments, inter-institutional competition is increasing. As a result of this competition, employees are faced with intense workload due to the performance-enhancing measures adopted by companies. Especially for service firms, improving business performance and retaining productive employees are critical success factors (Walsh & Bartikowski, 2013). Job stress experienced by employees due to excessive workload can cause a decrease in job satisfaction (Kanbur, 2018, p.131). In addition to the high workload and demands, job boredom may also have negative consequences for employees. Work simplification practices implemented at the beginning of the last century caused problems such as monotony, boredom, and job dissatisfaction, resulting in negative work behaviors (Bilgiç, 2008, p.67).

In the present study, based on job characteristics theory (Hackman & Oldham, 1975) and job demands–resources theory (Demerouti et al., 2001), the effects of daily workload and job boredom on job stress, emotional labor, negative and positive affect, and job satisfaction are investigated via a multilevel research design.

Extant research and theory suggest that both job boredom and high workload have adverse effects on work outcomes (Van Hooff & Van Hooff, 2017 Adil & Baig, 2018). However, no studies addressed have their effects together and used a nested research design where both within-person and between-person variances are considered. In the present study, the aim was to investigate the nature of these effects through a longitudinal research design considering between-person and within-person fluctuations with daily measurements. Given that workload and job boredom, as well as the outcome variables, can show significant daily variability, static evaluation of the concepts with a measurement at only one time point will not be sufficient for a full and correct understanding of their relations. Thus, in the present study, the effects of workload and job boredom, which can differ among employees and on different days, are addressed together in a nested structure and via multilevel modeling.

Review of the literature and development of hypotheses

Work provides an important domain for individuals to experience various feelings and satisfy their various needs. Among them, on one hand, work enables employees to experience positive affect, job satisfaction, and a sense of achievement; on the other hand, employees can experience negative affect, job stress, and emotional labor. Employees' positive and negative feelings about their jobs are reflected in their work and their personal lives. Moreover, increasing the positive feelings of employees about their jobs also increases work efficiency (Çakıcı et al., 2013). Thus, investigation of the antecedents of such attitudes and work experiences is vital both for employee well-being and organizational outcomes.

The job characteristics theory proposed by Hackman and Oldham (1975) suggests that challenging and meaningful aspects of jobs are related to positive outcomes, while monotonous and boring aspects are associated with negative outcomes. Based on this, we may assume that when a job is too demanding it can cause negativities and when a job is characterized by too simple and unmotivating aspects it can also result in negative consequences. Together with job characteristics theory, job demands–resources theory (Demerouti et al., 2001) is the main theoretical pillar of the present study as it suggests that discrepancy or harmony between job demands and resources also yields important organizational outcomes. Herein, we consider excessive workload as a job demand and boredom as a lack of job resources and both can harm the balance and result in consequences. In other words, in the present study, workload and job boredom are addressed as the antecedents of various positive and negative organizational variables. In particular, the relationships between workload and job boredom and emotional labor, work stress, positive and negative affect (PANA), and job satisfaction were evaluated through multilevel and longitudinal analyses. Negative outcomes of both excessive workload and job boredom are reported in the extant research. For instance, excessive workload causes job

dissatisfaction, which has important consequences for institutions (Çalışkan & Bekmezci, 2019). Due to the rapid increase in competition, institutions set targets to increase their sales in order to expand their competitive advantage and market share. Since these targets are demanding and challenging, they increase the workload of employees and cause them to experience work stress (Faiz, 2019).

Workload, job boredom, and emotional labor

As a result of global competition, organizations may ask employees to do more overtime. However, when the workload of employees increases, work pressure also increases. Problems such as psychological and physiological burnout and low job satisfaction arise in those who work under pressure for a long time (Lloyd et al., 2002). Low job satisfaction is another result of excessive workload (Osifila & Abimbola 2020). Increased workload also results in emotional labor (Hu et al., 2018: 2093). In addition, individuals with different levels of emotional labor may perceive and evaluate low workload differently. Both work overload and work underload are reported to be significantly and negatively related to satisfaction (Newton et al., 2016). Although the link between job boredom and emotional labor is not examined directly, affective and emotionally negative outcomes for job boredom are reported in various studies (e.g., van Hooff & van Hooft, 2014). Therefore, the following hypotheses are formulated:

H1: There is a significant and positive relationship between workload and emotional labor.

H2: There is a significant and positive relationship between job boredom and emotional labor.

Workload, job boredom, and job stress

In addition to physical, social, or economic reasons, work stress factors also have causes related to the work itself, such as heavy workload (Noblet & Lamontagne, 2006). Stress-inducing factors that negatively affect individuals' psychological well-being are largely rooted in their work lives. Individuals tend to avoid excessive

work demands and tasks they would not normally succeed in or cope with. However, due to continuance commitment or compelling circumstances they often undertake excessive workload and duties that exceed their work resources. The imbalance between employees' workload and their resources (such as experience) can cause them to experience many difficulties (Eroğlu, 2010). In line with job demands and resources theory (Bakker & Demerouti, 2017), when employees' job demands exceed their job resources, it results in job stress. Workload, however, is not the only job demand; job boredom can have critical effects on job demands and resources as well (Reijseger et al., 2013). It has been demonstrated that errors at work can arise from excessive workload; for instance, multiple pilot errors are caused by workload and stress (Hart & Bortolussi, 1984). The workload-stress relationship is valid for various occupations. For instance, the heavy workloads of journalists cause stress and burnout (Liu and Lo, 2017).

Moreover, job boredom can also be an important source of stress. For individuals experiencing boredom in their jobs, it can be very stressful and difficult to remain alert and focused to accomplish the tasks required (Scerbo, 1998). Job boredom and monotony can have harmful effects on the well-being of employees as they are significant sources of stress (Thackray, 1981).

Therefore, in the present study, it is assumed that:

H3: There is a significant and positive relationship between workload and work stress.

H4: There is a significant and positive relationship between job boredom and work stress.

Workload, job boredom, and job satisfaction

Job satisfaction is addressed in research as a crucial variable that can also affect various organizational and individual outcomes (Faragher et al., 2013). It can serve as an antecedent for employee engagement as well (Abraham, 2012). When perceived workload is hefty, job satisfaction can be harmed (Groenewegen & Hutten, 1991). Therefore, excessive workload can affect job satisfaction in a negative way (Munandar et al., 2019). On the other

hand, the satisfaction of those with very low workloads at work may also be affected negatively (Newton et al., 2016). Employees' success in facing job challenges and overcoming them are factors that create job satisfaction. Thus, work without a sufficient stimulus can also be a source of dissatisfaction (Harju & Hakanen, 2016).

Accordingly, as job specialization increases, monotony also increases. Short-term and simple tasks also cause monotony. As a result, job distress and job dissatisfaction can arise in employees, which are undesirable situations for management (Hulin & Blood, 1968, p.42).

Built on the above reasoning and pattern of findings it was assumed that:

H5: There is a significant and negative relationship between workload and job satisfaction.

H6: There is a significant and negative relationship between job boredom and job satisfaction.

Workload, job boredom, and negative and positive affect

The relationship between workload and well-being is well established (Geurts et al., 2003). As a form of well-being, negative and positive affect and their relationship with workload have been addressed in multiple studies. For instance, Ilies et al. (2007) report that workload has a significant relationship with affect at work and at home. Moreover, negative affect has been associated with a lack of control in the workplace due to workload and fluctuations in workload (Moyle, 1995).

Laferton et al. (2019) reported that, based on day level measures, the intrapersonal relationship between workload and positive affect is significant. Moreover, Ugwu and Asogva (2018) provided evidence for the association between workload and positive affect.

Furthermore, job boredom is also associated with multiple well-being related variables. Fahlman et al. (2013) report that job boredom is related significantly with life satisfaction, anxiety, and depression. It has also been shown that job boredom has a positive relationship with negative emotions such as anger (Fahlman et al., 2013; Cao & An, 2019). Job boredom can affect job resources and organizational outcomes in organizations. For

this reason, it is necessary to identify risk factors beyond monotony for job boredom (Reijseger et al., 2013).

Therefore, in the current study, the following hypotheses are suggested:

H7: There is a significant and positive relationship between workload and negative affect.

H8: There is a significant and negative relationship between workload and positive affect.

H9: There is a significant and positive relationship between job boredom and negative affect.

H10: There is a significant and negative relationship between job boredom and positive affect.

Methodology

Research model

Based on the literature and the information above, workload and job boredom have been proposed to have negative effects on the individual work outputs of employees. The model of the individual work outputs of workload and job boredom is given in Figure 1. In the present study, whether the workload and job boredom experienced by employees in public institutions at daily level affect job stress, emotional labor, positive/negative affect, and job satisfaction was examined through a multilevel and longitudinal research structure.

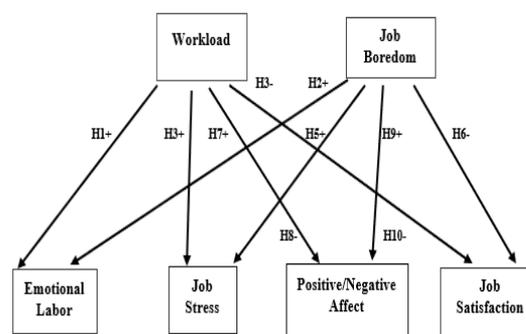


Figure 1: Hypotheses and the research model.

Sample

One hundred thirty-seven respondents who filled out the daily and general surveys working in public institutions participated in the research. For

five consecutive working days, the participants were asked to complete the daily questionnaire and then the general questionnaire was distributed. One hundred thirty-seven general questionnaires and 685 (5 × 137) daily questionnaires were collected from the 137 participants.

Table 1. Sample characteristics

		Frequency	%
<i>Gender</i>	Male	100	73.0
	Female	37	27.0
<i>Marital Status</i>	Married	117	85.4
	Single	20	14.6
<i>Age group</i>	31-40	5	3.6
	41-50	36	26.3
	51-60	42	30.7
	60 and above	54	39.9
<i>Education</i>	Primary education	4	2.9
	Middle school	2	1.5
	High school	26	19.0
	University	63	46.0
	Graduate Degree	42	30.7
<i>Tenure (year)</i>	Less than 1 year	3	2.2
	1-5	23	16.8
	6-10	12	8.8
	11-15	19	13.9
	16-20	17	12.4
	21 year and above	60	43.8
	Missing	3	2.2
<i>Executive position</i>	Yes	20	14.6
	No	117	85.4
<i>After-hours work</i>	Never	46	33.6
	Once or twice a year	40	29.2
	Once or twice or a month	16	11.7
	Once or twice a week	25	18.2
	Every day	10	7.3

Seventy-three percent of the participants who filled out the daily questionnaires were men and 27 percent were women. The table shows that 85.4 percent of the participants who participated in the research were married and 14.6 percent were single. While 3.6 percent of the participants were between the ages of 31 and 40, 26.3 percent were between 41 and 50, 30.7 percent were between 51 and 60, and 39.9 percent were over 60. Regarding

education level, 2.9 percent of the respondents had graduated from primary school, 1.5 percent from secondary school, 19 percent from high school, 46 percent from university, and 30.7 percent had graduate education. A managerial position was held by 14.6 percent of the participants. While 33.6 percent of the participants responded never to the question regarding after-hours working, 29.2 percent responded once or twice a year, 11.7 percent responded once or twice a month, 18.2 percent responded once or twice a week twice, and 7.3 percent responded always. The details regarding the demographics of the sample are presented in Table 1

Data analysis tools and techniques

Two separate questionnaires were applied as daily and general scales to collect data in the present study. For the multilevel and nested data analysis of the study, the software packages SPSS 23, AMOS 26, and HLM were used. Specifically, confirmatory factor analysis (CFA), Cronbach's alpha reliability analysis, correlation analysis, and multilevel hierarchical regression analysis were used to interpret the results and test the hypotheses.

General Survey

There were 49 questions in the general questionnaires applied only once to the respondents. In the first part of the questionnaire, there were nine questions aiming to determine the demographic characteristics of the participants. In the second part of the research, the Minnesota Satisfaction Questionnaire, which was developed by Weiss et al. (1967) and adapted into Turkish by Baycan (1985), was used. There were 20 questions to measure job satisfaction. In the third part of the questionnaire, there was a seven-item scale aimed to measure job stress; it was developed by House and Rizzo (1972) and adapted into Turkish by Efeoğlu (2006). The fourth part of the questionnaire contained the Job Boredom Scale, consisting of 17 questions, developed by Lee (1986) and adapted into Turkish by Coşkun (2012). In the last part of the questionnaire, the Quantitative Workload

Scale, consisting of five questions, developed by Spector and Jex (1998) and adapted into Turkish by Keser et al. (2017), was used.

Daily Survey

The daily questionnaire applied in the research and filled out by the participants for five working days consisted of 19 questions and four parts. The first part of the questionnaire (six items), included the Emotional Labor Scale (Diefendorff et al., 2005). There were three job boredom questions applied using the Job Distress Scale developed by Lee (1986) and adapted into Turkish by Coşkun (2012). In the daily questionnaire, there were also three questions to measure the workload applied using the Quantitative Workload Scale developed by Spector and Jex (1998) and adapted into Turkish by Keser et al. (2017). In the second part of the questionnaire, items from the Positive and Negative Affect Schedule (PANAS), developed by Watson et al. (1988), were used. Three negative affects (NA) with the expressions distressed, unhappy, and angry and two positive affects (PA) with the expressions strong and enthusiastic were used. There was one work stress question taken from the scale that was developed by House and Rizzo (1972) and adapted into Turkish by Efeoğlu (2006) in order to determine the daily work stress levels of the participants. Finally, a single-item job satisfaction scale (Dolbier et al., 2005) was used.

Results

Preliminary analyses

CFA (performed via Amos 26) results for the model, including job boredom, workload, positive/negative affect, and emotional labor, revealed adequate to good fit indexes when all dimensions were loaded on their respective factor (X^2/df : 4.894; RMSEA: 0.075; CFI: 0.944; GFI: 0.924; AGFI: 0.0881). These results were compared to an alternative where all items were formed into a single factor. When all items are considered in one dimension, the results of the fit index indicated poor fit (RMSEA: 0.190; CFI: 0.495; GFI: 0.507;

AGFI: 0.552). This pattern of findings indicates a good fit for the measurement structure.

Moreover, the Cronbach's alpha reliability scores were calculated for each measure and the results indicated high reliabilities (0.8 and above).

The correlation analysis results provided evidence for assumed significant relationships between variables. There was a positive and significant relationship between workload and negative affect, work stress, and emotional labor (all dimensions). The results also indicated a negative relationship between workload and job satisfaction. A significant and negative relationship was found between job boredom and positive affect, job satisfaction, and job stress. In addition, the subdimensions emotional labor, sincere emotions, deep acting, and surface acting were positively related with job boredom.

There was a significant and negative relationship between job boredom and positive affect and a significant and positive relationship between job boredom and negative emotion. No association was found between workload and positive affect. Table 2 contains data on the correlations between the variables.

Table 2. Correlation analysis results

No	Variable	1	2	3	4	5	6	7	8
1	Negative affect	1							
2	Positive affect	-.303**	1						
3	Workload	.386**	0.07	1					
4	Job boredom	.502**	-.257**	.302**	1				
5	Sincere emotions	.491**	-.279**	.327**	.532**	1			
6	Deep acting	.413**	-.022	.371**	.355**	.401**	1		
7	Surface acting	.551**	-.222**	.391**	.503**	.684**	.455**	1	
8	Job satisfaction	-.348**	.467**	-.106**	-.385**	-.308**	-.162**	-.242**	1
9	Job stress	.624**	-.230**	.446**	.387**	.407**	.296**	.430**	-.290**

**The correlations are significant at the 0.01 level (2-tailed)

*The correlation is significant at the 0.05 level (2-tailed).

Hierarchical Linear Modeling (HLM) Analysis

A significant and negative relationship was found between person-level (general) job boredom and employees' job satisfaction, which was a control variable at level 2 (-0.53; $p=0.01$). Again, a negative interlevel effect was found between having a managerial position and daily job satisfaction (-0.52; $p<0.05$) (Table 3). Day level job boredom was related with job satisfaction (-0.11; $p<0.05$), but

daily workload showed no significant relationship (Table 3).

Table 3. Multilevel hierarchical regression analysis explaining job satisfaction

Fixed Effect	Coefficient	Std. Error	t-Ratio	d.f.	P
Executive position	-0.520	0.228	-2.282	125	0.024
After hours work	-0.015	0.061	-0.245	125	0.807
General job boredom	-0.532	0.151	-3.511	125	<0.001
General job satisfaction	0.023	0.138	0.173	125	0.863
Daily job stress	-0.007	0.115	-0.064	125	0.949
General workload	0.150	0.093	1.609	125	0.110
Daily job boredom	-0.114	0.053	-2.139	546	0.033
Daily workload	-0.003	0.053	-0.072	546	0.943

In the analysis performed for explaining job stress (Table 4), a significant and positive relationship was found between the daily job stress of employees and general job stress (0.47; p=0.01). There was a significant and positive relationship between employees' daily workload and daily job stress (0.17; p<0.05) and between daily job boredom and daily job stress (0.15; p<0.05).

Table 4. Multilevel hierarchical regression analysis explaining work stress

Fixed effect	Coeff.	Std. Error	t-Ratio	d.f.	P
General job boredom	0.177	0.172	1.034	125	0.303
General job satisfaction	0.145	0.151	0.957	125	0.340
General job stress	0.471	0.126	3.722	125	<0.001
General workload	0.058	0.102	0.571	125	0.569
Daily job boredom	0.154	0.048	3.188	546	0.002
Daily workload	0.179	0.057	3.127	546	0.002

The HLM results for the deep acting dimension (Table 5) revealed that general job boredom (one of the control variables at the person level) has a significant and positive effect on daily deep acting (0.49; p=0.01). The deep acting dimension of daily emotional labor was significantly and positively related to the daily job boredom of the employees

(0.11; p=0.01). The results were nonsignificant for daily workload.

Table 5. Multilevel hierarchical regression analysis explaining the deep acting dimension

Fixed Effect	Coefficient	Std. Error	t-Ratio	d.f.	P
General job boredom	0.499	0.202	2.473	125	0.015
General job satisfaction	0.126	0.184	0.684	125	0.495
General job stress	-0.144	0.154	-0.938	125	0.350
General workload	0.156	0.125	1.249	125	0.214
Daily job boredom	0.112	0.045	2.479	546	0.013
Daily workload	-0.037	0.044	-0.840	546	0.401

The analyses showed that sincere emotions, which is an emotional labor dimension, was significantly and positively related to general job boredom (0.67; p=0.01). Daily job boredom was also associated with daily sincere emotions significantly and positively (0.21; p=0.001). No significant relationship was found with daily workload (Table 6)

Table 6. Multilevel hierarchical regression analysis explaining the sincere emotions dimension.

Fixed Effect	Coefficient	Std. Error	t-Ratio	d.f.	P
General job boredom	0.672	0.192	3.493	125	<0.001
General job satisfaction	0.132	0.175	0.753	125	0.543
General job stress	-0.003	0.146	-0.025	125	0.980
General workload	0.002	0.119	0.023	125	0.981
Daily job boredom	0.213	0.044	4.855	546	<0.001
Daily workload	0.044	0.043	1.015	546	0.311

Surface acting, one of the dimensions of daily emotional labor, was positively related to the daily job boredom levels of employees (0.21; p=0.001). The general job boredom of employees (one of the control variables at the person level) had a significant and positive association with the daily surface acting dimension (0.54; p<0.05). No significant relationship was found for daily workload (Table 7).

Table 7. Multilevel hierarchical regression analysis explaining the surface acting dimension.

Fixed Effect	Coefficient	Std. Error	t-Ratio	d.f.	P
General job boredom	0.542	0.171	3.165	125	0.002
General job satisfaction	0.217	0.156	1.388	125	0.168
General job stress	0.147	0.130	1.127	125	0.262
General workload	0.113	0.106	1.066	125	0.288
Daily job boredom	0.210	0.039	5.375	546	<0.001
Daily workload	0.039	0.038	1.006	546	0.315

The general job boredom levels of employees, which is one of the control variables at the person level, is related to daily negative affect significantly and positively (0.43; $p=0.01$). Employees' daily workload (0.10; $p=0.01$) and daily job boredom (0.019; $p=0.001$) have a positive and significant relationship with daily negative affect (Table 8).

Table 8. Multilevel hierarchical regression analysis explaining negative affect

Fixed Effect	Coeff.	Std. Error	t-Ratio	d.f.	P
General job boredom	0.438	0.176	2.493	125	0.014
General job satisfaction	0.096	0.160	0.600	125	0.550
General job stress	0.228	0.134	1.702	125	0.091
General workload	0.027	0.108	0.256	125	0.798
Daily job boredom	0.192	0.043	4.429	546	<0.001
Daily workload	0.103	0.043	2.400	546	0.017

A significant and negative relationship was reported between the general job boredom (person level) of the employees and daily positive affect (-0.74; $p=0.001$). Daily job boredom had a negative and significant relationship with daily positive affect (-0.17; $p=0.001$). No significant effects were found for daily workload (Table 9).

The hypotheses of the current research were created at the daily level.

H1: There is a significant and positive relationship between workload and emotional labor.

Based on the results of the HLM analysis, the H1 hypothesis was rejected because no relationship was found between daily workload and the

subdimensions of daily emotional labor (deep acting, sincere emotions, and surface acting).

Table 9. Multilevel hierarchical regression analysis explaining positive affect

Fixed Effect	Coefficient	Std. Error	t-Ratio	d.f.	P
General job boredom	-0.747	0.186	-4.001	125	<0.001
General job satisfaction	-0.101	0.170	-0.598	125	0.551
General job stress	0.044	0.142	0.311	125	0.756
General workload	0.200	0.115	1.736	125	0.085
Daily job boredom	-0.171	0.045	-3.723	546	<0.001
Daily workload	0.060	0.045	1.332	546	0.184

Summary of the hypotheses testing results

H2: There is a significant and positive relationship between job boredom and emotional labor.

All dimensions of daily emotional labor were significantly and positively related to the daily job boredom of the employees. Thus, the H2 hypothesis of the research was confirmed.

H3: There is a significant and positive relationship between workload and job stress.

There was a significant and positive relationship between daily workload and daily job stress. Therefore, the H3 hypothesis was accepted.

H4: There is a significant and positive relationship between job boredom and job stress.

According to the data obtained, there is a significant and positive relationship between the daily job boredom of employees and daily job stress. The H4 hypothesis was thus accepted.

H5: There is a significant and negative relationship between workload and job satisfaction.

Considering the daily independent variables, it was found that daily workload did not significantly affect daily job satisfaction. The H5 hypothesis is rejected.

H6: There is a significant and negative relationship between job boredom and job satisfaction.

Daily work boredom had a significant and negative association with job satisfaction. This confirms the H6 hypothesis.

H7: There is a significant and positive relationship between workload and negative affect.

Employees' daily workload has a significant and positive relationship with daily negative affect. Accordingly, the H7 hypothesis of the research was confirmed.

H8: There is a significant and negative relationship between workload and positive affect.

In the study, daily workload had no effect on daily positive affect. In this case, the H8 hypothesis of the research was rejected.

H9: There is a significant and positive relationship between job boredom and negative affect.

In the study, there was a significant and positive relationship between the daily job boredom and daily negative affect of employees. Based on this result, the H9 hypothesis was accepted.

H10: There is a significant and negative relationship between job boredom and positive affect.

According to the analysis results, the daily job boredom of employees has a negative and significant relationship with daily positive affect. Hence, the H10 hypothesis was confirmed.

Conclusions and discussion

Based on the study findings, it can be inferred that job boredom among public employees is more harmful and dangerous than workload. Although both variables demonstrated detrimental effects on positive variables, job boredom had a wider effect compared to workload. It is also important to consider workloads of employees in the light of providing sufficient work challenge and stimulus to motivate them. Work underload can be considered a reason for job boredom; however, they can exist together simultaneously. Building on job characteristics theory (Hackman and Oldham, 1975) we may speculate that job boredom largely arises from poor work design. As the findings of the current study support the negative effects of boredom on various organizational and individual outcomes, well-designed jobs and well-adjusted workloads are critical for employees' well-being. As public institutions generally have a formal and rule-based structure, it is thought that the progress of the work in routine working order

increases the job boredom of employees. Higher workload in the private sector compared to public institutions may make employees more active. It is reported that in public institutions monotonous work designs often cause job boredom (Surbhi, 2018). On the other hand, based on the job demands-resources theory (Bakker & Demerouti, 2017), another rationale for the negative consequences of excessive workload and job boredom is their link with the lack of job resources and increased job demands.

In general, there is an opinion that employees in the public sector may perceive higher detrimental effect of job boredom than those in the private sector. At the same time, due to the job security of public employees, they can show maximum performance in their workplaces. In the private sector, high levels of stress and burnout are seen, as job security is at risk (Usman and Raja, 2013).

For this reason, in research to be conducted on public administration, it is necessary to evaluate aspects of the work related to workload and to determine how these affect the welfare of the employees and what organizations can do to improve the positive experiences of employees about their work (Nguyen and Tuan, 2021).

The multilevel and longitudinal research design of the present study strengthens the findings and its contribution by giving it the power to investigate day level relationships and for determining general level variation. The results showed that person level versions of the variables can be associated in a different way than the daily level versions. It is important to examine how these variables are related in daily terms as variables can fluctuate over time.

The study was performed with a specific sample (public institutions), which may show unique characteristics. It is recommended for researchers to conduct sector comparisons and multilevel analyses for further examination of the effects of workload and job boredom.

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