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Research Article

Teacher perceived emotional job demands scale: Validity, reliability and invariance study

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Abstract: The aim of this study was to develop a measurement tool to determine teachers' perceived emotional job demands. The item pool created as a result of a literature review conducted by researchers was subjected to expert evaluation for content, appearance, and meaning validity, and finally, a draft scale form was created. The draft form was applied to 207 teachers, and exploratory factor analysis was conducted with the obtained data, revealing a one-dimensional scale structure consisting of seven items. To confirm this structure, data were collected from 283 teachers, and the one-factor scale structure was confirmed based on fit indices estimated through confirmatory factor analysis. Furthermore, it was observed that the scale met the conditions of convergent validity and reliability as a result of the analyses conducted. Measurement invariance of the scale was tested for gender (female-male), marital status (married-single), and age (under 40 and over 40) categories, and it was found that the scale met the requirements of configural, metric, scalar, and strict invariance. In the final stage, the scale's nomological validity was established by examining its relationship with burnout and work engagement. Data collected from 245 teachers were analyzed using structural equation modeling, and the significant relationships confirmed the scale's nomological validity. In conclusion, it was determined that the scale in question is a valid and reliable tool that can be used to measure teachers' perception of emotional job demands.

1. INTRODUCTION

Unfortunately, teachers who start their careers with high expectations, hopes, and ideals can often lose their positive attitudes toward their profession in a short period (Pines, 2002). This is because teaching is both a stressful profession (Borg & Riding, 1991), and teachers often find themselves faced with many challenging situations that push their limits (Chang, 2009; Skaalvik & Skaalvik, 2011). Especially in recent years, the reforms and changes in the education systems of countries (Skaalvik & Skaalvik, 2015) and the increasing professionalization of the profession have led to a steady increase in responsibilities associated

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with the profession (Bartlett, 2004). In Türkiye, when the structural features of the current system are considered together with the deep reforms and rapid changes in education, the increasing responsibilities of the profession are felt much more clearly. The relatively high class sizes in Türkiye increase the obligation of teachers to respond to individual needs (Özdemir *et al*., 2024). Additionally, rising parental expectations and the added responsibilities imposed on teachers during the digital transformation of education expose teachers to emotional job demands (Uslukaya & Demirtaş, 2023). Moreover, comprehensive policy changes such as Türkiye's 2023 Education Vision Document not only emphasize academic success but also raise expectations for teachers to support students' social and emotional development (Özer, 2018).

In recent years, significant immigration from various countries (e.g., Afghanistan, Pakistan, Syria) has further diversified student demographics in Türkiye. This growing diversity requires teachers to adapt to students with different linguistic, cultural, and educational backgrounds. Efforts to support the adaptation process and academic success of these students have notably increased teachers' workload (Bozkurt, 2023). Additionally, addressing the psychological and social challenges stemming from these students' traumatic experiences necessitates greater emotional sensitivity from teachers (Küçüksüleymanoğlu & Kurt, 2020). This heightens the frequency of emotionally charged interactions in the classroom. Such expectations increasingly expose teachers to emotional demands in schools, requiring them to engage in emotionally intensive interactions. Emotional job demands, which involve experiencing and managing emotionally charged situations, interactions, and events in the workplace (Tuxford & Bradley, 2015), unfortunately, place significant psychological strain on teachers (Taris & Schreurs, 2009).

Emotional job demands constitute one dimension of emotional labor in the literature. Emotional labor is a concept that refers to the efforts of individuals to manage their emotions for a specific purpose in business life. This concept was first defined by Hochschild (1983) and later developed in the literature under two main dimensions: surface acting and deep acting. While surface acting requires the individual to pretend to express emotions that he/she does not feel, deep acting involves the individual's effort to actually feel the emotions appropriate to the job requirements (Grandey, 2002). In addition to these two approaches, more recent studies have emphasized the importance of conceptualizing emotional labor by focusing on job demands. For example, Brotheridge and Grandey (2002) conceptualized emotional labor under two main headings: employee-focused approach and job-focused approach. Employee-focused emotional labor refers to the process or experience of managing emotions and expressions to meet job demands. In contrast, job-focused emotional labor (i.e., emotional job demands) corresponds to job expectations related to expressing specific emotions (Schaubroeck & Jones, 2000) and demands related to the frequency of interactions with stakeholders (Morris & Feldman, 1997). Therefore, job-focused emotional labor indicates the level of emotional demands in a profession (Brotheridge & Grandey, 2002). Employee-focused emotional labor captures an individual's perspective, and this perspective does not align with the job-focused concept from which the concept of job demands is derived (Näring *et al*., 2012). In this sense, job-focused emotional demands correspond to challenging situations inherent in the essence of a profession.

Morris and Feldman (1997) state that these demands are directly related to the frequency and intensity of interaction in the work environment. For example, in professions where human relations are intense, such as teaching, individuals are expected to display both a positive emotional state and emotional resilience. Therefore, emotional job demands are not limited to the perceptions of the individual but are directly related to the requirements arising from the nature of the profession (Brotheridge & Grandey, 2002). Thus, emotional job demands represent the emotional standards that employees must fulfill depending on the nature of the job. These standards are often shaped by the frequency, intensity, and emotional content of professional interactions and have both psychological and physiological effects on individuals (Näring *et al.*, 2012).

In countries like Türkiye that are still developing, the responsibility for achieving globally desired success heavily relies on education and, consequently, on teachers. These responsibilities not only increase the physical and cognitive demands on teachers but also elevate the emotional demands placed upon them. As with other organizations, the success of educational institutions is partly measured by their ability to meet these emotional demands (Scheibe *et al*., 2015). Consequently, the teaching profession has evolved from its traditional molds, transforming into a service-oriented profession where addressing emotional demands is increasingly essential (Tuxford & Bradley, 2015).

For instance, teachers must maintain patience, fairness, and self-control when dealing with students who have disciplinary issues. They are also responsible for showing sensitivity to students' familial and social challenges and adopting more supportive behaviors. Moreover, attending to the high expectations of parents regarding their children's academic performance or behavior has become a fundamental duty of teachers (Bodenheimer & Shuster, 2020). Teachers must also respond to the performance pressures, change requests, and demands for implementing new practices from central administration and school management. As a result, in addition to the emotionally charged interactions and demands inherent in the profession, teachers have increasingly been exposed to these emotional demands in the context of a changing global order. Indeed, some researchers have found that employees in high-contact professions, such as teaching, are subject to increasing emotional demands over time (e.g., Peng, 2017).

Although policymakers, practitioners, and service recipients desire that teachers effectively manage emotional demands, such demands inevitably come at a cost for teachers. Emotional demands require continuous emotional effort, which can deplete an individual’s resources and make them vulnerable to job-related difficulties (Bakker & Demerouti, 2017). Some researchers have highlighted the risks posed to teachers and schools, noting that those exposed to these demands often experience increased occupational stress, along with reduced well-being, performance, and productivity (Näring *et al.*, 2012). Traditional resource and demand models have repeatedly emphasized the potential risks associated with such demands. For example, the Conservation of Resources (COR) model (Hobfoll, 2002) highlights that under challenging conditions, such as emotional demands, employees’ efforts to conserve their resources and minimize the threat of resource loss can lead to negative outcomes. Additionally, the Job Demands-Resources (JD-R) model (Demerouti *et al.*, 2001) predicts that emotionally taxing job demands can deplete an individual’s energy, thereby reducing their well-being, performance, and productivity. Numerous empirical studies testing these models’ assumptions have consistently demonstrated that emotional job demands can negatively affect employees’ occupational well-being, thereby limiting their performance and productivity (Lavelle *et al.*, 2021; Rughoobur-Seetah, 2024; Tuxford & Bradley, 2015; Van den Heuvel *et al.*, 2010).

While these international studies highlight the risks of emotional demands for employees and, consequently, for teachers, it is essential to empirically test the effects of such demands in the context of Türkiye. On the other hand, studies conducted in Türkiye have generally focused on the employee-oriented conceptualization of emotional labor, analyzing the impacts of employees' surface and deep acting behaviors on their professional lives and well-being. One significant reason for this is the nature of the measurement tools used. The scales employed in Türkiye have been developed or adapted based on the employee-oriented approach to emotional labor (e.g., Begenirbas & Yalçın, 2012). However, local studies have largely overlooked the perspective of emotional labor specific to the teaching profession, namely emotional job demands. This situation may stem from the absence of a specific measurement tool designed to assess teachers' emotional job demands in Türkiye. This study aims to fill this gap by developing the "Teachers’ Perceived Emotional Job Demands Scale (T-PEJDS)." During the development process, the structure of the scale was first determined and validated using exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Subsequently,

reliability analyses were conducted, and the scale was subjected to measurement invariance tests to ensure its suitability for group comparisons. In the final stage, the scale's nomological validity was assessed by examining its relationship with burnout and work engagement, as theoretically linked constructs (Bakker & Demerouti, 2017). The use of this scale in empirical studies is expected to contribute to a better understanding of the emotional job demands faced by teachers in Türkiye and to inform practices aimed at improving teachers' well-being and performance.

2. METHOD

2.1. Research Sample

The data used to develop the T-PEJDS were collected from three participant groups working in the city center of Elazığ. To identify the participants of the study, cluster sampling, one of the probabilistic sampling methods, was chosen (Creswell & Creswell, 2017). This method offers a cost-effective and time-efficient way to collect data from a large and heterogeneous population while also allowing for a sample that better represents the population (Groves *et al.*, 2011). Cluster sampling is frequently employed in educational research and provides a practical solution under the field conditions of the study. In the first stage, 100 schools were randomly selected from over 200 schools located in the Elazığ city center. The administrators of these schools were contacted and informed about the purpose and scope of the study. Out of the 100 administrators, 76 agreed to allow the surveys to be conducted in their schools. After creating a form that included scale items and demographic information, the research team visited these schools to administer the forms to teachers. In the first stage, 100 schools were randomly selected from over 200 schools located in the Elazığ city center. The administrators of these schools were contacted and informed about the purpose and scope of the study. Out of the 100 administrators, 76 agreed to allow the surveys to be conducted in their schools. After creating a form that included scale items and demographic information, the research team visited these schools to administer the forms to teachers. In the first wave of data collection, usable data were obtained from 207 teachers, which were used in the EFA. Approximately three weeks after the first wave, the same schools were revisited, and data were collected from 283 teachers who had not participated in the initial wave. These data were used in the CFA. In the final stage, a form including items related to burnout, work engagement, and the scale's items, along with demographic variables, was administered approximately three weeks after the second wave of data collection at the same schools. During this stage, usable data were collected from 245 teachers, and these data were used to assess the nomological validity of the T-PEJDS. Demographic information of the participants is presented in Table 1.

Table 1. *Demographic information of participants.*

		Group 1 (N=207)		Group 2 (N=283)		Group 3 (N=245)	
Categories		***f***	***%***	***f***	***%***	***f***	***%***
Gender	Female	108	52.2	168	59.4	134	54.7
	Male	99	47.8	115	40.6	111	45.3
Marital Status	Married	155	74.9	203	71.7	172	70.2
	Single	52	25.1	80	28.3	73	29.8
Age	21-30	23	11.2	34	12	28	11.4
	31-40	68	32.8	86	30.4	72	29.4
	41-50	65	31.4	108	38.2	100	40.8
	51+	51	24.6	55	19.4	45	18.4

2.2. Scale

To identify items that can measure emotional job demands, researchers conducted a literature review and created a pool of 22 items. This pool was reviewed by three experts in the field of educational management. Based on their feedback, eight items were removed from the pool because they were deemed to measure the same aspects as other items in the pool. Additionally, based on the recommendations of these experts, one item was added to the pool to be considered within the scope of emotional job demands. The 15 items that emerged from the experts' evaluations were further reviewed by two measurement and assessment experts for scientific rigor. Three items that had multiple interpretations were revised. In the final stage, two experts in the Turkish language reviewed the items for appropriateness in terms of meaning and grammar. As a result of the language experts' recommendations, two items were revised due to containing unnecessary expressions, and five items were modified for clarity and comprehensibility. Considering the way the items were formulated, the scale was finalized using a five-point Likert scale (*Strongly Disagree* [1], *Disagree* [2], *Undecided* [3], *Agree* [4], and *Strongly Agree* [5]).

2.3. Data Analysis

For data analysis, a series of validity conditions were initially established. In this context, content validity was assessed by consulting experts in educational management, face validity by experts in measurement and assessment, and semantic validity by experts in the Turkish language. Necessary adjustments were made based on their evaluations. Subsequently, using the SPSS 22 package program, an EFA was conducted to perform the factorization process of the 15-item scale that emerged. For the adequacy of the sample size in the data set used in the EFA, the Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett's Sphericity Test analyses were checked to determine the suitability of the items in the scale for EFA. A KMO coefficient above .60 indicates that the sample is sufficient, and the significance of Bartlett's Sphericity Test (p<.05) suggests that the scale is suitable for factor analysis (Tabachnick & Fidell, 2007).

In EFA, Principal Axis Factoring was used to identify the underlying factor structure by analyzing the shared variance among items in the data set. This method is particularly suitable for uncovering latent constructs, as it focuses on the common variance shared by variables rather than total variance (Fabrigar *et al.*, 1999). The Direct Oblimin rotation technique was applied to allow for correlations between factors, facilitating a more accurate and interpretable representation of the measured structure (Çokluk *et al.*, 2010). For the assessment of items, item factor loadings (λ) and the common factor variance explained by the items (h^2) were utilized, and items with load values below .32 (Tabachnick & Fidell, 2007) and items with common factor variance values below .50 were removed from the scale (Hair *et al.*, 1998).

After the factorization process, CFA was conducted using Mplus 8.3 to confirm the structure, or model, revealed by EFA. To determine the estimator to be used for CFA analysis, the data set was checked for univariate and multivariate normality assumptions. Skewness and kurtosis values were examined for univariate normality, and since all values were within the range of ± 2.0, it can be stated that the assumption of univariate normality is met (George & Mallery, 2010). However, since Mardia's skewness and kurtosis values were found to be significant (p < .05), it was concluded that the data set did not meet the assumption of multivariate normality. Therefore, analyses were conducted using the Yuan-Bentler robust Maximum Likelihood (MLR) estimator, which can be used in cases where the data set is not normally distributed and can provide robust estimates, in Mplus (Şen, 2020). In model evaluation, the non-significant chi-square (χ^2) value was used as a criterion. However, due to the sensitivity of χ^2 to sample size, alternative fit indices were also considered. For this purpose, CFI (Comparative Fit Index), TLI (Tucker–Lewis Index), RMSEA (Root Mean Square Error of Approximation), and SRMR (Standardized Root Mean Square Residual) fit criteria were used based on the recommendations of Xu and Tracey (2017). CFI and TLI values above .95, RMSEA and SRMR values below .05

indicate excellent fit; CFI and TLI values between .90-.95, RMSEA values between .05-.08, and SRMR values between .05-1 indicate acceptable fit (Hu & Bentler, 1999).

The convergence validity and reliability tests were conducted using the values obtained from the CFA analysis. For the reliability coefficient, Cronbach's Alpha (α) and composite reliability (ω) coefficients were examined, and coefficients above .70 were considered reliable values (Hair *et al.*, 2014). For convergence validity, the Average Variance Extracted (AVE) and composite reliability (ω) values were calculated. The criterion for meeting the convergence validity condition is having a composite reliability coefficient above .70, an AVE value above .50, and the composite reliability coefficient being greater than the AVE value (ω>AVE) (Fornell & Larcker, 1981).

After testing structural validity, convergent validity, and reliability conditions through CFA, measurement invariance was examined to determine whether the scale measures the same structure in different groups (e.g., gender, marital status, age). The decision to test measurement invariance across gender, age, and marital status categories was guided by the literature and the theoretical foundations of emotional job demands in the teaching profession. Research consistently demonstrates that gender, age, and marital status are significant determinants of emotional job demands (Närin *et al.*, 2006; Näring & van Droffelaar, 2007; Näring *et al.*, 2012). These demographic factors are highly relevant to understanding differences in teachers' perceptions of emotional job demands, as supported by studies in occupational and educational psychology (Chang, 2009; Skaalvik & Skaalvik, 2015). Furthermore, focusing on these specific categories aligns with the objectives of this study, which aim to develop a reliable and valid instrument that accounts for the key demographic variables influencing teachers' emotional job demands.

Scales that do not achieve measurement invariance can lead to incorrect results and interpretations in studies involving group comparisons (Byrne, 2008). In measurement invariance, a baseline model (configural model) is first created without any invariance constraints to see if the same structure exists in different groups. After the baseline model, a series of models are tested, starting with the constrained factor loadings model (metric model), followed by the constrained factor loadings and intercepts model (scalar model), and finally the model with constrained factor loadings, intercepts, and unique factor variances (strict model) (Widaman *et al.*, 2010). In model evaluations, each model is compared to the previous model, and changes in chi-square ($\Delta\chi^2$) are analyzed. A non-significant $\Delta\chi^2$ test ($p > .05$) is considered evidence of measurement invariance for the tested model. Additionally, due to the sensitivity of the chi-square test to sample size, the threshold values for model comparisons were determined based on Chen's (2007) recommendations. Specifically, a change in the CFI of no more than .010 ($\Delta CFI \leq .01$) and a change in the RMSEA of no more than .015 ($\Delta RMSEA \leq .015$) were established as acceptable limits.

In the final stage, we conducted a latent variable path analysis to test the nomological validity of the scale. Nomological validity refers to the extent to which a measured construct fits within a network of theoretically related constructs (Kock *et al.*, 2024). In other words, a construct is considered valid and meaningful to the degree that it correlates with other variables it has been theoretically linked to. This validity is established by analyzing the relationships (e.g., positive or negative correlations) between the measured construct and different variables, demonstrating consistency with the construct's theoretical framework (Cronbach & Meehl, 1955). In the literature, exposure to emotional job demands leads to strong negative emotions and emotional effort in the workplace (Taris & Schreurs, 2009). These negative emotions and emotional efforts have the potential to deplete individuals' resources (Van den Heuvel *et al.*, 2010). Indeed, emotional demands are a significant source of strain in professions that involve intensive interpersonal relationships, such as teaching, and can adversely affect employee well-being (Sutton & Wheatley, 2003). In occupational health literature, emotional demands are

considered a cause of burnout (Maslach & Schaufeli, 2018) and are assumed to significantly undermine work engagement (Xanthopoulou *et al.*, 2013). Therefore, for the T-PEJDS scale to demonstrate nomological validity, it should positively predict burnout and negatively predict work engagement. For this purpose, the 10-item burnout scale developed by Pines (2005) and adapted into Turkish by Tümkaya *et al.* (2009), as well as the nine-item work engagement scale developed by Schaufeli *et al.* (2006), were used. The goal was to examine whether perceived emotional job demands among teachers predict burnout and work engagement.

2.4. Ethical

In the scope of the research, ethical approval was obtained from the Ethics Committee for Social and Human Sciences Research at Fırat University.

3. FINDINGS

In this section, initially, EFA was conducted for factorization of the scale. Subsequently, CFA was performed to confirm the structure revealed by EFA. Reliability and convergent validity analyses were conducted using standardized path coefficients obtained from CFA. Additionally, measurement invariance was tested using data used for CFA. Lastly, the nomological validity of the scale was examined.

3.1. Exploratory Factor Analysis (EFA)

The result of the EFA conducted for the factorization process yielded a KMO value of .91, and Bartlett's sphericity test (χ^2 = 1518.90; *df* = 105; $p < .001$) was statistically significant. These results indicate that the sample size is sufficient, and the data set is suitable for factorization. Item-level factor loadings and common variance values were examined, and items with values below the predetermined cut-off points were gradually removed from the analysis, starting with the lowest values. As a result of this process, eight items with both factor loadings and common variance values below the specified cut-off points (ƛ< .32 and $h^2 < .50$) were excluded from the analysis. A one-factor structure consisting of seven items was predicted as a result of the EFA. The EFA results are presented in Table 2.

Table 2. *Results of the EFA for the T-PEJDS.*

Items	ƛ	h^2	α if items are removed
item1	.90	.82	.94
item4	.85	.72	.94
item5	.79	.63	.95
item6	.84	.71	.94
item8	.85	.72	.94
item11	.86	.75	.94
item12	.87	.76	.93
Eigenvalue	5.09		
Total Variance Explained %	72.79		
Cronbach Alpha			.95

Note. ƛ= Item loading; h^2= Common variance; α= Cronbach Alpha

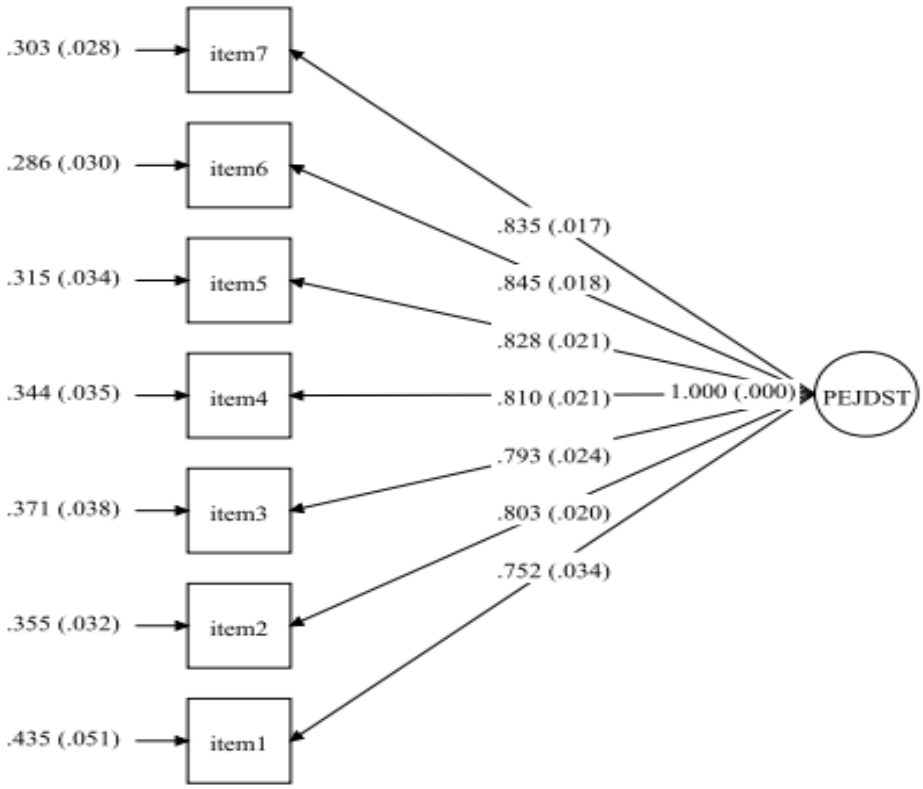
The results in Table 2 indicate that a scale structure consisting of a single factor with an eigenvalue of 5.09 has been identified. Furthermore, the single-factor structure explains 72.79% of the total variance. Item loadings (ƛ) ranged from .79 to .90, indicating strong structural relationships between these items and the single-factor structure. All items had common variance values (h^2) above .50, which can be considered evidence of item homogeneity (Çokluk

et al., 2010). The Cronbach's Alpha coefficient for the seven-item single-factor structure was estimated at .95, indicating a high level of internal consistency.

3.2. Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) was conducted to confirm the structure of the T-PEJDS, which consists of a single factor with seven items, as a result of the EFA. For this purpose, the data collected from 283 teachers were used. Tabachnick and Fidell (2007) recommend a sample size of at least 200 for conducting multivariate statistical analyses. Additionally, Kline (2005) suggests that the ratio of cases to the number of free parameters should be 10:1 for conducting CFA. Therefore, the sample size of the study is sufficient both according to Tabachnick and Fidell's (2007) recommendation ($N > 200$) and the criterion set by Kline (2005) (7x10 = 70 < 283). The measurement model obtained as a result of the CFA analysis of the T-PEJDS, using the MLR estimator, is shown in Figure 1.

Figure 1. *The result of the CFA Analysis of the T-PEJDS.*



X2= 125.653 [df= 14; p= .0586], RMSEA=.054 [%90 CI = .017- .087], CFI= .989, TLI= .984, and SRMR= .020

The findings indicate that the single-factor T-PEJDS model fits the data quite well (χ^2 = 125.653 [*df* = 14; *p* =.0586], RMSEA =.054 [90% CI =.017-.087], CFI =.989, TLI =.984, and SRMR = .020). It has been observed that the indicators forming the latent variable of T-PEJDS have standardized factor loadings ranging from .752 to .845. This suggests strong structural relationships between these indicators and the T-PEJDS latent variable. Additionally, using the standardized factor loadings obtained from the CFA analysis, AVE and composite reliability (ω) values were calculated. The AVE value was estimated at .656, and the composite reliability value was .930. Since the AVE value exceeds .50, the composite reliability value exceeds .70, and the composite reliability value is higher than the AVE value, it can be concluded that the convergent validity of the scale is established. Moreover, both Cronbach's Alpha and composite reliability coefficients were estimated at a high level (ω=.930, α=.927), indicating that the scale meets the reliability requirement.

3.3. Measurement Invariance

Measurement invariance models were tested using the data used in the CFA analysis to assess whether the scale measures the same structure across different groups (gender, marital status, and age). The results are presented in Table 3.

Table 3. *Measurement invariance fit indices (N=283).*

Models	χ^2	*df*	SRMR	TLI	CFI	RMSEA	$\Delta\chi^2$	Δdf	*p*	ΔCFI	ΔRMSEA
Female N=168); Male (115)											
Configural model	53.733	28	.026	.982	.972	.078					
Metric model	66.158	34	.059	.977	.972	.079	12.425	6	.053	.000	.001
Scalar model	74.375	40	.059	.975	.974	.078	8.217	6	.055	.002	.001
Strict model	81.927	47	.059	.978	.978	.072	7.552	7	.374	.004	.006
Married (N=203); Single (80)											
Configural model	40.144	28	.023	.989	.984	.055					
Metric model	47.587	34	.051	.988	.985	.053	7.443	6	.309	.001	.002
Scalar model	55.144	40	.060	.987	.986	.052	7.557	6	.285	.001	.001
Strict model	63.767	47	.059	.985	.987	.050	8.623	7	.281	.001	.002
Early adult (N=118); Mid. adult (N=165) *											
Configural model	40.786	28	.024	.989	.983	.057					
Metric model	44.113	34	.033	.991	.989	.046	3.377	6	.934	.006	.011
Scalar model	49.613	40	.035	.992	.991	.041	5.500	6	.533	.002	.005
Strict model	59.188	47	.049	.989	.991	.043	9.575	7	.214	.000	.002

*In this study, Levinson's (1986) life structure, the concept of the life cycle, was utilized. The author defines the age ranges as follows: 20-40 years as early adulthood; 40-60 years as middle adulthood; and 60 years and above as late adulthood. Participants who were 40 years old were categorized into the early adulthood group, while those who were 41 years and older were considered part of the middle adulthood group.

The findings in Table 3 indicate that the configural model has good fit indices for the gender variable (χ^2= 53.733 (*df* = 28), RMSEA = .078, CFI = .982, TLI =.972, and SRMR =.026), confirming the structure of the configural model. In a stepwise analysis, comparisons between the metric model and the configural model ($\Delta\chi^2$=12.425, Δdf= 6, p >.05), the scalar model and the metric model ($\Delta\chi^2$=8.217, Δdf= 6, p >.05), and the strict model and the scalar model ($\Delta\chi^2$=7.552, Δdf= 7, p >.05) were not statistically significant. Additionally, the changes in CFI (ΔCFI ≤ .010) and RMSEA (ΔRMSEA ≤.015) did not exceed the recommended thresholds at any step of the analysis, further supporting the invariance across gender. Therefore, it can be said that the configural, metric, scalar, and strict invariance of the T-PEJDS for the gender variable are fully supported.

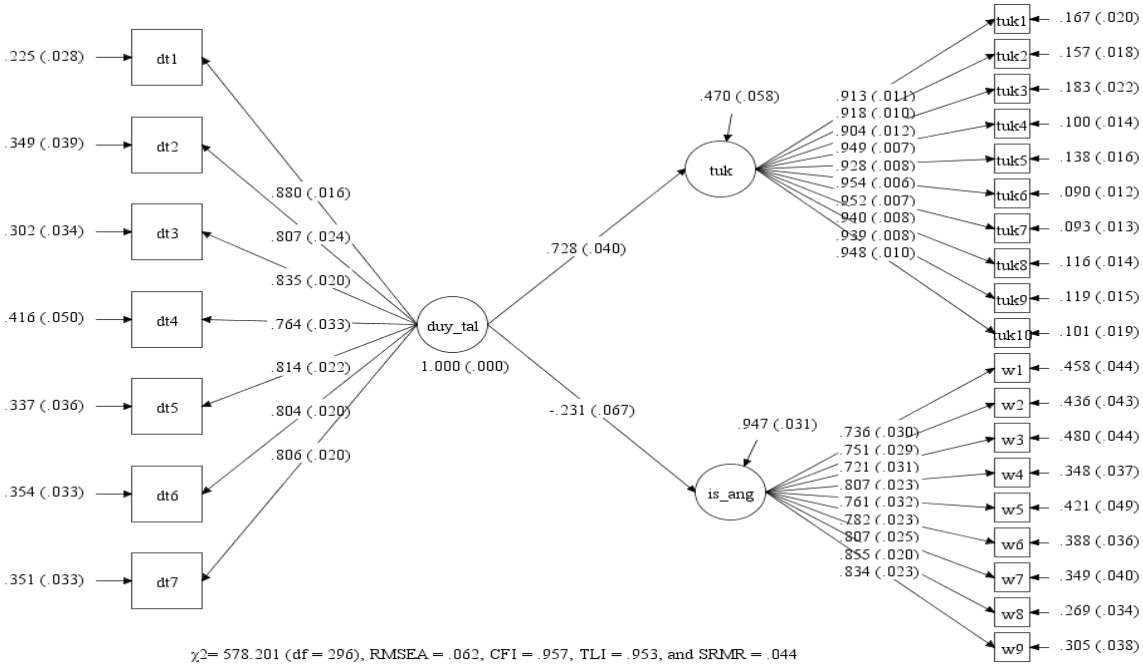
The results show that the configural model has good fit indices for the marital status variable (χ^2=40.144 (*df*=28), RMSEA =.057, CFI =.989, TLI =.984, and SRMR =.023), confirming the structure of the configural model. In a stepwise analysis, comparisons between the metric model and the configural model ($\Delta\chi^2$=7.443, Δdf= 6, p >.05), the scalar model and the metric model ($\Delta\chi^2$=7.557, Δdf= 6, p >.05), and the strict model and the scalar model ($\Delta\chi^2$=8.623, Δdf= 7, p >.05) were not statistically significant. Similarly, the changes in CFI (ΔCFI ≤ .010) and RMSEA (ΔRMSEA ≤ .015) were within acceptable limits, confirming measurement invariance across marital status. Therefore, it can be concluded that the configural, metric, scalar, and strict invariance of the T-PEJDS for the marital status variable are fully supported.

Finally, measurement invariance was tested for the age variable. The results show that the configural model has good fit indices for the age variable (χ^2=40.786 (*df* =28), RMSEA=.057, CFI=.989, TLI=.983, and SRMR=.024). Therefore, the first condition of measurement invariance was met for the age variable. In stepwise analyses for the age variable, comparisons between the metric model and the configural model ($\Delta\chi^2$=3.377, Δdf= 6, p >.05), the scalar model and the metric model ($\Delta\chi^2$=5.500, Δdf= 6, p >.05), and the strict model and the scalar model ($\Delta\chi 2$=9.575, Δdf= 7, p >.05) were not statistically significant. Moreover, changes in CFI (ΔCFI ≤ .010) and RMSEA (ΔRMSEA ≤ .015) remained below the recommended thresholds, providing additional evidence for the invariance across age. Hence, it can be concluded that the T-PEJDS, for the age variable, fully supports the configural model, as well as metric, scalar, and strict invariance.

3.4. Nomological Validity

In this stage, the nomological validity of the T-PEJDS scale was tested by analyzing its relationship with burnout and work engagement. To verify these associations, data collected from 245 teachers were tested using structural equation modeling, and the model fit indices along with standardized path coefficients are presented in Figure 2.

Figure 2. *SEM results.*



The results indicate that the model developed to test the nomological validity of the T-PEJDS scale demonstrates good fit indices (χ^2 =578.201 (*df*=296), RMSEA=.062, CFI=.957, TLI=.953, and SRMR = .044). Additionally, the standardized path coefficients reveal significant relationships between emotional demands and burnout (β =.728, p <.001) as well as work engagement (β=-.231, p<.001). These findings provide evidence that the scale possesses adequate nomological validity.

4. DISCUSSION

Although numerous studies have highlighted the negative impact of emotional job demands on employee well-being (e.g., Sutton & Wheatley, 2003; Taris & Schreurs, 2009; Van den Heuvel *et al.*, 2010), there is currently no measurement tool in the Turkish context specifically assessing teachers' emotional job demands. This study aimed to address this gap by developing a valid, reliable, and inter-group equivalent scale. A pool of 22 items was created through a literature review and refined through expert evaluations of content, face, and semantic validity, resulting in a 15-item draft scale. EFA with data from 207 teachers revealed a unidimensional seven-

item structure accounting for 72.78% of the total variance (see Appendix 1 for the seven-item structure). CFA with data from 283 teachers confirmed this structure, with good fit indices. The scale's convergent validity was supported by Average Variance Extracted (AVE) and Composite Reliability (ω) values, and reliability was confirmed with Cronbach's Alpha and composite reliability values exceeding .70. Measurement invariance analyses for gender, marital status, and age demonstrated configural, metric, scalar, and strict invariance, indicating that the scale reliably measures the same construct across these groups. Finally, nomological validity was established by testing the relationships between emotional job demands, burnout, and work engagement using structural equation modeling with data from 245 teachers. The significant relationships observed confirmed the scale's validity.

4.1. Implications

Considering the importance of simple measurements of fundamental structures in research, our seven-item scale represents a step towards facilitating further studies in educational contexts and provides a much-needed, reliable, and straightforward tool for assessing teachers' perceptions of emotional job demands. Emotional job demands are typically examined under the broader concept of emotional labor in the literature and, as such, have often been overlooked in terms of their antecedents and outcomes in educational research. This study conceptualized emotional job demands as a distinct construct based on the perspectives of previous researchers who theorized them as different from emotional labor. This approach could inspire studies aimed at uncovering the unique antecedents and outcomes of emotional job demands, thus broadening the scope of research in educational settings. Particularly in professions characterized by human interaction, such as teaching (Tuxford & Bradley, 2015), and with the growing emphasis on student-centered education in recent years, the scale could pave the way for a deeper analysis of emotional job demands (Peng, 2017). Our scale has the potential to clarify the nomological network of this construct, leading to a more comprehensive understanding of its role in educational contexts.

In developing the scale, we were guided by resource theories that assume emotionally charged and effortful interactions (i.e., emotional job demands) create challenging conditions for employees, leading to negative work outcomes (e.g., job dissatisfaction, burnout, turnover intentions). Therefore, our scale offers intriguing opportunities for studies that integrate emotional job demands to understand the mechanisms and moderating conditions underlying these negative work outcomes for teachers. For instance, researchers could use the T-PEJDS to explore under what conditions emotional job demands predict these negative work outcomes and through which mediators the effects of emotional job demands are transmitted to these outcomes. Within this framework, such studies could contribute to the development of effective interventions targeting these negative work outcomes. For example, school administrators could take targeted measures to mitigate the impact of emotional job demands on teachers with high perceptions of such demands by employing resources like organizational support that buffers these effects.

4.2. Limitations

This study has several limitations that present opportunities for future research. First, cross-sectional data were used to test nomological validity. Cross-sectional data capture the simultaneous relationships between variables, but these relationships may not hold over time. This lack of longitudinal validation is a significant limitation that restricts the scale's utility in assessing long-term outcomes or changes in the construct being measured. Future research could address this limitation by adopting a longitudinal design with multiple data collection points to capture time-lagged relationships between key variables. Second, the reliance on self-report measures in the study may have introduced response biases stemming from participants' desire to avoid embarrassment and project a positive image to others (Fisher, 1993). To enhance the validity of findings, future studies could incorporate multi-source and objective measures,

such as systematic observations. Third, the items developed for the scale were grounded in theoretical and empirical literature. However, teachers increasingly encounter new emotionally challenging demands. For instance, the widespread use of mass communication tools to coordinate school operations (despite one item related to this being removed during the EFA process) and the intrusion into personal life that this entails has become a notable issue in recent years. Consequently, the emergence of new items to measure emotional job demands is inevitable. This calls for regular reviews of the developed items to ensure the inclusion of the most current and relevant information. By addressing these limitations and pursuing these avenues, future research could provide a more comprehensive understanding of the impact of emotional job demands on teachers and schools.

5. CONCLUSION

This study aimed to develop a reliable and valid scale to measure teachers' perceptions of emotional job demands. The results show that the seven-item T-PEJDS meets the conditions of construct, convergent, and nomological validity, exhibits high reliability values, and also meets the criteria of measurement invariance. These results indicate that the T-PEJDS is a reliable and valid scale for measuring teachers' perceptions of emotional job demands. All items in the scale have been negatively coded. The scale was prepared in a five-point Likert format, with the highest possible score being 35 and the lowest score being 7. Higher scores indicate a higher level of perceived emotional job demands, while lower scores indicate a lower level of perceived emotional job demands. Therefore, it is expected that researchers using the scale pay attention to this aspect.

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Declaration of Conflicting Interests and Ethics

The authors declare no conflict of interest. This research study complies with research publishing ethics. The scientific and legal responsibility for manuscripts published in IJATE belongs to the authors. **Ethics Committee Number**: Fırat University, 05.10.2023-18829.

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Alper Uslukaya: Investigation, Methodology, Software, Formal analysis, Writing-original draft, Supervision, and Validation. **Yılmaz Arslan:** Investigation, Resources, Visualization, and Writing-original draft. **Füsun Yükrük:** Data collection, Investigation, Resources, Visualization, Software, and Formal analysis. **Oktay Ağ:** Data collection, Resources, Methodology, and Validation. **Mehmet Akif Evcimik:** Data collection, Resources, Methodology, and Validation.

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APPENDIX

Appendix 1. *Teacher perceived emotional job demands scale - Turkish version*

Maddeler	Öğretmenlerin Algıladıkları Duygusal İş Talepleri Ölçeği	Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum
1	Öğretmenlik, duygusal olarak yoğun çaba gerektiren bir meslektir.					
2	Okul yöneticilerinin baskılarına veya nezaketsiz davranışlarına rağmen onlara karşı iyi davranmak zorunda hissederim					
3	İsteksiz olmama rağmen, davranış sorunları olan öğrencilerle ilgilenmek durumunda kalırım.					
4	Öğrenciler için elimden geleni yapmama rağmen, velilerden şikayet alırım.					
5	Uyum sağlayamadığım öğretmen arkadaşlarımla çalışmak beni duygusal olarak zorlar.					
6	Milli Eğitim Bakanlığı'nın standartlarını karşılamaya çalışmak beni duygusal olarak yıpratır.					
7	İl veya İlçe Milli Eğitim Müdürlüğü'nün onaylamadığım talepleriyle uğraşmak zorunda kalırım.					