

## Original Article

### Utrecht Work Engagement Scale (nine items version): Translation and Validation in Greek

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#### Abstract

**Background:** Work engagement is a critical issue among workers since it refers to the effective connection between workers and organizations.

**Aim:** To translate and validate the “Utrecht Work Engagement Scale” (UWES) (nine items version) in Greek.

**Methods:** Study population included 114 nurses in Greece. We performed our study during April 2024. We employed the forward-backward method to translate and adapt the UWES in Greek language. We examined the construct validity of the UWES by performing confirmatory factor analysis. We examined the concurrent validity of the UWES using the “Quiet Quitting Scale” (QQS), the single item burnout measure, and the “Global Transformational Leadership” (GTL) scale. We examined the reliability of the UWES by calculating Cronbach’s alpha.

**Results:** The UWES showed very good psychometric properties. Our confirmatory factor analysis confirmed the three-factor structure of the UWES; vigor, dedication and absorption. Concurrent validity of the Greek version of the UWES was very good. We found statistically significant correlations between the UWES and QQS ( $r = -0.605$ ,  $p < 0.001$ ), and GTL ( $r = 0.494$ ,  $p < 0.001$ ). We found that the “Utrecht Work Engagement Scale” had very good reliability since intraclass correlation coefficients for the nine items were higher than 0.813 ( $p < 0.001$  in all cases). Moreover, Cronbach’s coefficient alpha for the UWES was 0.924.

**Conclusions:** The Greek version of the “Utrecht Work Engagement Scale” (nine items version) is a reliable and valid tool to measure work engagement among workers.

**Keywords:** Utrecht Work Engagement Scale; engagement; work; nurses; Quiet Quitting Scale.

## Introduction

The workforce is the greatest asset in any organization. The organizational behavior of the workforce can have a significant impact on its performance, as well as the overall effectiveness and efficiency of the organization. Work engagement is a favorable organizational behavior that stands in direct contrast to burnout, whereas work engagement is characterized by energy, involvement and efficacy, the three dimensions of burnout on the opposite side include exhaustion, cynicism and reduced achievement (Schaufeli, 2012).

Engagement can be defined as “*a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption*”(Schaufeli and Bakker, 2004). Engagement is a state of mind that is consistently present and widespread, without being directed towards any one item, event, individual, or behavior.

Vigor, one of the three characteristics of engagement, is defined by elevated levels of energy and mental resilience in the workplace. Dedication encompasses an employee's perception of significance, enthusiasm, inspiration, pride and challenge.

The third aspect of engagement, absorption, entails complete concentration on one's work and experiencing joy, resulting in a sense of time passing swiftly and experiencing challenges in disengaging from work (Schaufeli and Bakker, 2004).

The crucial factor in fostering work engagement is ensuring the availability of job resources, such as prospects for personal development, leadership, support from colleagues and superiors, and autonomy (Bakker *et al.*, 2011; Schaufeli, 2012). Studies conducted across several industries has consistently demonstrated the beneficial effects of transformational leadership on the enhancement of employee engagement (Arifin *et al.*, 2014; Hawkes *et al.*, 2017; Hayati *et al.*, 2014; Lai *et al.*, 2020; Tims *et al.*, 2011).

Moreover, social support, autonomy, and resilience are influential characteristics that contribute to the enhancement of work engagement in various work settings (Cao and

Chen, 2019; Minghui *et al.*, 2018; Orgambídez-Ramos and de Almeida, 2017; Taipale *et al.*, 2011). Work engagement has numerous advantages, benefiting both the employee and the organization where they work. Specifically, work engagement enhances employee well-being, job and life satisfaction, diminishes burnout, and enhances productivity (Cesário and Chambel, 2017; Hakanen *et al.*, 2018; Radic *et al.*, 2020; Shimazu *et al.*, 2012, 2015).

The Utrecht Work Engagement Scale (UWES) is a self-reported tool used to measure work engagement (Schaufeli, Martínez, *et al.*, 2002; Schaufeli, Salanova, *et al.*, 2002). It encompasses the three characteristics of work engagement mentioned above. The initial scale consisted of 17 items in its long-form version, while a further development resulted in a shorter version with 9 items (Schaufeli *et al.*, 2006). In this context, we examined the psychometric properties of the “Utrecht Work Engagement Scale” (UWES) 9-items short-form in Greek language.

## Methods

**Study design:** Study population included 114 nurses in Greece. We performed our study during May 2024. We employed the forward-backward method to translate and adapt the UWES in Greek language (Galanis, 2019). In particular, two scholars translated the English version of the UWES in Greek, and then two other scholars back translated the Greek version in English. Another scholar overviewed the translation procedure solving any discrepancies. We examined the reliability of the UWES by calculating Cronbach's alpha. Cronbach's alpha higher than 0.6 indicates acceptable internal reliability. Also, we performed a test-retest study to examine the reliability of the UWES. We examined the construct validity of the UWES by performing confirmatory factor analysis (Galanis, 2013). We examined the concurrent validity of the UWES using the “Quiet Quitting Scale” (QQS) (Galanis, *et al.*, 2023), the single item burnout measure (Hansen and Pit, 2016), and the “Global Transformational Leadership” (GTL) scale (Carless *et al.*, 2000).

In particular, we used the Greek versions of QQS (Galanis, *et al.*, 2023; Galanis, *et al.*, 2024), single item burnout measure (Galanis, *et al.*, 2024) and GTL (Moisoglou *et al.*, 2024).

**Ethical considerations:** We applied the guidelines of the Declaration of Helsinki to perform this study (Association, 2013). Additionally, the study protocol was approved by the Ethics Committee of Faculty of Nursing, National and Kapodistrian University of Athens (reference number; 494, April 01, 2024).

**Statistical analysis:** We performed confirmatory factor analysis (CFA) to examine the construct validity of the UWES. In particular, we calculated chi-square/degree of freedom ( $\chi^2/df$ ); root mean square error of approximation (RMSEA); goodness of fit index (GFI); adjusted goodness of fit index (AGFI); Tucker-Lewis index (TLI); incremental fit index (IFI); normed fit index (NFI); comparative fit index (CFI) (Baumgartner and Homburg, 1996; Hu and Bentler, 1998). Acceptable value for  $\chi^2/df$  is  $<5$ , for RMSEA is  $<0.10$ , and for all other measures in the CFA  $>0.90$ . We used the AMOS version 21 (Amos Development Corporation, 2018) to conduct the CFA. We calculated Pearson's correlation coefficient between UWES, QQS, GTL and the single item burnout measure to examine the concurrent validity of the UWES. Also, we calculated Pearson's correlation coefficient between the two UWES measurements in test-retest study. P-values less than 0.05 were considered as statistically significant. We used the IBM SPSS 21.0 (IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp.) for the analysis.

## Results

Study population included 114 nurses. Among them, 89.5% (n=102) were females and 10.5% (n=12) were males. Mean age of our sample was 33.2 years (standard deviation; 9.7).

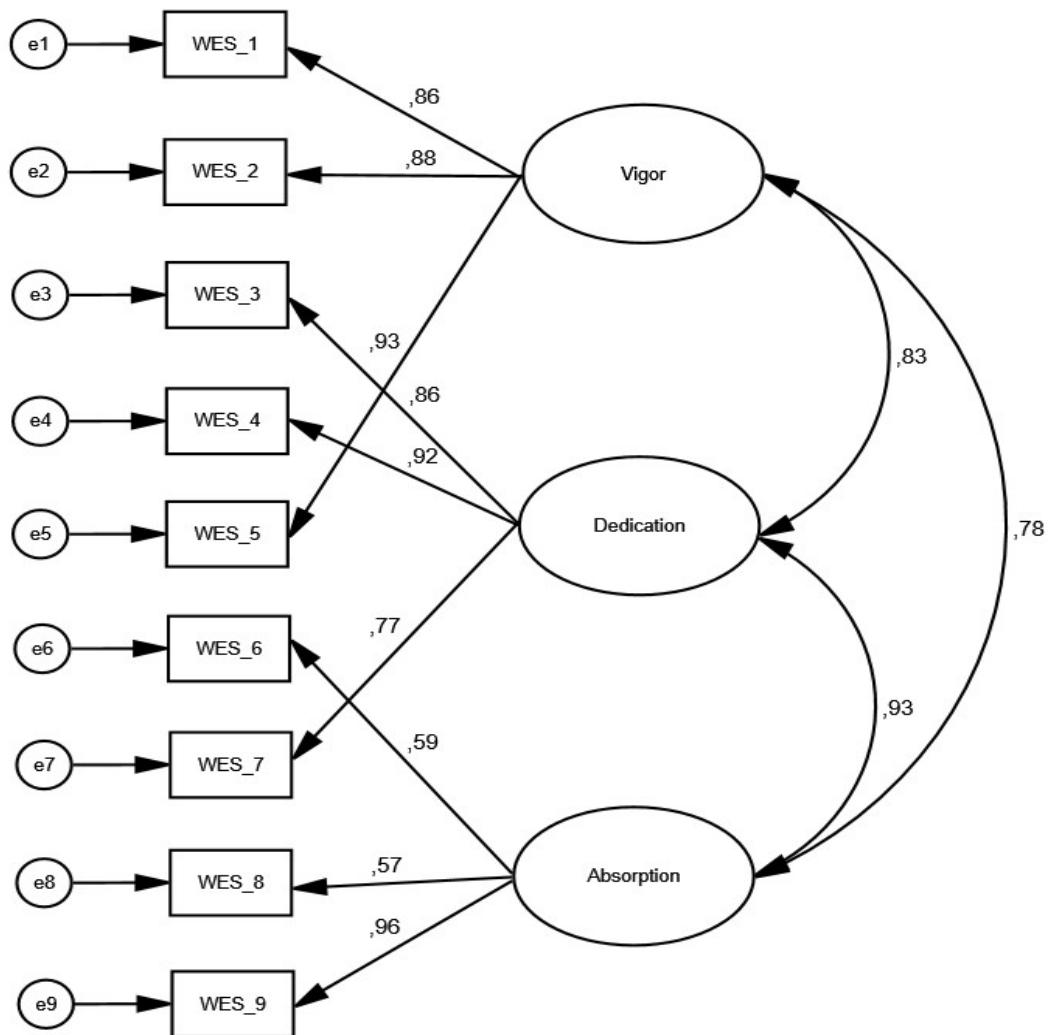
We found that the “Utrecht Work Engagement Scale” (nine items version) had very good reliability since intraclass correlation coefficients for the nine items were higher than 0.813 ( $p<0.001$  in all cases). Moreover, Cronbach's coefficient alpha for the UWES was 0.924.

We performed confirmatory factor analysis to examine the structure of the UWES and we found that the Greek version of the UWES had a three-factor structure as the original version (Figure 1). Table 1 presents model fit indices for the confirmatory factor analysis. All indices indicated an acceptable three-factor model. In particular,  $\chi^2/df$  was 19.311, RMSEA was 0.050, GFI was 0.966, AGFI was 0.901, TLI was 0.988, IFI was 0.995, NFI was 0.978, and CFI was 0.995. Correlation between vigor and dedication was 0.83, between vigor and absorption was 0.78, and between dedication and absorption was 0.93 (Figure 1). Moreover, standardized regression weights for the nine items ranged from 0.57 to 0.93.

Concurrent validity of the Greek version of the UWES was very good since we found statistically significant correlations between UWES and QQS ( $r = -0.605$ ,  $p<0.001$ ), and GTL ( $r = 0.494$ ,  $p<0.001$ ). Moreover, we found a negative relationship between UWES and single item burnout measure, but this relationship was not statistically significant ( $r = -0.100$ ,  $p=0.290$ ). Concurrent validity of the Greek version of the UWES is shown in Table 2.

**Table 1. Confirmatory factor analysis for the Greek version of the “Utrecht Work Engagement Scale”.**

Model	$\chi^2$	df	$\chi^2/df$	RMSEA	GFI	AGFI	TLI	IFI	NFI	CFI
Nine items	19.311	15	1.287	0.050	0.966	0.901	0.988	0.995	0.978	0.995



**Figure 1. Confirmatory factor analysis for the Greek version of the “Utrecht Work Engagement Scale”.**

**Table 2. Concurrent validity of the Greek version of the “Utrecht Work Engagement Scale”.**

	Quiet Quitting Scale		Global Transformational Leadership Scale		Single item burnout measure	
	Pearson's correlation coefficient	P-value	Pearson's correlation coefficient	P-value	Pearson's correlation coefficient	P-value
<b>Utrecht Work Engagement Scale</b>	-0.605	<0.001	0.494	<0.001	-0.100	0.290

## Discussion

The current study has demonstrated that the Greek adaptation of the "Utrecht Work Engagement Scale" (nine items version) exhibits outstanding psychometric characteristics, confirming its validity and reliability as a tool for assessing work engagement in employees.

Organizations globally, irrespective of their industry, face significant pressure to enhance their efficacy and efficiency, enhance quality, boost client satisfaction, minimize errors, and reduce resource wastage. Organizations must have an engaged staff in order to effectively address these challenges (Hanaysha, 2016; Janes *et al.*, 2021; Schneider *et al.*, 2018; Wee and Lai, 2022).

Nevertheless, a substantial body of research indicates that employees frequently encounter elevated levels of job burnout and dissatisfaction, a high incidence of quiet quitting and an expressed turnover intention from their current positions (Galanis, *et al.*, 2024; Galanis, *et al.*, 2023, 2024; Harter, 2022). A recent survey conducted by Gallup, a management consultancy, examined the workforce of organizations worldwide. The study revealed that 62% of employees are not actively engaged in their work. Additionally, the study estimated that low engagement has resulted in a staggering loss of 8.9 trillion in global GDP (Gallup, 2023).

The utilization of a reliable and valid tool for measuring workforce engagement, such as the UWES, enables the management of

organizations worldwide to measure the level of engagement of their workforce and to highlight the factors associated with staff engagement. The UWES has been translated and validated in numerous countries, demonstrating its robust psychometric properties across various work settings (Balducci *et al.*, 2010; Fong and Siu-Man Ng, 2012; Gwamanda *et al.*, 2024; Nerstad *et al.*, 2010).

Our study had several limitations. We used a convenience sample of nurses to validate the UWES in Greek. Therefore, we cannot generalize our results. There is a need to validate the tool among other workers in Greece. Moreover, we employed self-reported questionnaires, such as the QQS and the single item burnout measure to investigate the concurrent validity of the UWES. Also, scholars can investigate several other types of validity of the UWES.

In conclusion, the Greek version of the "Utrecht Work Engagement Scale" showed exceptional psychometric properties and, thus, it is a valid and reliable tool to measure work engagement among workers.

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