BMC Psychology

RESEARCH

Open Access

Validity and reliability study of the Turkish version of the quiet quitting scale in healthcare workers

Ahmet Yıldız[1], Erhan Ekingen[1], İbrahim Gün[1] and Murat Yıldırım[2,3*]

Abstract

This study aimed to assess the reliability and validity of the Turkish version of the Quiet Quitting Scale (QQS) among healthcare workers. After completing the language validation, the psychometric properties of the QQS were tested on a sample of 542 healthcare workers from two hospitals in Turkey. Convergent validity was examined using the Burnout Measure-Short Version (BMS). The reliability of the scale was evaluated through internal consistency, test-retest reliability, and split-half reliability. Factor analysis confirmed the one-dimensional structure of the QQS with its seven items. The Cronbach's alpha coefficient was 0.81, the intraclass correlation coefficient for the total score was 0.91, and the Spearman-Brown coefficient for split-half reliability was 0.80. Additionally, the test-retest reliability was found to be high. A correlation coefficient of 0.79 between the QQS and BMS confirmed the scale's convergent validity. These results suggest that the Turkish version of the QQS is a valid and reliable tool for measuring quiet quitting behavior in healthcare workers. Further research with different sample groups is recommended.

Keywords Quiet quitting scale, Validity, Reliability, Turkish version, Healthcare workers, Nursing

Introduction

In today's dynamic and competitive business world, it is known that organizations strive to build a productive and stable workforce. Retaining employees is crucial for success and long-term corporate sustainability [28]. However, this is not always achievable. Research indicates that employees may exhibit "quiet quitting" behaviours even if they do not resign from their jobs. According to a study conducted by Gallup on more than 15,000 full-time and part-time employees in the United States (US), since the second half of 2021, there has been a continuous increase in the proportion of disengaged and psychologically detached employees from the workplace [24]. Another study revealed that surprisingly, up to 50% of the workforce could be classified as quiet quitters [41].

Quiet quitting is simply expressed as "working just enough to avoid being fired" [7]. The concept of quiet quitting refers to an occurrence in the workplace where individuals do not quit their jobs but rather perform only the tasks expected from their position without exceeding those expectations [23]. Quiet quitters often limit their efforts at work to maintain a personal work/life balance or to preserve their health and well-being in a high-pressure work environment [33]. The concept of quiet quitting denotes employees' limited commitment to fulfilling assigned tasks and leaving any tasks not specified in their job descriptions to others. It also signifies a lack of pursuit of a vision in work activities. Consequently, quiet quitters

*Correspondence:
Murat Yıldırım
muratyildirim@agri.edu.tr; muratyildirimphd@gmail.com
[1] Faculty of Health Sciences, Department of Health Management, Batman University, Batman, Turkey
[2] Department of Psychology, Faculty of Science and Letters, Agri Ibrahim Cecen University, Fırat Mahallesi Yeni Üniversite Caddesi No: 2 AE/1 Merkez, Ağrı – Türkiye 04100, Turkey
[3] Department of Social and Educational Sciences, Lebanese American University, Beirut, Lebanon

are disconnected from their work and have no intention of going beyond their assigned duties [14]. Quiet quitting does not imply that an individual's job requirements are not met. Rather, it suggests that the person is doing the minimum required to sustain their job [25]. Employees who show the minimum effort required for their jobs due to lack of organizational support, salary concerns, job instability, and/or other priorities are referred to as quiet quitters [4].

Quiet quitting is a new term conceptualized under various names in organizational behaviour. Job turnover, withdrawal behaviour, and neglecting work are understood as concepts very similar to quiet quitting [6]. However, a clear and uniform definition of quiet quitting, its antecedents, and its outcomes have not yet been determined [41]. Quiet quitting is particularly prevalent among younger generations. Senior management teams need to reassess their assumptions about the values of future generations of workers and develop programs, policies, and practices that better reflect these groups with a more accurate understanding [33].

Research on quiet quitting increased towards the end of 2022. Awareness of this phenomenon heightened with the viral spread of a TikTok video discussing quiet quitting in the summer of 2022. The video garnered significant media attention, amassing 3.5 million views and nearly half a million likes within a few weeks [41]. Many online platforms and journals, such as Harvard Business Review, Forbes, World Economic Forum, Wall Street Journal, and the New York Times, have published various articles on the concept of quiet quitting [6]. Alongside these studies, the literature on quiet quitting is rapidly expanding.

Since the phenomenon of quiet quitting is relatively new and gaining visibility, scholars have not extensively researched it in depth, unlike other job-related variables such as resignation, turnover intention, job satisfaction, burnout, and workload [10, 11, 16]. When examining the studies conducted on this topic in the literature, employee dissatisfaction and burnout are cited as reasons for quiet quitting [4, 32, 45]. Furthermore, a study conducted by Xueyun et al. [45] determined that job conditions, job security, perceived career development, perceived organisational support, and emotional organisational commitment are associated with quiet quitting. Quiet quitting is characterised by psychological distancing from employers through decreased job output, low job commitment, and low job satisfaction [4]. Wage inequalities, workload and role conflicts also frequently arise in the business world. This leads to burnout and turnover intentions by changing and disrupting employees' work attitudes, habits and behaviours [7]. To prevent quiet quitting behaviours, the meaningfulness of employees' work should be clearly articulated. According to an article published in the Harvard Business Review in 2018, nine out of ten respondents in a survey are willing to accept a lower salary for a more meaningful job [33]. Another variable that affects quiet quitting is psychological empowerment. A study by Lu et al. [32] concluded that psychological empowerment predicts quiet quitting.

Healthcare workers have been one of the most affected occupational groups by a significant wave of resignations since the beginning of the pandemic in 2021. The situation has reached such a critical level that in a study conducted in the United States, up to 47% of healthcare workers plan to resign from their positions by 2025, with the percentage rising to 90% for nurses [17, 18]. While the remote working model has been adopted in most sectors, it has not been applied to health professionals. The rapid increase in the number of cases, shortages of healthcare workers and equipment, and the rapid increase in demand for health services have led to an inadequate response to the crisis. As a result, healthcare workers have faced numerous challenges since the onset of the pandemic crisis [7].

Due to significant infection risk, adverse working conditions, economic downturn, workload, wage inequalities, toxic organizational culture, physical and verbal violence, anxiety, depression, burnout, and disruption of work-life balance, it has become inevitable for healthcare workers to exhibit quiet quitting behaviour [7]. Health professionals who are at the frontline of patient care may feel de-energized and less psychologically committed to work that goes beyond the demands of the written job description [48]. Psychological and emotional fatigue is known to lead to significant negative consequences. In health professionals, this fatigue leads to detrimental effects on both physical and psychological well-being and manifests itself in reduced quality of performance and decreased productivity [32]. There are many reasons for health professionals to choose quiet quitting rather than resigning or retiring. These include the rising cost of living and shrinking retirement portfolios or insufficient retirement savings. Financial incentives are not always the primary motivation influencing work passion; however, current trends suggest that employers expect too much from their employees [48]. In general, due to low wages, demanding work shifts and long working hours, COVID-19 has acted as a catalyst for change rather than a source of change [14].

Given the current circumstances, organizations need to address the issue of quiet quitting and perceive the workplace as a place that requires changes aimed at promoting citizenship through mutual respect, genuine participation opportunities, and reasonable, negotiated workloads and workplace policies, while also

enhancing employees' sense of value and belonging [48]. In this respect, first of all, it is necessary to measure the quiet quitting behaviours of employees and measurement tools are needed to measure quiet quitting behaviours. As far as we have determined, only 2 measurement tools developed to measure quiet quitting behaviour were found in the Turkish literature [27, 47]. Only one of them was conducted on healthcare workers [27]. As an alternative to the limited number of measurement tools, it is thought that the introduction of a validated and reliable measurement tool into the Turkish literature will make a significant contribution to the literature. This study aims to conduct a Turkish validity and reliability study of the Quiet Quitting Scale (QQS) in healthcare workers.

Method

Participants and sample size

The inclusion criteria for the study were: (1) being a healthcare professional, (2) having worked at the current institution for at least one year, and (3) a willingness to participate. A total of 650 questionnaires were distributed, with 542 healthcare professionals voluntarily completing the survey, resulting in a response rate of 83.38%. The participants comprised 325 nurses (60%), 119 doctors (21.9%), and 98 health technicians (18.1%). The mean age of the participants was 32.84 ± 5.57 years. More than half (55.9%) of the participants were female. Those with undergraduate degrees (39.5%) were predominant. Nearly half (46.3%) of the participants worked both day and night shifts. The average duration of seniority in the profession is approximately 8 years, and the average duration of employment in the hospital where they are currently working is approximately 5.5 years. Approximately half of the participants (45.6%) work in intensive care, operating room and emergency department (Table 1).

In determining the appropriate sample size to be used in research based on the structural equation model (SEM). It is expected to reach a sample size of at least 10 times the number of parameters to be estimated [22]. In the research model, there are 14 parameters to be estimated in total ([error variance to be estimated: 7] + [factor loading to be estimated: 6] + [latent variable to be estimated: 1] = 14). Therefore, according to the number of parameters, at least 140 (14 × 10 = 140) participants should be reached. On the other hand, it is stated that a sample of over 300 is generally sufficient [44]. In this study, 542 health professionals participated. Accordingly, it can be said that the number of participants was sufficient.

Table 1 Occupational and Demographic Characteristics of Participants (*N*=542)

Variable		n	%
Profession	Nurse	325	60.0
	Doctor	119	21.9
	Technician[a]	98	18.1
Age (Mean±SD – 32.84±5.57)	≤29	163	30.1
	30-35	217	40.0
	36-41	104	19.2
	≥42	58	10.7
Gender	Female	303	55.9
	Male	239	44.1
Education Level	High school	54	10.0
	Associate degree	139	25.6
	Bachelor's degree	214	39.5
	Postgraduate	135	24.9
Type of shift	Day shift	76	14.0
	Night shift	215	39.7
	Mixed	251	46.3
Professional experience (years) (Mean±SD – 7.89±4.21)	≤5	205	37.8
	6-10	169	31.2
	11-15	136	25.1
	≥16	32	5.9
Duration of Employment in the Hospital (years) (Mean±SD – 5.33±2.53)	≤4	225	41.5
	5-8	253	46.7
	≥9	64	11.8
Unit	Internal units	164	30.3
	Surgical units	131	24.2
	Intensive care unit	105	19.4
	Operating Room	45	8.3
	Emergency service	97	17.9

[a] Laboratory Technician (42), Emergency Medical Technician (34) Radiology Technician (22)

Measures

Quiet quitting scale

The QQS developed by Anand et al. [4] consists of 7 items and one dimension. The scale is designed as a 5-point Likert scale (1 = never/completely disagree; 5 = very often/completely agree). There are no reverse questions in the scale. Higher scores indicate higher levels of quiet quitting behaviour [4].

Burnout measure-short version

Previous research suggests that there is a relationship between quiet quitting behaviour and burnout [17, 18, 43]. Therefore, to test the convergent validity of the QQS, the relationship between quiet quitting behaviour and burnout levels of the participants was examined. Burnout Measure-Short Version (BMS) was used to assess the burnout level of the participants. The first version of the BMS was developed by Malach-Pines and Aronson [35]

as 21 items. A short form of the scale was developed by Malach-Pines [34]. The BMS consists of 10 items and one dimension. The items in the BMS are scored on a 7-point Likert scale (1 = never; 7 = always). The Turkish validity and reliability study of the short form of the BMS was conducted by Çapri [9]. In this study, the Cronbach alpha value of the BMS was found to be 0.78.

Translation and adaptation of the quiet quitting scale

The original language of the QQS is English. Following standard guidelines for cross-cultural adaptation [46, 42], the original QQS was translated into Turkish using the forward-backwards translation method. The Turkish translation of the scale (see Appendix) was conducted by two academics who completed their doctoral studies in the United Kingdom and are proficient in both English and Turkish. In Item 2 ("I am doing the bare minimum work to avoid being fired"), the phrase "being fired" was adapted as "changing of work location" in the Turkish translation to align with Turkish cultural norms. In Item 7 ("I feel there is a lack of feeling regarding my employer's caring for me."), the phrase " my employer's " was adapted as "my manager" in the Turkish translation to align with Turkish cultural norms.

The two translations were evaluated by the authors of this study, and consensus was reached on a single translation. Subsequently, the Turkish translation was back-translated into English by another academic proficient in both languages. To assess whether the English translation obtained was compatible with the original version of the scale, the lead author of the scale was contacted and asked to compare the translation with the original scale. After it was evaluated that the translation was compatible with the original scale, the scale was prepared for use.

Data collection procedure

The data collection phase of this cross-sectional study was carried out in two stages. In the first stage, a pilot study was conducted to evaluate the comprehensibility of the items in the scale by the participants. The pilot application was conducted on 50 participants. At this stage, the researchers were present with the participants and asked them to indicate if any items were unclear. It was determined that no changes were needed to the items at this stage. The second phase was conducted one month after the first phase between January 1, 2024 and January 31, 2024, on healthcare workers working in 2 public hospitals (1 training and research hospital and 1 state hospital) in a province located in the south-east of Turkey. The duration of filling out the survey was between 6 and 8 min. The convenience sampling method was used in the study and all healthcare workers who agreed to participate in the study were included in the study.

Data analysis

The data obtained from the study were analysed using SPSS-21 and AMOS software programs. Participants' occupational and demographic characteristics and their responses to the scale items were analysed with mean, standard deviation, frequency and percentage values. Data were randomly split into two subsamples of equal size to test the structure of the QQS. Exploratory factor analysis (EFA) was conducted on the first subsample ($n = 271$) to identify its underlying factor structure. The EFA is a method used to identify and, when appropriate, name the variables (factors/dimensions/components) that are assumed to elucidate the underlying causes of related data structures [3, 8]. By exploring the data, we aimed to determine the degree of alignment among the items and to uncover any potential latent factors that may differ from the original tool. Confirmatory factor analysis (CFA) was then performed on the second subsample ($n = 271$) to evaluate whether this factor structure could be confirmed. Reliability analyses were conducted and reported for both subsamples and the overall sample. For the internal consistency of the scale, Cronbach's Alpha value and Spearman-Brown coefficient for split-half reliability were analyzed. Intraclass correlation coefficient (ICC) was used for test-retest reliability. Pearson correlation analysis was used to assess convergent validity and inter-item correlation. For normality assumption, kurtosis and skewness values were examined. The kurtosis values ranged from −1.00 to -0.17 in the first subsample, from −1.05 to -0.49 in the second subsample, and from −0.32 to +0.13 in the overall sample. The skewness values ranged from −0.20 to +0.17 in the first subsample, from −0.41 to +0.07 in the second subsample, and from −1.02 to -0.48 in the overall sample, suggesting the suitability of the data for normality assumption [22]. Additionally, the multivariate normality of the data was assessed in the CFA using a critical value for multivariate kurtosis of 10.27. The critical value for multivariate kurtosis exceeding 10 is considered a problem in terms of the multivariate normality assumption [30]. In such cases, due to the failure to meet the normality assumption, the "Asymptotically Distribution-Free" estimator, which is independent of the distribution, was selected.

Results

Construct validity

Exploratory factor analysis

Principal Component Analysis with varimax rotation was conducted for the EFA. The suitability of the data for EFA was evaluated with the Kaiser-Meyer-Olkin

(KMO) coefficient and Barlet's sphericity test. A KMO coefficient higher than 0.60 and a significant Barlet's Sphericity test result indicate that the data set is suitable for factor analysis and the factorability of the data structure [8, 26]. In this study, the KMO coefficient was 0.82 and the result of Barlet's Sphericity test was significant ($p < 0.01$). As a result of the EFA analysis, it was seen that the 7 items included in the analysis were grouped under a single factor with an eigenvalue greater than 1 (3.04). The scree plot revealed one factor with an eigenvalue greater than 1. The graph showed a steep decline from the first to the second point, after which the slope levelled off, becoming more horizontal. The one-dimensional structure accounted for 43.46% of the total variance, which is considered sufficient in the social sciences, where a variance explanation above 40% is acceptable [3]. The commonalities of the items ranged from 0.32 to 0.63, and the factor loadings varied between 0.59 and 0.73, indicating strong factor loadings within a single dimension [8] (Table 2). These results suggest that all items should be retained, confirming the scale's single-factor structure.

Table 2 shows the mean scores of quiet quitting of the healthcare workers who participated in the study. The mean score of quiet quitting of the participants was 2.49 ± 0.64. The item with the highest mean was "I feel there is a lack of opportunities to learn and grow in my organization" (2.59 ± 0.87) and the item with the lowest mean was "I feel I have a lack of interest in attending meetings" (2.32 ± 1.00). Similarly, in subsamples 1 and 2, the items with the highest and lowest mean scores were the same.

Confirmatory factor analysis

After conducting the EFA on subsample 1, the one-dimensional structure of the scale was tested using CFA on subsample 2. The standardized regression coefficients (β) of the scale items were examined. It was observed that the β values of the scale items ranged from 0.55 to 0.77, all exceeding 0.50. Additionally, all item regression coefficients were found to be significant ($p < 0.01$). In the analysis, the model fit indices were as follows: χ2 / df = 1.725; Root Mean Square Error of Approximation (RMSEA) = 0.052; Comparative Fit Index (CFI) = 0.981; Incremental Fit Index (IFI) = 0.981; Goodness of Fit Index (GFI) = 0.975; Root Mean Square Residual (RMR) = 0.033; and Normed Fit Index (NFI) = 0.956 (Fig. 1). The χ2/df, CFI, IFI, GFI, RMR, and NFI values indicate a good model fit, while the RMSEA value reflects an acceptable fit [22, 37]. These findings confirm the 7-item and single-factor structure of the scale.

Convergent validity

To evaluate the convergent validity of the QQS, Pearson correlation coefficients between the QQS and BMS scores were examined. A statistically significant positive correlation was found between the two scale scores ($r = 0.79$; $p < 0.01$). The correlation coefficient (0.79) indicated convergent validity.

Internal consistency

The internal consistency of the QQS was evaluated based on Cronbach's alpha coefficient and item-total correlations. Cronbach's alpha coefficient is one of the most commonly used methods to assess scale reliability [12]. In this study, the Cronbach's alpha coefficient of the QQS was found to be 0.81 in the total sample. In subsample 1 and subsample 2, Cronbach's alpha coefficients were 0.78 and 0.82, respectively. A Cronbach's alpha coefficient between 0.70 and 0.79 indicates high reliability, while a value above 0.80 indicates excellent reliability [3, 39]. Item-total correlation explains the relationship between the scores obtained from the scale items and the scale total score. A high and positive item-total correlation indicates that the items measure similar perceptions and the internal consistency of the scale is high [8]. In this study, item-total correlations ranged between 0.47 and 0.65 in the total sample and were statistically significant ($p < 0.01$). In subsample 1, item-total correlations range between 0.42 and 0.65; in subsample 2, they range between 0.51, and 0.67 and were statistically significant ($p < 0.01$). Inter-item correlation coefficients ranged between 0.26 and 0.54 and were statistically significant ($p < 0.01$). In subsample 1, Inter-item correlation coefficients range between 0.16 and 0.57; in subsample 2, they range between 0.32, and 0.60 and were statistically significant ($p < 0.01$) (Table 3). According to these findings, it can be said that the internal consistency of the scale is high [3, 8, 29].

Split-half reliability

Split-half test reliability is an indicator of internal consistency and is used to compare the consistency between two test scores [8]. To assess split-half reliability, the correlation between the first 4 items in the QQS scale and the scores of the next 3 items was examined [29]. Spearman-Brown coefficient for split-half reliability was used for this [3]. In this study, the Spearman-Brown coefficient for split-half reliability was found to be 0.80 in the total sample, 0.76 in subsample 1, and 0.84 in subsample 2, and it was determined that the split-half reliability was high.

Table 2 Descriptive statistics and factor loading of the Turkish version of the quiet quitting scale

Items	Subsample 1 ($n=271$)					Subsample 2 ($n=271$)				Total Sample ($n=542$)		
	Mean ± SD	Kurtosis	Skewness	EFA Factor Loading	Common variance	Mean ± SD	Kurtosis	Skewness	CFA Factor Loading	Mean ± SD	Kurtosis	Skewness
1. I often avoid working more hours, if there is no additional pay.	2.51 ± 0.92	-0.81	-0.16	0.73	0.53	2.56 ± 0.88	-0.49	-0.18	0.61	2.52 ± 0.96	-0.16	-0.87
2. I am doing the bare minimum work to avoid being fired.	2.56 ± 0.95	-0.76	-0.16	0.59	0.34	2.48 ± 0.97	-0.97	-0.16	0.59	2.53 ± 0.90	-0.17	-0.66
3. I feel there is a lack of opportunities to learn and grow in my organisation.	2.57 ± 0.80	-0.17	-0.20	0.57	0.32	2.61 ± 0.93	-0.71	-0.41	0.55	2.59 ± 0.87	-0.32	-0.48
4. I feel there is a lack of meaningfulness at work.	2.42 ± 0.97	-1.00	-0.06	0.79	0.63	2.47 ± 0.98	-1.01	-0.20	0.75	2.45 ± 0.97	-0.13	-1.02
5. I feel I have a lack of interest in attending meetings.	2.26 ± 0.96	-0.86	0.17	0.62	0.39	2.37 ± 1.05	-1.05	0.07	0.56	2.32 ± 1.00	0.13	-0.96
6. I feel there is a lack of passion and enthusiasm in me to work above and beyond.	2.51 ± 0.90	-0.33	-0.04	0.62	0.39	2.53 ± 0.93	-0.59	-0.18	0.62	2.52 ± 0.91	-0.11	-0.48
7. I feel there is a lack of feeling regarding my employer's caring for me.	2.52 ± 0.90	-0.61	-0.08	0.67	0.45	2.58 ± 1.00	-0.93	-0.18	0.77	2.55 ± 0.95	-0.12	-0.79
Quiet Quitting Scale										2.49 ± 0.64	0.64	-0.27
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.82										
Bartlett's Test of Sphericity Sig.		< 0.01										
Eigenvalue		3.04										
Total variance explained (%)		43.46										

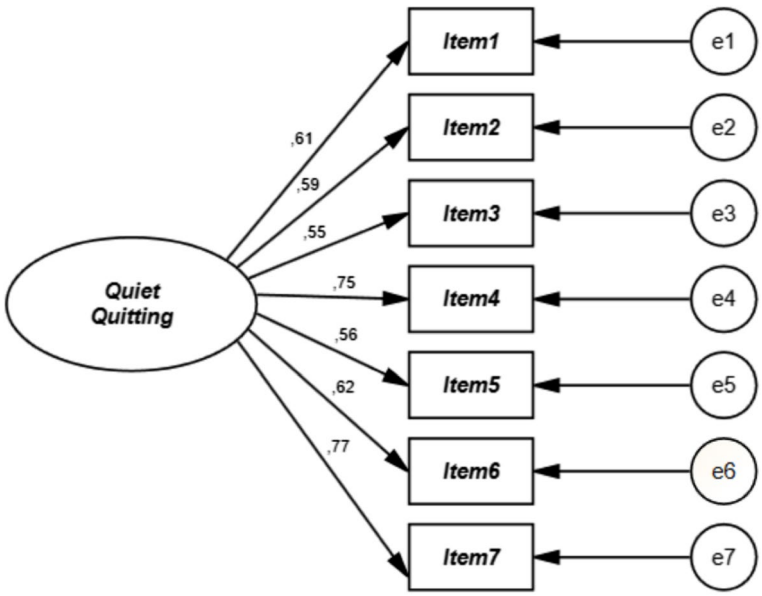

Fig. 1 Confirmatory factor analysis results of the Turkish version of the Quiet Quitting Scale

Table 3 Intraclass correlation coefficients (ICC), and 95% confidence intervals (CI)

Items	ICC	95% CI (lower–upper bound)
1	0.82	0.66-0.90
2	0.90	0.82-0.95
3	0.63	0.32-0.80
4	0.93	0.88-0.96
5	0.71	0.46-0.84
6	0.86	0.75-0.93
7	0.84	0.70-0.91
Total Score	0.91	0.83-0.95

*$p<0.01$ (2-tailed)

Test-retest reliability (ICC)

To evaluate the test-retest reliability, 50 participants were asked to answer the items in the scale again after 1 month [8]. However, 43 of the 50 participants were reached again. Therefore, the scale was applied twice to 43 participants and the Interpretation of ICC values was examined. Intraclass correlation values between 0.60 and 0.75 are considered "good" and higher than 0.75 as "excellent" [21]. In this study, it was determined that the ICC values of two items were between 0.60 and 0.75, and the ICC values of the other items and the total scale score were higher than 0.75 (Table 4). Accordingly, it can be stated that the test-retest reliability of the scale is high.

Discussion

This study investigated the validity and reliability of the Turkish version of the QQS in healthcare workers. In the EFA, the total explained variance for the single-factor structure of the scale was found to be 43.46%. In the original version of the scale, this value was reported as 58.40% [4]. In the study conducted by Karrani et al. [28], the explained variance was 76.37%. Although the total explained variance in our study is lower than in these studies, it exceeds the expected threshold [3]. The EFA was conducted on subsample 1, while the CFA was performed on subsample 2. The alignment of the findings from the CFA with the theoretical model was assessed based on the results of various fit indices. The findings from the CFA indicate that the scale demonstrated good fit indices. The findings of EFA and CFA confirmed the one-dimensional structure of the Turkish version of the scale, consistent with its original version [4].

To test the convergent validity of the scale, the burnout level of healthcare workers (of the same study group) was also measured. In our study, a statistically significant positive relationship was identified between quiet

Table 4 Item-total statistics, Cronbach's Alpha and Spearman-Brown coefficient, and correlation matrix of items

Items	Scale means if an item deleted	Scale variance if item deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's alpha if the item deleted	Cronbach's Alpha	Correlation matrix of items						
							1	2	3	4	5	6	7
Subsample 1						0.78							
1	14.84	13.03	0.57	0.38	0.74		1						
2	14.78	13.67	0.44	0.22	0.77		0.34*	1					
3	14.78	14.48	0.42	0.21	0.77		0.29*	0.27*	1				
4	14.93	12.31	0.65	0.47	0.72		0.57*	0.32*	0.38*	1			
5	15.09	13.42	0.47	0.26	0.76		0.34*	0.38*	0.16*	0.39*	1		
6	14.84	13.74	0.47	0.24	0.76		0.32*	0.21*	0.35*	0.40*	0.29*	1	
7	14.83	13.47	0.51	0.28	0.75		0.38*	0.26*	0.26*	0.47*	0.34*	0.34*	1
Subsample 2						0.82							
1	15.03	17.34	0.55	0.32	0.80		1						
2	15.11	16.86	0.55	0.32	0.81		0.37*	1					
3	14.99	17.30	0.51	0.27	0.81		0.40*	0.35*	1				
4	15.12	16.05	0.65	0.46	0.79		0.46*	0.38*	0.40*	1			
5	15.22	16.62	0.52	0.29	0.81		0.35*	0.44*	0.34*	0.41*	1		
6	15.06	17.12	0.54	0.33	0.81		0.32*	0.33*	0.34*	0.48*	0.30*	1	
7	15.01	15.82	0.67	0.49	0.78		0.45*	0.46*	0.37*	0.60*	0.38*	0.51*	1
Total Sample						0.81							
1	14.94	15.16	0.56	0.34	0.78		1						
2	14.95	15.27	0.49	0.26	0.79		0.35*	1					
3	14.88	15.88	0.47	0.23	0.79		0.35*	0.31*	1				
4	15.02	14.16	0.65	0.46	0.76		0.52*	0.35*	0.39*	1			
5	15.15	15.00	0.50	0.27	0.79		0.35*	0.40*	0.26*	0.40*	1		
6	14.95	15.42	0.51	0.28	0.79		0.32*	0.27*	0.35*	0.44*	0.30*	1	
7	14.92	14.63	0.60	0.38	0.77		0.42*	0.36*	0.32*	0.54*	0.36*	0.43*	1

*$p<0.01$ (2-tailed)

quitting and burnout. This finding indicates that the scale's convergent validity has been established. Galanis et al. [17] conducted a study on 946 nurses that found a relationship between quiet quitting and burnout. Additionally, a study conducted on healthcare workers in Türkiye stated that economic conditions are the most significant factor leading to quiet quitting among healthcare workers [20]. Furthermore, workplace stress and pressure, emotional exhaustion, lack of development opportunities, work/life imbalance, job dissatisfaction, and lack of organizational support can trigger both burnout and quiet quitting [15, 17, 36].

To test the reliability of the QQS, internal consistency was first examined. For this reason, Cronbach alpha coefficient and item-total correlations were analysed. In this study, the Cronbach alpha coefficient of the scale ($\alpha = 0.81$) was found to be high. Similarly, in the study conducted by Anand et al. [4], the QQS Cronbach alpha coefficient (0.83) was found to be high. In our study, the item-total correlations were between 0.47 and 0.65. These findings indicate that the scale has internal consistency. In the present study, in addition to internal consistency, test-retest reliability and split-half reliability were examined to test the reliability of the scale. To assess the test-retest reliability of the scale, it was conducted twice with a one-month interval. Upon analyzing ICCs obtained from the two administrations, it was determined that the scale exhibited adequate test-retest reliability. Finally, the Sperman-Brown coefficient was examined to evaluate the split-half reliability and it was determined that the scale also had split-half reliability. When a general evaluation of the reliability findings is made, it can be said that the scale has high reliability.

The concept of quiet quitting, which can be considered a new concept, started to attract attention with the COVID-19 pandemic [32, 28] and academic studies on quiet quitting have increased in recent years. Some of these studies were related to the development of the quiet quitting scale [4, 18, 28]. The scale developed by Galanis et al. [18] consists of 3 dimensions and 9 items. The scale developed by Karrani et al. [28] consists of one dimension and 10 items. In the Turkish literature review, only 2 studies developed in Turkish were found [27, 47]. The scale developed by Karaşin and Öztırak [27] is a scale conducted on healthcare workers and consists of 3 dimensions and 41 items. The scale developed by Yücedağlar et al. [47] was applied to teachers and consists of 3 dimensions and 17 items. In our study, the validity and reliability study of the quiet quitting scale developed by Anand et al. [4] was conducted. It is thought that the scale items are suitable for Turkish culture. The research findings support that the Turkish version of the scale is valid and reliable. In addition, the fact that the scale consists of a single dimension and the number of items is low (7 items) is thought to facilitate the usability of the scale.

The present study was conducted on healthcare workers. It is known that burnout levels, work stress, workload, occupational risks and hazards are high among healthcare workers [1, 5, 38, 40]. Studies have revealed that during the COVID-19 pandemic period, workload, work stress and anxiety in healthcare workers increased along with the turnover intention [2, 13, 31]. Therefore, it can be expected that the level of quiet quitting is high among healthcare workers. In a study conducted by Galanis et al. [19] on 1760 healthcare workers, more than half of the participants (57.9%) were described as quiet quitters. However, it can be said that studies on quiet quitting in healthcare workers are limited and more studies are needed. A quiet quitting measurement tool will be needed for new studies to be conducted. In our study, it is thought that the QQS with Turkish validity and reliability will be a valuable tool in meeting this need.

Limitations

Our study has some limitations. The study was conducted in 1 training and research hospital and 1 state hospital. Therefore, the results may not be valid for other types of hospitals (e.g. private hospitals). In addition, in this study conducted on healthcare workers, no distinction was made between healthcare workers (nurses, doctors, etc.). It is recommended that future studies be conducted in different types of hospitals and with different groups of healthcare workers. This study was designed as a cross-sectional study. Thus, the ability to track or verify changes over time is limited. The measurement instruments used in the study (QQS and BMS) have certain limitations. For example, it should be noted that both scales are based on subjective responses and that responses may depend on participants' emotional states, momentary perceptions and episodic changes. In this study, the lack of assessment of measurement invariance was regarded as a limitation. These limitations should be taken into account when considering the results and implications of the research.

Conclusion

The Turkish version of the QQS is a valid and reliable instrument to measure the level of quiet quitting among healthcare workers. The issue of quiet quitting has attracted attention in recent years. More research is needed to understand and prevent quiet quitting in healthcare workers. Research can be conducted on different study groups using the scale whose validity and reliability were tested in this study. In addition, it is suggested that future studies should be conducted to examine the relationship between quiet quitting and different variables such as performance, job satisfaction, workload, organizational support, and work environment.

Appendix

Quiet Quitting Scale

Item (English)	Items (Turkish)
1. I often avoid working more hours, if there is no additional pay.	1. Ek ödeme yoksa, genellikle daha fazla çalışmaktan kaçınırım.
2. I am doing the bare minimum work to avoid being fired.	2. Çalıştığım yerde görevime devam edebilmek için gerekli olan asgari düzeyde iş yaparım.
3. I feel there is a lack of opportunities to learn and grow in my organisation.	3. Kurumumda öğrenme ve gelişme fırsatlarının eksik olduğunu hissediyorum.
4. I feel there is a lack of meaningfulness at work.	4. Yaptığım işin anlamlı (değerli, önemli) olduğu konusunda eksiklik hissediyorum.
5. I feel I have a lack of interest in attending meetings.	5. Kurumumdaki toplantılara katılma konusunda istekli değilim.
6. I feel there is a lack of passion and enthusiasm in me to work above and beyond.	6. Gereğinden fazla çalışmak için içimde tutku ve heves eksikliği olduğunu hissediyorum.
7. I feel there is a lack of feeling regarding my employer's caring for me.	7. Yöneticimin beni önemsemediğini hissediyorum.

Acknowledgements
We thank all participants who voluntarily contributed to this study.

Disclosure of potential conflicts of interest
The authors declared no conflicts of interest with respect to the research, authorship, and/or publication of this article.

Informed consent
Consent was obtained from all participants included in the study.

Authors' contributions
AY, EG, and İG contributed to the design of the study, wrote the initial draft of the manuscript. MY reviewed and edited the manuscript. All authors read and approved the final version of the manuscript, and agreed to be accountable for the content of the work.

Funding
The authors received no financial support for the research, authorship, and/or publication of this article.

Data availability
The datasets generated during and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate
All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Ethical approval was obtained from the approved by the Batman University Ethics Committee (date: 04.01.2023; decision: 2023/01–32).

Competing interests
The authors declare no competing interests.

Received: 5 July 2024 Accepted: 21 October 2024
Published online: 06 December 2024

References

1. Adamopoulos IP, Syrou NF. Workplace safety and occupational health job risk hazards in the public health sector in Greece. Eur J Environ Public Health. 2022;6(2):em0118. https://doi.org/10.21601/ejeph/12229.
2. Alawi HY, Sankar P, Ali Akbar J, M., Natarajan VK. Factors influencing turnover intention among healthcare employees during the COVID-19 pandemic in the private hospitals of Bahrain. Bottom Line. 2023;36(2):135–60. https://doi.org/10.1108/BL-01-2022-0018.
3. Alpar R. *Uygulamalı çok değişkenli istatistiksel yöntemler* [Applied multivariate statistical methods]. Detay Yayıncılık. Turkish; 2013.
4. Anand A, Doll J, Ray P. Drowning in silence: a scale development and validation of quiet quitting and quiet firing. Int J Organizational Anal. 2023. https://doi.org/10.1108/IJOA-01-2023-3600.
5. Ayalew E, Workineh Y, Semachew A, Woldgiorgies T, Kerie S, Gedamu H, Zeleke B. Nurses' intention to leave their job in sub-saharan Africa: a systematic review and meta-analysis. Heliyon. 2021;7(6):e07382. https://doi.org/10.1016/j.heliyon.2021.e07382.
6. Aydin E, Azizoğlu Ö, Aydin E, Azizoğlu Ö. (2022). A new term for an existing concept: Quiet quitting—a selfdetermination perspective. In *International Congress on Critical Debates in Social Sciences* (pp. 285–295). https://www.researchgate.net/profile/Esra-Aydin-7/publication/366530514.
7. Boy Y, Sürmeli M. Quiet quitting: a significant risk for global healthcare. J Global Health. 2023;13:03014. https://doi.org/10.7189/jogh.13.03014.
8. Büyüköztürk Ş. *Sosyal Bilimlerde Veri Analizi El kitabı* [Handbook of data analysis in social sciences]. Pegem Yayınevi. Turkish; 2013.
9. Capri B. The Turkish Adaptation of the Burnout Measure-Short Version (BMS) and Couple Burnout Measure- Short Version (CBMS) and the Relationship between Career and Couple Burnout Based on Psychoanalytic-Existential Perspective. Educational Sciences: Theory and Practice. 2013;13(3):1408–17.
10. Chirico F, Crescenzo P, Nowrouzi-Kia B, Tarchi L, Batra K, Ferrari G, Leiter M. Prevalence and predictors of burnout syndrome among schoolteachers during the COVID-19 pandemic in Italy: a cross-sectional survey. J Health Social Sci. 2022;7(2):195–211.
11. Chirico F, Batra K, Batra R, Öztekin GG, Ferrari G, Crescenzo P, Yildirim M. Spiritual well-being and burnout syndrome in healthcare: a systematic review. J Health Social Sci. 2023;8(1):13–32.
12. Dilekçi Ü, Nartgün ŞS. Öğretmenlerin algıladıkları uyumsal performans ölçeği'nin Türk kültürüne uyarlanması: Geçerlik-güvenirlik ve betimsel analiz [Adaptation of teachers' perceived adaptive performance scale to Turkish culture: validity-reliability and descriptive analysis]. Hacettepe Üniversitesi Eğitim Fakültesi Dergisi. 2020;35(2):448–65. https://doi.org/10.16986/HUJE.2019052615. Turkish.
13. Ekingen E, Teleş M, Yıldız A, Yıldırım M. (2023). Mediating effect of work stress in the relationship between fear of COVID-19 and nurses' organizational and professional turnover intentions. Archives of Psychiatric Nursing, 42, 97–105. https://doi.org/10.1016/j.apnu.2022.12.027. Get and content.
14. Formica S, Sfodera F. The great resignation and quiet quitting paradigm shifts: an overview of current situation and future research directions. J Hospitality Mark Manage. 2022;31(8):899–907. https://doi.org/10.1080/19368623.2022.2136601.
15. Gabelaia I, Bagociunaite R. The Impact of Quiet Quitting on Overall Organizational Behavior and Culture. In: International Conference on Reliability and Statistics in Transportation and Communication. Springer Nature Switzerland: Cham; 2023. p. 366–78.
16. Galanis P. Quiet quitting: a significant threat for Healthcare Industry or an inevitable reaction of the Healthcare Workers? Int J Caring Sci. 2023;16(2):512–3.
17. Galanis P, Katsiroumpa A, Vraka I, Siskou O, Konstantakopoulou O, Katsoulas T, Kaitelidou D. The influence of job burnout on quiet quitting among nurses: the mediating effect of job satisfaction. This is a preprint; 2023a. https://doi.org/10.21203/rs.3.rs-3128881/v1.
18. Galanis P, Katsiroumpa A, Vraka I, Siskou O, Konstantakopoulou O, Moisoglou I, Gallos P, Kaitelidou D. The quiet quitting scale: development and

initial validation. AIMS Public Health. 2023b;10(4):828–48. https://doi.org/10.3934/publichealth.2023055.
19. Galanis P, Katsiroumpa A, Vraka I, Siskou O, Konstantakopoulou O, Katsoulas T, Kaitelidou D. Nurses quietly quit their job more often than other healthcare workers: an alarming issue for healthcare services. Int Nurs Rev. 2024;1–10. https://doi.org/10.1111/inr.12931.
20. Gun I. Sessiz Istifa Niyetini Etkileyen faktörlerin ahp yöntemi ile değerlendirilmesi: sağlik çalişanlarinda bir uygulama [Evaluation of factors affecting quiet quitting intention with AHP method: an application in healthcare workers]. J Administrative Sciences/Yonetim Bilimleri Dergisi. 2024;22(52). https://doi.org/10.35408/comuybd.1405013.
21. Günal A, Pekçetin S, Demirtürk F, Şenol H, Håkansson C, Wagman P. Validity and reliability of the Turkish occupational balance questionnaire (OBQ11-T). Scand J Occup Ther. 2020;27(7):493–9. https://doi.org/10.1080/11038128.2019.1673479.
22. Gürbüz S. *AMOS Ile yapısal eşitlik modellemesi* [Structural equation modeling with AMOS]. Seçkin Yayıncılık. Turkish; 2019.
23. Hamouche S, Koritos C, Papastathopoulos A. Quiet quitting: relationship with other concepts and implications for tourism and hospitality. Int J Contemp Hospitality Manage. 2023;35(12):4297–312. https://doi.org/10.1108/IJCHM-11-2022-1362.
24. Harter J. (2022). Is quiet quitting real. Gallup, Inc. https://www.celynarden.com/uploads/2/0/1/3/2013557/is_quiet_quitting_real_.pdf.
25. Johnson JR. (2023). What's New About Quiet Quitting (and What's Not). The Transdisciplinary Journal of Management. https://tjm.scholasticahq.com/articles?tag=Quiet%20Quitting.
26. Kalaycı Ş. *SPSS uygulamalı çok değişkenli istatistik teknikleri* [Multivariate statistical techniques with SPSS]. Asil Yayın Dağıtım. Turkish; 2010.
27. Karaşin Y, Öztırak M. Sessiz Istifa tutum ölçeğinin geliştirilmesi [Development of the quiet quitting attitude scale]. Çankırı Karatekin Üniversitesi İktisadi Ve İdari Bilimler Fakültesi Dergisi. 2023;13(4):1443–60. https://doi.org/10.18074/ckuiibfd.1311522. Turkish.
28. Karrani MA, Bani-Melhem S, Mohd-Shamsudin F. Employee quiet quitting behaviours: conceptualization, measure development, and validation. Serv Ind J. 2024;44(3–4):218–36. https://doi.org/10.1080/02642069.2023.2286604.
29. Kayış A. Güvenirlik analizi (reliability analysis). In: Kalaycı S, editor. SPSS uygulamalı çok değişkenli istatistik teknikleri içinde. 2010. p. 403–524 [Multivariate statistical techniques with SPSS]. Asil Yayın Dağıtım. Turkish.
30. Kline RB. Principles and pracitce of structural equation modeling. The Guilford Press; 2011.
31. Labrague LJ, de Los Santos JAA. Fear of COVID-19, psychological distress, work satisfaction and turnover intention among frontline nurses. J Nurs Adm Manag. 2021;29(3):395–403. https://doi.org/10.1111/jonm.13168.
32. Lu M, Al Mamun A, Chen X, Yang Q, Masukujjaman M. Quiet quitting during COVID-19: the role of psychological empowerment. Humanit Social Sci Commun. 2023;10(1):1–16. https://doi.org/10.1057/s41599-023-02012-2.
33. Mahand T, Caldwell C. Quiet quitting—causes and opportunities. Bus Manage Researches. 2023;12(1):9–18. https://doi.org/10.5430/bmr.v12n1p9.
34. Malach-Pines A. The burnout measure, short version. Int J Stress Manage. 2005;12(1):78–88. https://doi.org/10.1037/1072-5245.12.1.78.
35. Malach-Pines A, Aronson E. Career burnout: causes and cures. New York: Free; 1988.
36. Meredith LS, Bouskill K, Chang J, Larkin J, Motala A, Hempel S. Predictors of burnout among US healthcare providers: a systematic review. BMJ Open. 2022;12(8):e054243. https://doi.org/10.1136/bmjopen-2021-054243.
37. Meydan CH, Şeşen H. Yapısal eşitlik Modellemesi AMOS uygulamaları. [Structural equation modeling applications using AMOS]. Detay Yayıncılık. Turkish; 2011.
38. O'Connor K, Neff DM, Pitman S. Burnout in mental health professionals: a systematic review and meta-analysis of prevalence and determinants. Eur Psychiatry. 2018;53:74–99. https://doi.org/10.1016/j.eurpsy.2018.06.003.
39. Özdamar K. Paket programlar ile istatistiksel veri analizi (Cilt 1) [Statistical data analysis with package programs (Volume 1)]. Turkish: Nisan Kitapevi; 2013.
40. Rotenstein LS, Brown R, Sinsky C, Linzer M. The association of work overload with burnout and intent to leave the job across the healthcare workforce during COVID-19. J Gen Intern Med. 2023;38(8):1920–7. https://doi.org/10.1007/s11606-023-08153-z.
41. Serenko A. The human capital management perspective on quiet quitting: recommendations for employees, managers, and national policymakers. J Knowl Manage. 2023;28(1):7–43. https://doi.org/10.1108/JKM-10-2022-0792.
42. Sousa VD, Rojjanasrirat W. Translation, adaptation and validation of instruments or scales for use in cross-cultural health care research: a clear and user-friendly guideline. J Eval Clin Pract. 2011;17(2):268–74. https://doi.org/10.1111/j.1365-2753.2010.01434.x.
43. Tsemach S, Barth A. Authentic leadership as a predictor of organizational citizenship behaviour and teachers' burnout: What's 'quiet quitting'got to do with it? Educational Manage Adm Leadersh. 2023;1–21. https://doi.org/10.1177/17411432231212122.
44. Worthington RL, Whittaker TA. Scale development research: a content analysis and recommendations for best practices. Couns Psychol. 2006;34(6):806–38. https://doi.org/10.1177/0011000006288.
45. Xueyun Z, Al Mamun A, Masukujjaman M, Rahman MK, Gao J, Yang Q. Modelling the significance of organizational conditions on quiet quitting intention among Gen Z workforce in an emerging economy. Sci Rep. 2023;13(1):15438. https://doi.org/10.1038/s41598-023-42591-3.
46. Yu DS, Lee DT, Woo J. Issues and challenges of instrument translation. West J Nurs Res. 2004;26(3):307–20. https://doi.org/10.1177/0193945903260554.
47. Yücedağlar A, Gılıç F, Uzun NB, İnandı Y. Öğretmenlerde Sessiz Istifa ölçeği: bir geçerlik ve güvenirlik çalışması [The quiet quitting scale in teachers: a validity and reliability study]. Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi. 2024;69227–51. https://doi.org/10.21764/maeuefd.1313367. Turkish.
48. Zuzelo PR. Discouraging quiet quitting: potential strategies for nurses. Holist Nurs Pract. 2023;37(3):174–5. https://doi.org/10.1097/HNP.0000000000000583.

Publisher's Note