ORIGINAL ARTICLE

The association between burnout of healthcare employees and quality of work-life in Northwestern Turkey

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Abstract

Aim The present study aimed to determine the factors that affect the working life quality (WLQ) of healthcare employees and to examine the association between burnout levels and WLQ.

Subject and methods This cross-sectional study was conducted with 332 healthcare employees working in Kirklareli, Northwestern Turkey. The data were collected with the e-survey, which included the Personal Information Form, Working Life Quality Questionnaire (WLQQ), and Maslach Burnout Inventory-General Form (MBI-GF).

Results A total of 54.2% of the participants, who had a mean age of 34.45±8.82, were midwives/nurses and 14.5% were physicians. It was determined that 71.1% of the participants had increased workloads, 81.6% were working outside their job descriptions during the pandemic period, and 57.8% wanted to quit their job. In the multivariate linear regression analysis, according to the adjusted models, a positive and significant association was determined between the WLQQ general dimension scores and having professional seniority of ≥10 years, and a negative association was detected with working in a secondary healthcare institution, increased workload, working outside the job description, and the desire to quit the job ($p < 0.05$). A positive association was detected between the WLQQ general dimension scores and the competence sub-dimension of the MBI-GF, and a significant and negative association was detected between burnout and desensitization ($p < 0.05$).

Conclusion WLQ scores increased as the burnout and desensitization decreased and the competence increased among the healthcare employees. In order to raise the WLQ, initiatives must be planned to improve the working conditions of healthcare employees and reduce psychosocial risks.

Keywords Working life quality · Burnout · Health professional · Healthcare employees · Occupational health

Introduction

Working life quality (WLQ) can be defined as the regulation of working conditions in a way to bring satisfaction to employees (Demir 2011). WLQ also expresses the level of satisfaction or dissatisfaction with individuals' careers (Patil and Swadi 2014). WLQ of individuals is affected by personal factors such as attitudes, behaviors, experiences, and organizational and environmental factors such as organizational culture, organizational justice, intra-organizational communication, and workload (Polat and Erdem 2017).

It was reported previously that those who are satisfied with their careers have high WLQ levels, and those who are dissatisfied or have unmet needs have low WLQ levels (Patil and Swadi 2014). Türk et al. (2012) conducted a study with young physicians, the median WLQ score

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was found to be slightly above the moderate level, and it was reported that physicians were mostly dissatisfied with adequate and fair remuneration. In another study that was conducted with nurses, approximately half of the participants reported their WLQ as good, salaries and wages were the leading factors affecting the WLQ (Çatak and Bahçecik, 2015). In a study conducted with the academic staff at Jordanian Universities, it was determined that the WLQ was at a moderate level (Al-Daibat 2018).

Burnout is defined as a syndrome of emotional burnout, feelings of desensitization, and lack of personal accomplishment, especially regarding an individual's professional activity (Pulcrano et al. 2016). The primary causes of burnout are high demand with low influence, high participation without adequate reward or satisfaction, and low social support (Bauer et al. 2003).

The health area involves many factors that cause stress and is a different area from other work environments because of the difficulties of its employees in serving sick individuals and frequently facing stressors in working environments (Patel et al. 2018). Also, reasons such as heavy workload, caring for severe and terminally ill patients, and having to give emotional support to patients and their relatives when needed, as well as inadequacies in healthcare, unbalanced distribution of services and personnel cause frustration and tension in healthcare employees (Ergun 2008). In previous studies that investigated the WLQ of healthcare employees, significant burnout, depression, and unhealthy mood levels were reported in this population (Bragard et al. 2010; Panagioti et al. 2018). It is seen that the low WLQ of health professionals first affects their own health negatively. Therefore, low WLQ in healthcare professionals can also affect the quality of service of the patients they care for. Therefore, this situation was considered to be an important public health problem.

The Coronavirus Disease 2019 (COVID-19) pandemic had a devastating effect on healthcare systems and employees (Raudenska et al. 2020). The pandemic, which still has its effects in the world, also dramatically changed the way healthcare employees worked and their job demands. Increased workload, insufficient protective measures, risk of transmission, physical pressure, isolation, and loss of social support contributed to the risk of mental health deterioration in healthcare employees (Buselli et al. 2020). High demands from employees might cause burnout and increased absenteeism. This shows the importance of preventing burnout syndrome to promote WLQ (Guerrero-Barona et al. 2020). For this reason, in the present study, the purpose was to determine the effects of burnout levels of healthcare employees on WLQ in Kirklareli, Northwestern Turkey.

Method

Study design

This cross-sectional study was conducted between March and June 2021 in Kirklareli, Northwestern Turkey. The population of the study consisted of 3503 healthcare employees, including specialist physicians, general practitioners, midwives, nurses, and other healthcare employees working in public healthcare institutions in Kirklareli Center and seven other districts. The minimum sampling size was calculated as 218 with $\alpha = 0.05$ and 85% power for relationship analysis according to the 0.20 effect size in G*Power 3.1.9.7 program (Faul et al. 2009). A total of 332 people, who were aged 18 and over, who volunteered randomly to participate in the study, and who worked in public institutions affiliated with the Kirklareli Provincial Health Directorate were reached.

Data collection

The data of the healthcare employees were collected with an e-survey. In the first question, the participants were asked to confirm that they participated in the study voluntarily, and the healthcare employees who agreed to participate in the study were asked to answer the e-survey by themselves. The data were collected by using the Personal Information Form, which was prepared by the researchers, Working Life Quality Questionnaire and Maslach Burnout Inventory-General Form.

Personal information form

The Personal Information Form consisted of a part in which the socio-demographic, occupational, and working life characteristics of the participants were questioned about COVID-19.

Working life quality questionnaire (WLQQ)

The WLQQ was developed by Cacioppe and Mock (1984) to measure the quality of work life. Macit et al. (2019) conducted the Turkish validity and reliability study of the scale, which consisted of five sub-dimensions as commitment, effectiveness, development, atmosphere, and management. The increase in the overall score shows a higher WLQ score. Macit et al. (2019) reported the Cronbach Alpha coefficient of the overall dimension of the scale as 0.92, and this coefficient of the sub-dimensions ranged between 0.55–0.91.

In the present study, the Cronbach alpha coefficient of the overall dimension was 0.89, and between 0.48–0.91 for the sub-dimensions.

Maslach burnout inventory-general form (MBI-GF)

MBI-GF was developed by Schaufeli et al. (1996) to determine burnout levels (Gündüz et al. 2013). The Turkish validity and reliability study was conducted by Gündüz et al. (2013) in three sub-dimensions: burnout, cynicism, and efficacy. High scores in the burnout desensitization subscales and low scores in the competency subscales show burnout. Gündüz et al. (2013) reported the Cronbach's alpha values as 0.82, 0.77, and 0.72 for the burnout, cynicism, and efficacy sub-dimensions of the scale. Cronbach's alpha coefficients were calculated as 0.90, 0.76, and 0.77, respectively, in the present study.

Statistical analysis

Among the descriptive tests, numbers (n), percentages (%), mean and standard deviation ($\pm$ SD) values were used in the analysis of the data. Reliability analysis was performed for WLQQ and MBI-GF reliability and results were tested with Cronbach's alpha value. The normality of the distribution of the scales was examined with the Kolmogorov–Smirnov test. The Mann–Whitney U test was used to compare the means of two independent groups in the scales that had nonparametric distribution, and the Kruskal Wallis variance analysis was used to compare the means of three or more independent groups. The relationship between two continuous variables was analyzed with Spearman's correlation analysis. Dummy variables were created in multivariate linear regression analysis for the nominal variables included in the model and coded as 0–1. In the multivariate linear regression analysis of predictors associated with WLQQ, variables with p < 0.05 in univariate analyses were included in the model. Multivariate linear regression analysis of the predictors associated with WLQ was also performed. The variation in the total variances was explained between 5.8–21.3% for the WLQQ general and sub-dimensions of the predictors included in the model (adjusted R-square: Adj. R^2). Multivariate linear regression analysis of the predictors that were associated with WLQQ and MBI-GF were shown as unadjusted and adjusted. Expert opinion was obtained in the multivariate linear regression analysis of predictors associated with WLQQ and MBI-GF. Accordingly, it was decided to include the variables of professional seniority, institution, increasing workload, working status outside the job description, and willingness to leave the job in the model, and the adjusted model was adjusted according to these variables. The variation in total variances for the WLQQ overall and sub-dimensions was explained between 23.7–36.3% in the adjusted model. The data were analyzed using the Statistical Package for the Social Sciences version 22.0 (SPSS 22.0) statistical package program, and the level of significance was taken as $p < 0.05$.

Results

Table 1 shows the descriptive characteristics of the participants and the distribution of these characteristics according to the WLQ general and sub-dimension mean scores. The mean age of the participants was 34.45±8.82 (Min 21, Max 67), 76.5% of the participants were women, 54.2% of them were midwives or nurses, 14.5% were physicians, and 31.3% were from other health professions (dietitian, pharmacist, physiotherapist, psychologist, social worker, healthcare officer, and administrative staff). The mean professional seniority year of the employees was found to be 11.82±9.03 (Min 0.33, Max 43.00) and 53.9% of the study group was working in hospitals (which is also the rate of secondary healthcare), 11.1% in family healthcare centers or healthcare houses, 26.8% in provincial or district healthcare directorates or community healthcare centers, 8.1% in other institutions (emergency health stations, healthy living center, public healthcare laboratory, oral and dental healthcare center). It was also found that half of the group (50.0%) worked in shifts. During the study, 25.6% of healthcare employees were diagnosed with COVID-19, 71.1% of them reported that their workload increased because of the pandemic, and 81.6% of them did work outside of their job descriptions during the pandemic period. It was also found that 57.8% of the study group wanted to quit their job during the pandemic period, 80.1% perceived the working conditions as heavy, and 90.4% of the group found their income insufficient according to the working conditions during the COVID-19 pandemic.

The mean WLQQ general score of the healthcare employees was found to be 48.58 ± 9.23 (Min 25, Max 65) and the mean scores of WLQQ commitment, effectiveness, development, atmosphere, and management sub-dimensions were 11.36 ± 2.65, 12.06 ± 2.31, 13.26 ± 1.80, 7.10 ± 1.87, and 19.67 ± 6.47, respectively. The mean scores of MBI-GF sub-dimensions were 16.27 ± 5.43 (Min 5, Max 25) for burnout, 10.18 ± 3.95 (Min 4, Max 20) for desensitization, and 25.22 ± 3.52 (Min 11, Max 30) for competence (not shown in the table).

Table 2 shows the relationship of WLQQ and MBI-GF with general and sub-dimension scores. Statistically significant negative relationships were found in the relationship analysis between the WLQQ general scores and the MBI-GF sub-dimensions of burnout (r –0.466, $p = 0.000$) and desensitization (r –0.468, $p = 0.000$) and positive relationships with competence (r 0.360, $p = 0.000$). The relationship of

Table 1 The descriptive characteristics of the participants and their distribution according to the WLQ general and sub-dimensional scores (N = 332)

	Variables	N (%)	General Mean ±SD	Commitment Mean ±SD	Effectiveness Mean ±SD	Development Mean ±SD	Atmosphere Mean ±SD	Management Mean ±SD
Gender	Male	78 (23.5%)	50.63± 9.00*	12.06± 2.14**	8.45± 1.50	8.94± 1.20	7.49± 1.78*	13.69± 4.62
	Female	254 (76.5%)	47.94± 9.23	11.15± 2.41	8.11± 1.56	8.74± 1.28	6.98± 1.88	12.97± 4.53
Age	<35 years	184 (55.4%)	47.20± 9.63**	11.08± 2.45*	8.00± 1.55**	8.70± 1.30	6.76± 1.95***	12.66± 4.86*
	≥35 years	148 (44.6%)	50.28± 8.44	11.72± 2.23	8.43± 1.52	8.89± 1.20	7.52± 1.68	13.74± 4.08
Occupation	Physician	48 (14.5%)	50.54± 9.02	11.85± 2.17	8.17± 1.75	8.83± 1.33	7.40± 1.43	14.29± 4.74
	Midwife/Nurse	180 (54.2%)	47.91± 8.96	11.10± 2.37	8.09± 1.47	8.79± 1.24	7.04± 1.89	12.88± 4.44
	Other healthcare employees	104 (31.3%)	48.83± 9.73	11.59± 2.44	8.38± 1.58	8.75± 1.28	7.06± 2.00	13.06± 4.64
Professional seniority	<10 years	152 (45.8%)	47.09± 9.80**	11.12± 2.38	7.95± 1.58**	8.61± 1.29*	6.72± 1.90***	12.68± 4.93
	≥10 years	180 (54.2%)	49.83± 8.55	11.57± 2.36	8.39± 1.50	8.93± 1.22	7.42± 1.79	13.53± 4.19
Employed institution	Primary health care	153 (46.1%)	50.92±8.05***	11.75±2.18*	8.44±1.41*	8.86±1.15	7.44±1.74**	14.43±3.88***
	Secondary healthcare	179 (53.9%)	46.58±9.72	11.03±2.49	7.98±1.63	8.72±1.35	6.80±1.93	12.04±4.81
Way of working	During the day	166 (50.0%)	51.29± 8.10***	11.89± 2.29***	8.44± 1.54**	8.88± 1.20	7.54± 1.66***	14.54± 3.86***
	Shift/ watch	166 (50.0%)	45.86± 9.51	10.83± 2.35	7.94± 1.52	8.69± 1.32	6.66± 1.96	11.75± 4.77
Covid-19 diagnosis	No	247 (74.4%)	49.41± 8.70**	11.53± 2.29*	8.31± 1.48*	8.85± 1.20	7.20± 1.80	13.53± 4.35*
	Yes	85 (25.6%)	46.14± 10.30	10.88± 2.57	7.85± 1.69	8.60± 1.42	6.80± 2.02	12.01± 4.95
Increased workload	No	96 (28.9%)	52.99± 7.62***	12.35± 1.93***	8.66± 1.26***	9.01± 1.16*	7.76± 1.60***	15.21± 3.71***
	Yes	236 (71.1%)	46.78± 9.24	10.96± 2.42	8.00± 1.62	8.69± 1.29	6.83± 1.90	12.30± 4.61
Working outside the job description	No	61 (18.4%)	53.39± 9.21***	12.39± 2.12***	8.56± 1.70*	9.25± 1.07**	7.98± 1.68***	15.21± 4.36***
	Yes	271 (81.6%)	47.49± 8.90	11.13± 2.37	8.11± 1.51	8.68± 1.28	6.90± 1.85	12.68± 4.47
The desire to quit the job	No	140 (42.2%)	51.88± 8.30***	12.15± 2.12***	8.65± 1.32***	9.06± 1.04**	7.64± 1.76***	14.37± 4.10***
	Yes	192 (57.8%)	46.17± 9.16	10.79± 2.39	7.85± 1.62	8.58± 1.37	6.70± 1.85	12.24± 4.67
Working conditions	Heavy	266 (80.1%)	48.00±9.40*	11.26±2.36	8.17±1.56	8.76±1.30	7.00±1.92	12.81±4.67*
	Mild or moderate	66 (19.9%)	50.88±8.19	11.76±2.42	8.27±1.51	8.86±1.09	7.52±1.58	14.47±3.83
Perceived income	Insufficient	300 (90.4%)	47.94±9.19***	11.21±2.37***	8.14±1.56	8.77±1.26	7.01±1.88*	12.81±4.58***
	Sufficient	32 (9.6%)	54.56±7.44	12.75±1.92	8.69±1.38	8.94±1.32	7.91±1.55	16.28±2.88

*p < .05, **p < .01, ***p < .001. Mann–Whitney U test. Kruskal Wallis variance analysis

Table 2 The relationship of working life quality questionnaire (WLQQ) and Maslach burnout inventory-general form (MBI-GF) with general and sub-dimensional scores (N = 332)

MBI-GF	WLQQ					
	General	Commitment	Effectiveness	Development	Atmosphere	Management
Burnout	–0.466***	–0.410***	–0.337***	–0.234***	–0.362***	–0.396***
Cynicism	–0.468***	–0.454***	–0.406***	–0.361***	–0.351***	–0.330***
Efficacy	0.360***	0.279***	0.387***	0.496***	0.267***	0.222***

*p < .05, **p < .01, ***p < .001. Spearman correlation coefficient

WLQQ commitment, effectiveness, development, atmosphere, and management sub-dimensions with the MBI-GF sub-dimensions is given in the continuation of Table 2.

Multivariate linear regression analysis of predictors associated with WLQQ is given in Table 3. Positive associations were detected between WLQQ general dimension scores and professional seniority (p = 0.021) and statistically significant and negative associations were found with working in a secondary healthcare institution (p = 0.003), increased workload (p = 0.004), doing things outside the job description (p = 0.000), and willingness to leave work (p = 0.003). The association between WLQQ

Table 3 Multivariate linear regression analysis of predictors associated with WLQQ

Predictors	B	SE	β	p-value
General				
Gender (female)	−1.501	1.084	−0.069	0.167
Professional seniority (≥10 years)	2.147	0.923	0.116	0.021[*]
Employed institution (secondary healthcare)	−2.925	0.964	−0.158	0.003[**]
Covid-19 diagnosis (yes)	−1.608	1.077	−0.076	0.136
Increased workload (yes)	−3.152	1.079	−0.155	0.004[**]
Working outside the job description (yes)	−4.425	1.216	−0.186	0.000[***]
The desire to quit the job (yes)	−3.774	0.957	−0.202	0.000[***]
(Adj.R^2 0.213, F 13.819[***])				
Commitment				
Gender (female)	−0.649	0.290	−0.116	0.026[*]
Professional seniority (≥10 years)	0.351	0.247	0.074	0.155
Employed institution (secondary healthcare)	−0.339	0.258	−0.071	0.189
Covid-19 diagnosis (yes)	−0.350	0.288	−0.064	0.225
Increased workload (yes)	−0.781	0.288	−0.149	0.007[**]
Working outside the job description (yes)	−0.864	0.325	−0.141	0.008[**]
The desire to quit the job (yes)	−0.934	0.256	−0.195	0.000[***]
(Adj.R^2 0.151, F 9.385[***])				
Effectiveness				
Gender (female)	−0.222	0.195	−0.061	0.254
Professional seniority (≥10 years)	0.397	0.166	0.128	0.017[*]
Employed institution (secondary healthcare)	−0.253	0.173	−0.081	0.145
Covid-19 diagnosis (yes)	−0.252	0.193	−0.071	0.193
Increased workload (yes)	−0.296	0.194	−0.087	0.128
Working outside the job description (yes)	−0.223	0.218	−0.056	0.308
The desire to quit the job (yes)	−0.626	0.172	−0.200	0.000[***]
(Adj.R^2 0.100, F 6.227[***])				
Development				
Gender (female)	−0.135	0.162	−0.045	0.407
Professional seniority (≥10 years)	0.268	0.138	0.106	0.053
Employed institution (secondary healthcare)	−0.047	0.144	−0.019	0.743
Covid-19 diagnosis (yes)	−0.178	0.161	−0.062	0.271
Increased workload (yes)	−0.080	0.161	−0.029	0.621
Working outside the job description (yes)	−0.436	0.182	−0.134	0.017[*]
The desire to quit the job (yes)	−0.380	0.143	−0.149	0.008[**]
(Adj.R^2 0.058, F 3.899[***])				
Atmosphere				
Gender (female)	−0.346	0.228	−0.079	0.131
Professional seniority (≥10 years)	0.616	0.194	0.165	0.002[**]
Employed institution (secondary healthcare)	−0.455	0.203	−0.122	0.026[*]
Covid-19 diagnosis (yes)	−0.126	0.227	−0.030	0.579
Increased workload (yes)	−0.414	0.227	−0.101	0.069
Working outside the job description (yes)	−0.797	0.256	−0.166	0.002[**]
The desire to quit the job (yes)	−0.639	0.201	−0.169	0.002[**]
(Adj.R^2 0.147, F 9.170[***])				
Management				
Gender (female)	−0.149	0.551	−0.014	0.787
Professional seniority (≥10 years)	0.515	0.469	0.056	0.273
Employed institution (secondary healthcare)	−1.831	0.490	−0.201	0.000[***]
Covid-19 diagnosis (yes)	−0.702	0.547	−0.067	0.200
Increased workload (yes)	−1.581	0.548	−0.158	0.004[**]
Working outside the job description (yes)	−2.105	0.618	−0.179	0.001[**]
The desire to quit the job (yes)	−1.194	0.486	−0.130	0.015[*]
(Adj.R^2 0.165, F 10.365[***])				

[*]$p < .05$, [**]$p < .01$, [***]$p < .001$.

Table 4 Multivariate linear regression analysis of predictors associated with WLQQ and MBI-GF

Predictors	Unadjusted				Adjusted†			
	B	SE	β	*p*-value	B	SE	β	*p*-value
General								
Burnout	–0.549	0.117	–0.323	0.000	–0.371	0.121	–0.218	0.002
Cynicism	–0.395	0.167	–0.169	0.019	–0.397	0.162	–0.170	0.015
Efficacy	0.630	0.128	0.240	0.000	0.615	0.122	0.234	0.000
	(Adj.R² 0.304, F 49,254***)				*(Adj.R² 0.363, F 24.612***)*			
Commitment								
Burnout	–0.087	0.031	–0.200	0.006	–0.053	0.033	–0.121	0.114
Cynicism	–0.170	0.045	–0.282	0.000	–0.167	0.045	–0.278	0.000
Efficacy	0.088	0.034	0.131	0.010	0.086	0.034	0.127	0.012
	(Adj.R² 0.239, F 35.682***)				*(Adj.R² 0.262, F 15.703***)*			
Effectiveness								
Burnout	–0.043	0.021	–0.150	0.040	–0.023	0.022	–0.082	0.295
Cynicism	–0.089	0.030	–0.226	0.003	–0.086	0.030	–0.220	0.004
Efficacy	0.114	0.023	0.260	0.000	0.113	0.022	0.257	0.000
	(Adj.R² 0.226, F 33.143***)				*(Adj.R² 0.238, F 13.929***)*			
Development								
Burnout	–0.015	0.016	–0.066	0.345	–0.009	0.017	–0.037	0.621
Cynicism	–0.064	0.023	–0.201	0.006	–0.062	0.023	–0.194	0.008
Efficacy	0.151	0.018	0.421	0.000	0.149	0.018	0.417	0.000
	(Adj.R² 0.290, F 46.013***)				*(Adj.R² 0.297, F 18.441***)*			
Atmosphere								
Burnout	–0.089	0.026	–0.260	0.001	–0.060	0.027	–0.173	0.029
Cynicism	–0.065	0.037	–0.136	0.081	–0.060	0.036	–0.127	0.099
Efficacy	0.078	0.028	0.147	0.006	0.074	0.027	0.140	0.007
	(Adj.R² 0.172, F 23.933***)				*(Adj.R² 0.219, F 12.576***)*			
Management								
Burnout	–0.315	0.063	–0.376	0.000	–0.226	0.065	–0.270	0.001
Cynicism	–0.008	0.090	–0.007	0.927	–0.022	0.088	–0.019	0.802
Efficacy	0.198	0.069	0.153	0.004	0.193	0.066	0.149	0.004
	(Adj.R² 0.147, F 24.163***)				*(Adj.R² 0.237, F 13.869***)*			

*p < .05, **p < .01, ***p < .001. †Adjusted for professional seniority, institution, increased workload, the status of working outside the job description, and willingness to leave the job.

commitment, effectiveness, development, atmosphere, and management sub-dimensions with predictors is given in the continuation of Table 3.

Multivariate linear regression analysis of the predictors that were associated with WLQQ and MBI-GF is given in Table 4. A statistically significant and positive association was detected between WLQQ general dimension scores and competence ($p = 0.000$), and a negative association was detected between burnout ($p = 0.002$) and desensitization ($p = 0.015$). There was a positive association between WLQQ commitment, effectiveness, development, atmosphere, and management sub-dimensions and competence, which is one of the MBI-GF sub-dimensions ($p < 0.05$). A negative association was detected between WLQQ commitment, effectiveness and development

sub-dimensions, and desensitization ($p < 0.01$) along with a statistically significant and negative association ($p < 0.05$) between WLQQ atmosphere and management sub-dimensions and burnout.

Discussion

It was found in the present study that WLQ was higher among healthcare employees who had professional seniority of 10 years or more. Increasing professional seniority in Turkey is rewarded with increased salary and increased vacation time. Accordingly, the increase in professional seniority may have increased the WLQ. Similar to this study finding, in another study that included academic staff, it was reported

that those who had 21 years and more professional seniority had a higher WLQ than others (Taşdemir Afşar 2015). In the literature, studies report that there is no statistical difference between professional seniority and WLQ, contrary to the result of the present study. Ayaz (2014) conducted a study with nurses, Başol et al. (2018) with disabled and elderly care personnel, Deniz et al. (2018) with healthcare personnel working in a private hospital and its affiliates, and Karadağ Öncel (2019) conducted another study with pediatric assistants and reported that the WLQ of the participants did not differ according to their professional seniority. These differences in the literature can be explained by the fact that the present study was conducted during the COVID-19 pandemic.

As a result of the study, the WLQ of the employees in secondary healthcare institutions was found to be low in the general dimension of the WLQ scale and the sub-dimension of management. It was reported in the study of Başol et al. (2018) that WLQ did not differ according to the unit worked, and it is not similar to the result of the present study. Again, unlike the present study, in another study conducted with young physicians, it was reported that there were no differences between the institution and the general WLQ, but physicians working in secondary healthcare institutions approached the sub-dimension of "continuous development and improvement opportunities" more positively (Türk et al. 2012). The fact that healthcare staff working in secondary healthcare institutions provide direct care to suspected or definite COVID-19 cases, and therefore, are always at risk of transmission explains the finding of the present study, which is not similar to the literature data.

In the present study, the WLQ of those who said that their workload increased because of the COVID-19 pandemic was found to be low. It was reported in another study conducted with nurses working in hospitals in China during the COVID-19 pandemic that participants with long working hours and heavy workloads had low WLQ (Niu et al. 2022). In support of the findings of the present study, in the study conducted by Kılıç and Keklik (2012) with healthcare employees, it was reported that employees who had intensive working hours had lower WLQ scores; and in the study conducted by Kaya (2011) with nurses, nurses working overtime had lower WLQ scores; and in the study conducted by Karadağ Öncel (2019) with pediatric assistants, it was reported that physicians with long working hours had negative effects on WLQ and lower WLQ scores. The healthcare industry is a labor-intensive field and the COVID-19 pandemic exacerbated this. This finding of the present study showed the necessity of a healthcare system prepared for public healthcare emergencies by adopting a proactive approach.

In the present study, the WLQ of those who wanted to quit their jobs during the COVID-19 pandemic was found

to be low in the overall WLQ scale and all sub-dimensions of the WLQ scale (commitment, effectiveness, development, atmosphere, and management). In support of the results of the present study, Şahin et al. (2021) reported that as WLQ increased, participants' willingness to quit their jobs decreased. It was observed in the literature that studies conducted with employees in different sectors reported results consistent with our study results (Huang et al. 2007; Demir 2011; Yıldız 2013; Altay and Turunç 2018; Bulgan et al. 2021). The results of the studies conducted by companies with their employees also support our study findings. Considering that employees spend a large part of the day at their workplaces, which increases in parallel with the increasing workload and working hours in healthcare employees during the COVID-19 pandemic, it is considered that steps to be taken to improve WLQ levels in all aspects will reduce the tendency of healthcare employees to quit their jobs. Another finding of the present study implies that the scores in the general dimension of the WLQ scale and all the sub-dimensions of the WLQ scale (commitment, effectiveness, development, atmosphere, and management) are low in the WLQ of those who do jobs outside the job description and can also explain the desire to leave jobs. In this context, the job descriptions of all healthcare employees and the jobs they perform should be evaluated again, and if necessary, the number of personnel should be increased (Karacabay et al. 2020).

As a result of the present study, the WLQ scores of those who have 10 years or more of professional seniority in the activity and atmosphere sub-dimension of the WLQ scale were found to be higher. In a study that was conducted with 328 healthcare personnel working in a public hospital, it was reported that employees with a working period of 21 years or more in the profession and institution perceived WLQ lower in the "working conditions at work" sub-dimension when compared to other participants, which is not similar to the results of the present study (Saygılı et al. 2016). This finding can be interpreted as knowing the requirements of the job and what is expected from the employee and conditions, e.g., working in agreement with other employees might increase with professional seniority.

The WLQ scores of the female participants were found to be low in the commitment sub-dimension of the WLQ scale in the study. In another study conducted with pediatricians, it was reported that the scores of female participants were higher in the WLQ scale, "work stress and time pressure" sub-dimension, which covers the issues of having adequate time to complete the job and ensuring the family-work balance (Üzüm et al. 2019). In the study conducted by Ayaz (2014) with nurse participants, it was reported that the scores of the "work conditions and support services" sub-dimension of the quality of work-life scale were higher

in male nurses. It was also seen that our results support the literature data and can be explained by social gender inequality.

According to the results of the present study, the WLQ scores of those who said that their workload increased because of the COVID-19 pandemic in the WLQ scale commitment and management sub-dimensions were low. Similar to the results of the present study, Karadağ Öncel (2019) conducted a study and reported that resident physicians who work 56 hours or more per week had a significantly lower "work career satisfaction" score, which is one of the sub-dimensions of WRL-QOL (Work-Related Quality of Life Scale) when compared to those with fewer working hours. These results were found to be compatible with the results of this study.

It was found in the study that WLQ increased as the scores of the burnout and desensitization sub-dimensions of the MBI-GF scale decreased and the scores of the competence sub-dimension increased. According to the results of a study that was conducted with 113 medical assistants in Belgium, it was reported that almost half of the participants had high levels of emotional burnout (Bragard et al. 2012). In the study conducted by Başol et al. (2018) with the disabled and elderly care personnel, it was found that as the burnout levels of the participants increased, their WLQ perceptions decreased. Similar to the results of the present study, in the study of Acar and Erkan (2018) conducted with hotel employees, a moderate and negative relationship was detected between burnout and desensitization, which are sub-dimensions of MBI-GF and WLQ. A moderate and positive relationship was detected between competence and WLQ, one of the sub-dimensions of MBI-GF. In another study that was conducted with physiotherapists, in parallel with the results of the present study, a significant and negative relationship was detected between burnout and desensitization and WLQ, and a significant and positive relationship between competence and WLQ was reported (Erturan et al. 2021).

According to the study results, it was found that as the MBI-GF scale burnout sub-dimension score decreased and the competence sub-dimension score increased, the WLQ atmosphere and management sub-dimension scores increased. It is seen that positive affectivity is related to factors such as the physical conditions of the workplace, the harmonious working status of the employees with their colleagues, the relations of the employees with their managers, and the participation of the employees in the decision-making processes in the organization. According to the results of a meta-analysis that examined 16 studies, it was found that poor working conditions, including increased workload and working hours, increased the burnout levels of nurses

(Galanis et al. 2021). The results of the present study support this finding.

As a result of the study, it was found that as the desensitization sub-dimension score of the MBI-GF scale decreased and the competency sub-dimension score increased, the commitment, effectiveness, and development scores of the sub-dimensions of the WLQ scale increased. Although desensitization occurs when employees display a disinterested, cold, and strict attitude toward the people they serve and the work they do (Dolgun 2010), competence is the condition of being able to overcome the problem faced and see oneself as sufficient (Yıldırım and Hacıhasanoğlu 2011). According to this, it is seen that negative affectivity affects the ability to take part in joint work with the people working together, the interestingness of the work for the employee, the quality level of the work performed in the unit, and the contribution of the employee to the enterprise. Considering the sub-dimensions of commitment, effectiveness, and development of the WLQ scale, it was seen that the study findings were consistent with the results reported by Macit et al. (2019).

Conducting the study as an online cross-sectional design was the strength of the study. The surveys to be sent to the participants in an electronic environment resulted in a participation restriction. This situation was overcome by sending the electronic form at different times over social media or other communication tools.

Conclusion

Positive associations were detected between WLQQ general dimension scores and professional seniority of ≥10 years and negative associations with the desire to work in a secondary healthcare institution, increased workload, working outside the job description, and quitting the job. There was a positive association between the WLQQ general dimension scores and the competence of the MBI-GF sub-dimensions, and a significant and negative association between burnout and desensitization. A safe working environment against occupational risks (physical, chemical, biological, psychosocial, etc.) should be provided in all health institutions. The number of health professionals should be increased as a precaution against the increasing workload. All health professionals should be employed in jobs that comply with their job description. Policies to eliminate gender inequalities should be implemented. In order to raise the WLQ initiatives to improve the working conditions of healthcare employees and reduce psychosocial risks must be planned and implemented. The healthcare system must be strengthened and a proactive attitude must be adopted and prepared for public health emergencies.

Author contributions Conceptualization: Yeliz MERCAN, Nüket PANCAR, Aylin CAN, Mert Can DOĞRU; Data curation: Yeliz MERCAN, Nüket PANCAR; Formal Analysis: Yeliz MERCAN, Nüket PANCAR; Investigation: Yeliz MERCAN, Nüket PANCAR, Aylin CAN, Mert Can DOĞRU; Methodology: Yeliz MERCAN, Nüket PANCAR; Resources: Yeliz MERCAN, Nüket PANCAR, Aylin CAN, Mert Can DOĞRU; Supervision: Yeliz MERCAN, Nüket PANCAR, Aylin CAN, Mert Can DOĞRU; Visualization: Yeliz MERCAN, Nüket PANCAR, Aylin CAN, Mert Can DOĞRU]; Writing – original draft preparation: Yeliz MERCAN, Nüket PAN-CAR, Aylin CAN, Mert Can DOĞRU; Writing – review & editing: Yeliz MERCAN, Nüket PANCAR, Aylin CAN, Mert Can DOĞRU

Declarations

To conduct this research, ethics approval was obtained from the Ethics Committee of the Institute of Health Sciences at Kirklareli University (PR0297R0-15/02/2021).

Ethics approval 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. To conduct this research, ethics approval was obtained from the Ethics Committee of the Institute of Health Sciences at Kirklareli University (PR0297R0-15/02.2021).

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

Competing interests The authors have no competing interests to declare that are relevant to the content of this article.

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