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Effects of Working Conditions of the Operating Room Personnel on Their Quality of Life

Ameliyathane Çalışanlarında Çalışma Koşullarının Yaşam Kalitesine Etkisi

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Abstract

Objective: The concerns of healthcare workers about their working conditions and working environment affect their Quality of Life (QOL). Operating room environment requires working attentively and at a high pace. Our objective in this study was to examine the effects of working conditions of an operating room on the QoL of the operating room personnel.

Methods: Healthcare workers working in the operating room of Samsun Education and Research Hospital were included in the study. The "Quality of Work-Life Scale" developed by Aydın et al., was used to determine the level of work-life quality of healthcare workers. A 21-question survey evaluating the demographic and occupational characteristics of the employees was also administered.

Results: One hundred and two personnel in the operating room were included in our study. Total mean score of the "QoL Scale" of healthcare workers was 76.63±10.55. A negative relationship was found between the age of healthcare workers and job stress and time pressure. Working time in the operating room was negatively associated with job discrimination and social integration into the organization. The risk of occupational accidents and diseases was positively associated with physical conditions in the workplace, work stress and time pressure. Discrimination in the workplace and social integration into the organization displayed a positive association with work stress and time pressure.

Conclusion: Increasing work experience along with increasing age of the healthcare workers were considered to reduce work stress and time pressure. It was also found that the time spent in the operating room-mitigated workplace discrimination and improved social integration into the organization. As a result, as the factors involved in the evaluation of quality of work-life, which are multidimensionally interrelated, the situations complicating the work conditions physically and psychologically increase work stress further and negatively influence the QoL at work.

Keywords: Quality of Work-Life, Quality of Life, operating room personnel



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Öz

Amaç: Sağlık çalışanlarının çalışma koşulları ve çalışma ortamı ile ilgili kaygıları, 'Quality of Life' yaşam kalitelerini (QoL) etkilemektedir. Ameliyathane ortamı dikkatli ve yüksek tempoda çalışmayı gerektirir. Çalışmamızın amacı; ameliyathane çalışma koşullarının, ameliyathane personelinin QoL'ye etkisini incelemektir.

Yöntem: Çalışmaya Samsun Eğitim ve Araştırma Hastanesi ameliyathanesinde çalışan sağlık çalışanları dahil edildi. Sağlık çalışanlarının İş-Yaşam Kalitesi düzeylerini belirlemek için Aydın ve ark. tarafından geliştirilen "İş-Yaşam Kalitesi Ölçeği" kullanılmıştır. Ayrıca çalışanların demografik ve mesleki özelliklerini değerlendiren 21 soruluk bir anket uygulanmıştır.

Bulgular: Çalışmamıza yüz iki ameliyathane personeli dahil edildi. Sağlık çalışanlarının "QOL Ölçeği" toplam puan ortalaması 76.63 ± 10.55 idi. Sağlık çalışanlarının yaşı ile iş stresi ve zaman baskısı arasında negatif bir ilişki bulunmuştur. Ameliyathanede çalışma süresi, iş ayrımcılığı ve organizasyona sosyal entegrasyon ile olumsuz olarak ilişkilendirilmiştir. İş kazası ve meslek hastalığı riski, işyerindeki fiziksel koşullar, iş stresi ve zaman baskısı ile pozitif ilişkili bulunmuştur. İşyerinde ayrımcılık ve örgüte sosyal entegrasyon, iş stresi ve zaman baskısı ile pozitif ilişki göstermiştir.

Sonuç: Sağlık çalışanlarının artan yaşı ile birlikte artan iş deneyiminin iş stresini ve zaman baskısını azalttığı düşünülmüştür. Ayrıca ameliyathanede geçirilen sürenin işyeri ayrımcılığını azalttığı ve kuruma sosyal entegrasyonu iyileştirdiği belirlendi. Sonuç olarak, İş-Yaşam Kalitesi'nin değerlendirilmesinde yer alan faktörler birbiriyle çok boyutlu olarak ilişkili olduğundan, çalışma koşullarını fiziksel ve psikolojik olarak zorlaştıran durumlar iş stresini daha da artırmakta ve işyerindeki QoL'yi olumsuz yönde etkilemektedir.

Anahtar Kelimeler: İş-Yaşam Kalitesi, Yaşam Kalitesi, ameliyathane personeli

Introduction

In many studies on work and stress; workplace has emphasized today as an important cause of stress and illness for the personnel⁽¹⁾. Today, many people seem to be working longer and much harder than ever before, and it is becoming increasingly difficult to achieve the desired work-life balance. It was mentioned in a report by the International Labor Organization, that unfavorable psychological problems in the workplace, such as burnout, become an increasing problem on a global scale, recently⁽²⁾.

Although the concept of Quality of Life (QoL) is still controversial, contentment with life is used synonymously with life satisfaction and happiness⁽³⁾. People's concerns about working conditions and work environment determine their QOL⁽⁴⁾. As the people are unable to fulfill the requirements of their jobs due to overwork and burnout may develop as an emotional, mental and physical reactions. Healthcare professionals' excessive workload, poor communication with colleagues, caring for severely ill patients at the terminal stage, irregular nature of work and working against the clock, regular shifts, sleep disturbances, dealing with patients' relatives and economic problems cause work-related stress and tension^(5,6). Improving the QOL and working conditions of health workers and eliminating their problems would enable healthcare services to be more efficient⁽⁷⁾.

Workload can change rapidly in many branches of healthcare services. This is particularly the case for the operating room, involving high-risk and high-paced working

conditions, where surgeons, anesthetists, and nurses work together as a team^(8,9). The perception that the work is "overwhelming" was associated with the burnout experienced by the surgeons^(10,11). The clinical workload of an individual inevitably affects personal performance as well as the workload and performance of the entire team. Coronavirus disease-2019 pandemic caused increased workload and stress for health professionals involved in the care of such patients⁽¹²⁾. Operating room; is an environment with a very active patient circulation, complicated patients requiring intensive attention and monitoring, various life-saving high-technology equipment adverse indoor conditions (heat, humidity, sound, lighting, ventilation) triggering stress, and where teamwork is essential. Operating room workers constitute a team having indefinite working hours and shift systems, suffer from sleep disorders. For this reason, our study aimed to examine the effects of intensive working conditions of operating room workers on their QOL.

Materials and Methods

After obtaining the ethics committee approval, physicians, nurses and technicians working in the operating room unit of Samsun Education and Research Hospital were included in the study. Employees who refused to participate in the study were excluded. Since our study was single-center, 102 employees could be included. The participants were asked to complete the "Demographic Data Collection Form" and "QOL Scale for Healthcare Professionals Form". After obtaining voluntary consent of the participants, a questionnaire was

applied through one-on-one interview method. The average interview time was 10-15 minutes. The "Quality of Work-Life Scale developed by Aydın et al.⁽¹³⁾ was used to determine the participants' levels of working life quality.

Demographic Data Collection Form: It consisted of 21 questions including socio-demographic characteristics such as age, gender, occupation, marital status, alcohol-smoking use, presence of additional disease, monthly income, job satisfaction, hobbies as well as professional characteristics such as total working years, working years in the unit, weekly working hours, shift hours, having day off after night shift, having annual leave and having any chance for congress participation.

Health Workers' Quality of Work-Life Scale: This is a scale developed to evaluate healthcare workers' quality of work-life, where its validity and reliability were tested by Aydın et al.⁽¹³⁾ in 2011. The Work QOL Scale evaluates 6 dimensions and consists of 27 questions, focusing on various factors including factor 1 (6 items): Occupational accident-occupational disease risk and physical working conditions in the workplace, factor 2 (5 items): Discrimination in the workplace, factor 3 (5 items): Continuous advancement and improvement opportunities, factor 4 (5 items): Social integration to the organization, factor 5 (3 items): Job stress and time pressure, and factor 6 (3 items): Corporate codes. A 5-point Likert scale was used to measure the degree of agreement of the employees to each statement in the survey. Employees' agreement with the statements was evaluated as 1="strongly disagree", 2="disagree", 3="undecided", 4="agree" and 5="strongly agree". Questionnaire form was scored. Reverse scoring was implemented for negative statements. The lowest score that can be obtained from the scale was 20 and the highest score was 100. Individuals' quality of work-life increases as the total scores obtained from the scale increases.

Statistical Analysis

Statistical Package for the Social Sciences 24 (IBM®) was used for the statistical analysis of the data. Categorical measurements were summarized as numbers (n) and percentages (%), and numerical measurements as mean and standard deviation (median and minimum-maximum values where necessary). The Shapiro-Wilk test was used to evaluate the conformity of quantitative data to a normal distribution. Mann-Whitney U and one way ANOVA tests were used to compare the measurements of the survey. The relationship between variables was evaluated with

cross tables, frequencies and chi-square test parameters. Statistical significance was taken as 0.05 in all tests.

Results

A total of 102 operating room employees, including 43 physicians, 38 nurses, and 21 technicians, were enrolled in the study. Mean age of the participants was 42.58 ± 0.6 years, between the range of 25-62 years. Mean age of the physicians was 43.98 ± 6.27 years, of the technicians 42.66 ± 6.71 years, and of the nurses 39.57 ± 2.44 years (Table 1). Female employees constituted 53% of the participants. As for marital status, 38.2% of the physicians, 31.4% of the technicians and 20.6% of the nurses were married. Nurses and technicians in the study had more children. In the study, 13.7% of the doctors, 10.8% of the technicians and 2.9% of the nurses were smokers, while 13.7% of the doctors, 3.9% of the technicians and 2.9% of the nurses reported the using alcohol. Comorbidities were determined in 9.8% of the doctors and technicians and 5.9% of the nurses. The monthly income of the healthcare workers was approximately 7200-14400 TL (Table 2).

Mean work experience was 19.30 ± 0.9 years for doctors, 17.86 ± 0.8 years for nurses and 20.24 ± 1.0 years for technicians. Mean years of working in the unit was 6.93 ± 0.8 years for doctors, 7.14 ± 1.6 years for nurses and 12.03 ± 1.4 years for technicians. Physicians' weekly working hours were determined to be more, with respect to the technicians and nurses, but this was not a significant difference. Nurses' total hours of night shift was higher when compared to with physicians and technicians, without any significant difference (Table 1).

Annual leave was reported by 31.4% of the physicians, 15.7% of the technicians and 14.7% of the nurses took, while post-duty leave was by 21.6% of the physicians, 32.4% of the technicians and 20.6% of the nurses. It was also determined that only 15.7% of the physicians and 13.7% of the technicians reported to a night shift on call, whereas the nurses did not at all. Job contentment was noted by 33.3% of the physicians, 27.5% of the technicians and 17.6% of the nurses. Furthermore, the rate of making an appeal to change their current units was 37.3% for the physicians, 30.4% for the technicians and 20.6% for the nurses, where the reasons for that were reported as various reasons other than income increment and eligibility in 32.4% for the physicians, 26.5% for the technicians, and 20.6% for the nurses. No significant difference was determined between occupational groups in terms of the reasons for their application for a unit change ($p > 0.05$) (Table 2).

Table 1. Descriptive characteristics of healthcare workers

		N	Mean	Min-max	p
Age (years)	Physicians	43	43.98±6.27	31-62	0.022*
	Technicians	38	42.66±6.71	25-58	
	Nurses	21	39.57±2.44	37-45	
	Total	102	42.58±6.06	25-62	
Number of children	Physicians	43	1.70±0.77	0-3	0.408
	Technicians	38	1.89±0.63	0-3	
	Nurses	21	1.86±0.35	1-2	
	Total	102	1.80±0.65	0-3	
Total period of work-life (years)	Physicians	43	19.30±6.54	7-34	0.346
	Technicians	38	20.24±6.31	6-32	
	Nurses	21	17.86±3.69	15-26	
	Total	102	19.35±5.98	6-34	
Total period of work-life in the unit (years)	Physicians	43	6.93±5.56	1-25	0.006*
	Technicians	38	12.03±9.02	1-29	
	Nurses	21	7.14±7.77	1-22	
	Total	102	8.87±7.78	1-29	
Weekly working hours (h)	Physicians	43	44.79±6.16	40-60	0.354
	Technicians	38	42.42±11.63	8-96	
	Nurses	21	42.29±3.71	40-48	
	Total	102	43.39±8.34	8-96	
Total hours of night shift (h)	Physicians	43	53.43±21.61	0-96	0.310
	Technicians	38	54.81±7.93	40-72	
	Nurses	21	65.14±53.74	24-192	
	Total	102	56.62±29.10	0-192	

*p<0.05 significant.
Min-max: Minimum-maximum

Congress participation was reported by 13.7% of the physicians, 3.9% of the technicians, and 2.9% of the nurses, indicating a significant difference between the occupation groups ($p<0.05$). Additionally, 32.4% of the doctors, 19.6% of the technicians and 11.8% of the nurses said that they had hobbies (Table 2).

The distribution of the mean scores of the sub-dimensions of the healthcare workers' quality of work life scale is displayed in Table 3. Mean score of the "QOL Scale" of healthcare workers was 76.63 ± 10.55 . It was observed that technicians' "QOL Scale" mean total score (77.89 ± 9.48) was higher than that of physicians' (74.98 ± 12.21) and nurses' (77.71 ± 8.51), but there was no significant difference between these occupation groups ($p>0.05$). The highest average score in the table was determined for participants' continuous development and improvement opportunities subscale (17.24 ± 2.87), followed

by social integration to the organization subscale (15.04 ± 3.11) and then workplace discrimination subscale (13.39 ± 4.13). However, the lowest score, was obtained for the job stress and time pressure subscale (9.22 ± 2.28) and corporate codes subscale (9.43 ± 2.15). It was also determined in the study that technicians' "QOL Scale" subscale scores showed the highest mean values in all subscales, except for the "Continuous Advancement and Improvement Opportunities" subscale. It was determined that the mean score of the "Continuous Advancement and Improvement Opportunities" subscale was higher among physicians. The difference between the subscale scores of the "QOL Scale" concerning occupation groups was significant for "Continuous Development and Improvement Opportunities", "Social Integration to the Organization" and "Work Stress and Time Pressure" subscales ($p<0.05$), whereas insignificant for other subscales and for the total score of the scale ($p>0.05$) (Table 3).

Table 2. Data on sociodemographic characteristics and occupational status of healthcare professionals

		Physician	Technician	Nurse	Total	p
Gender (n, %)	Female	11 (10.8%)	22 (21.6%)	21 (20.6%)	54 (52.9%)	0.001*
	Male	32 (31.4%)	16 (15.7%)	0 (0.0%)	48 (47.1%)	
Marital status (n, %)	Married	39 (38.2%)	32 (31.4%)	21 (20.6%)	92 (90.2%)	0.210
	Single	1 (1.0%)	4 (3.9%)	0 (0.0%)	5 (4.9%)	
	Widowed	3 (2.9%)	2 (2.0%)	0 (0.0%)	5 (4.9%)	
Smoking (n, %)	Yes	14 (13.7%)	11 (10.8%)	3 (2.9%)	28 (27.5%)	0.296
	No	29 (28.4%)	27 (26.5%)	18 (17.6%)	74 (72.5%)	
Alcohol use (n, %)	Yes	13 (12.7%)	4 (3.9%)	3 (2.9%)	20 (19.6%)	0.066
	No	30 (29.4%)	34 (33.3%)	18 (17.6%)	82 (80.4%)	
Comorbidity (n, %)	Yes	10 (9.8%)	10 (9.8%)	6 (5.9%)	26 (25.5%)	0.891
	No	33 (32.4%)	28 (27.5%)	15 (14.7%)	76 (74.5%)	
Monthly income (n, %)	<7200 TL	0 (0.0%)	12 (11.8%)	3 (2.9%)	15(14.7%)	0.001*
	7200-14400	19 (18.6%)	25 (24.5%)	18 (17.6%)	62 (60.8%)	
	14400-21600	15 (14.7%)	1 (1.0%)	0 (0.0%)	16 (15.7%)	
	>21600	9 (8.8%)	0 (0.0%)	0 (0.0%)	9 (8.8%)	
Annual leave (n, %)	Yes	32 (31.4%)	16 (15.7%)	15 (14.7%)	63 (61.8%)	0.007*
	No	11 (10.8%)	22 (21.6%)	6 (5.9%)	39 (38.2%)	
Post duty leave (n, %)	Yes	22 (21.6%)	33 (32.4%)	21(20.6%)	76 (74.6%)	0.001*
	No	21(20.6%)	5 (4.9%)	0 (0.0%)	26 (25.4%)	
Night shift on call (n, %)	Yes	16 (15.7%)	14 (13.7%)	0 (0.0%)	30 (29.4%)	0.003*
	No	27 (26.5%)	24 (23.5%)	21 (20.6%)	72 (70.6%)	
Job contentment (n, %)	Yes	34 (33.3%)	28 (27.5%)	18 (17.6%)	80 (78.4%)	0.556
	No	9 (8.8%)	10 (9.8%)	3 (2.9%)	22 (21.6%)	
Appealing for unit change (n, %)	Yes	38 (37.3%)	31 (30.4%)	21(20.6%)	90 (88.2%)	0.110
	No	5 (4.9%)	7 (9.8%)	0 (0.0%)	12 (11.8%)	
Reason for appealing for unit change (n, %)	Income increment	3 (2.9%)	1 (1.0%)	0 (0.0%)	4 (3.9%)	0.058
	Eligibility	7 (6.9%)	10 (9.8%)	0 (0.0%)	17 (16.7%)	
	Others	33 (32.4%)	27 (26.5%)	21(20.6%)	81 (79.4%)	
Congress participation (n, %)	Yes	14 (13.7%)	4 (3.9%)	3 3 (2.9%)	21 (20.6%)	0.036*
	No	29 (28.4%)	34 (33.3%)	18 (17.6%)	81 (79.4%)	
Having hobbies (n, %)	Yes	33 (32.4%)	20 (19.6%)	12 (11.8%)	65 (63.7%)	0.062
	No	10 (9.8%)	18 (17.6%)	9 (8.8%)	37 (36.3%)	

*p<0.05 significant.

In Table 4, participants' total scale and subscale score values are compared with respect to individual and demographic characteristics, and analyzed about whether there was a statistical difference not.

There was an inversely significant relationship between job stress and time pressure subscale of all participants of all ages [Spearman r(100)=-0.265, p=0.007]. Job stress and time pressure were perceived less commonly with increasing age. A negative correlation was found between total work time in the unit and discrimination at work [Spearman r(100)=-

0.322, p=0.001] and social integration to the organization [Spearman r(100)=-0.292, p=0.003]. Time spent in the unit reduced discrimination at work and increased social integration into the organization. It was seen that the variable of working time in the institution caused a positive and significant difference in discrimination at work, social integration to the organization and total scale evaluation.

There was a positive correlation between work stress and time pressure and the risks of occupational accidents, occupational diseases and physical working conditions

Table 3. Distribution of mean scores of subscales of healthcare professionals' Quality of Life Scale

		N	Mean	Min-max	p
Risks of occupational accidents, occupational diseases and physical working conditions	Physicians	43	11.84±3.28	6-21	0.440
	Technicians	38	12.68±3.36	7-21	
	Nurses	21	12.57±2.31	9-16	
	Total	102	12.30±3.14	6-21	
Discrimination in the workplaces	Physicians	43	13.42±4.63	5-24	0.778
	Technicians	38	13.66±3.57	5-20	
	Nurses	21	12.86±4.15	7-19	
	Total	102	13.39±4.13	5-24	
Continuous advancement and improvement opportunities	Physicians	43	18.07±3.12	12-24	0.031*
	Technicians	38	16.42±2.94	10-21	
	Nurses	21	17.00±1.55	15-19	
	Total	102	17.24±2.87	10-24	
Social integration into an organization	Physicians	43	14.13±3.75	6-22	0.029*
	Technicians	38	15.94±2.41	10-22	
	Nurses	21	15.28±2.31	12-18	
	Total	102	15.04±3.11	6-22	
Work stress and time pressure	Physicians	43	8.14±2.65	3-14	0.001*
	Technicians	38	9.61±1.67	7-13	
	Nurses	21	10.71±1.06	9-12	
	Total	102	9.22±2.28	3-14	
Corporate codes	Physicians	43	9.37±2.38	3-13	0.860
	Technicians	38	9.58±2.10	6-13	
	Nurses	21	9.29±1.79	6-12	
	Total	102	9.43±2.15	3-13	
Total score of the scale	Physicians	43	74.98±12.21	46-94	0.405
	Technicians	38	77.89±9.48	59-97	
	Nurses	21	77.71±8.51	67-7	
	Total	102	76.63±10.55	46-97	

*p<0,05 significant.
Min-max: Minimum-maximum

[Spearman $r(100)=0.354$, $p<0.001$]. Workplace discrimination and social integration to the organization [Spearman $r(100)=0.495$] were positively associated with work stress and time pressure [Spearman $r(100)=0.258$, $p<0.001$]. Additionally, there was a positive correlation between work stress and time pressure and discrimination at work [Spearman $r(100)=0.258$, $p<0.001$] and social integration to the organization [Spearman $r(100)=0.393$, $p<0.001$].

There was a negative correlation between social integration into the organization and working time in the unit. A positive correlation was determined between opportunities for continuous advancement and improvement and organizational acts [Spearman $r(100)=0.372$, 0.302 , $p=0.002$]

and social integration to the organization [Spearman $r(100)=0.372$, $p<0.001$] (Table 4).

In the analysis of the physician group, there was a negative association between corporate codes, age, and total working time. Again, a negative relationship was found between the risk of work occupational accidents, occupational diseases and work stress as well as time pressure.

With for technicians, opportunities for continuous development and improvement showed a positive correlation with social integration into the organization and corporate codes. Nurse group analysis displayed a negative relation between working time in the unit, discrimination at work and social integration into the organization.

Table 4. Comparison of the total scale and subscale of the quality of life scale of all participants with demographic data (Spearman's correlation)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Age	(1)	1											
Total period of work-life (years)	(2)	0.899**	1										
Total period of work-life in the unit (years)	(3)	0.501**	0.522**	1									
Weekly working hours	(4)	-0.058	-0.135	-0.094	1								
Total hours on duty	(5)	-0.017	-0.118	-0.220*	0.226*	1							
Risk of occupational accidents, occupational diseases and physical working conditions	(6)	-0.039	-0.017	-0.081	-0.232*	-0.046	1						
Discrimination at the workplaces	(7)	-0.078	-0.073	-0.322**	0.078	0.209*	0.189	1					
Opportunities for continuous advancement and improvement	(8)	0.04	0.014	-0.222*	0.081	-0.046	0.031	0.143	1				
Social integration into an organization	(9)	-0.15	-0.107	-0.292**	-0.137	0.156	0.197*	0.495**	0.372**	1			
Work stress and time pressure	(10)	-0.265**	-0.121	-0.161	-0.239*	-0.209*	0.354**	0.258**	0.05	0.393**	1		
Corporate codes	(11)	0.191	0.191	-0.173	-0.200*	0.093	-0.022	0.211*	0.302**	0.372**	0.1	1	
Scale Total	(12)	-0.075	-0.049	-0.369**	-0.135	0.078	0.495**	0.708**	0.499**	0.786**	0.527**	0.497**	1

*p<0.05, **p<0.01.

The risk of occupational accidents, occupational diseases and physical conditions at work was positively associated with work stress and time pressure. Workplace discrimination and social integration to the organization were positively associated with job stress and time pressure. Continuous development and improvement opportunities exhibited a positive correlation with social integration into the organization and corporate codes.

Discussion

Our study aimed to determine the quality level of work-life of the operating room staff and to examine the effects of individual-demographic characteristics on that. Our results showed that the quality of work-life was generally perceived

as good (76.63±10.55) by the healthcare professionals participated in the study. In the study by Saygılı et al.⁽¹⁴⁾, the level of QOL of healthcare workers was specified as good. The median level of QOL was reported as 60.5 of 174 physicians participating in the study by Turk et al.⁽¹⁵⁾.

The lowest score of the participants was calculated for the "work stress and time pressure" subscales of the quality of work life scale. Mete et al.⁽¹⁶⁾ evaluated the relationship between occupational burnout and quality of work life in their study with 119 physicians in 2019. "Job stress and time pressure" factors were held responsible for explaining 35.4% of the change in the burnout variable. Stress and time pressure at the workplace were observed as the main factors inciting burnout. In our study, a negative correlation was

found between age, work stress and time pressure. Saygılı et al.⁽¹⁴⁾ determined in their study that the age variable made a significant difference only on the "work stress and time pressure" subscales of the quality of work-life. We consider that employees' work experience increasing along with increasing age may have reduced work stress and time pressure.

The "corporate codes" subscale score of our participants were also calculated to be lower than the other subscales. Corporate codes comprise topics such as employees' personal rights, how to protect these rights, tolerating differences between individuals, allowing freedom of speech and ensuring legal equality in all work-related matters. In our study; a positive correlation was observed between physicians' age and total working years and the "corporate codes" subscale. Saygılı et al.⁽¹⁴⁾ reported a lower score for the "organizational acts" subscale, as 8.76 ± 2.33 . The "corporate codes" subscale score of our participants were also calculated lower with respect to other subscales. Çatak and Bahçecik⁽¹⁷⁾ found total working time both in the profession and in the institution as effective variables involved in the level of work-life quality. Saygılı et al.⁽¹⁴⁾ emphasized that working in an institution for 21 years or older had a significant relationship with social integration to the organization. Mete et al.⁽¹⁶⁾ examined the correlation between the subscales and stated that emotional burnout and depersonalization increased as the risk of occupational accident, occupational disease, discrimination at work, stress and time pressure increased. In our study too, a positive correlation was determined between work stress and time pressure and the risk of occupational accident, occupational disease and physical conditions at the workplace.

When evaluated according to occupation, the quality life scale score was observed to be the highest in the anesthesia and operating room technician groups, followed by the nurses. The physicians had lower total scale scores compared to both occupational groups. Similar to our study, Ergen et al.⁽¹⁸⁾ reported higher scores for the nurses than the physicians ($p=0.023$). Hyman et al.⁽¹⁹⁾ stated that, unlike nurses and technicians, depersonalization and emotional burnout levels were higher in physicians, indicating a higher risk of burnout for them. Saygılı et al.⁽¹⁴⁾ indicated a statistically significant difference in all subscale scores of work-life quality scale as well as the total scale score with respect to the occupation variable, except for the subscale of "risk of occupational accident-occupational disease and working conditions at the workplace". Differently, they also reported that the level of work-life quality was better for physicians with respect to that of nurses and the other healthcare personnel⁽¹⁴⁾.

When the correlation of quality-of-life subscales was examined; a positive correlation was found between opportunities for continuous development and improvement, social integration to the organization, and corporate codes. Risks of occupational accidents, occupational diseases and adverse physical conditions as well as discrimination at work and social integration problems with the organization increase work stress and time pressure. In our study, the mean score of the "Continuous Advancement and Improvement Opportunities" subscale was higher in physicians. Similarly, Türk et al.⁽¹⁵⁾ emphasized similar results. Continuous advancement and improvement opportunities increase social integration into the organization and they are positively associated with transparency in wages, workplace safety and allowance for association or union membership.

In a study conducted by Barfield in Australia in 2002, 1,032 healthcare professionals consisting of physicians and nurses were asked how their working conditions or their quality work-life could be improved. Better wages, more convenient working hours, better management, better recognition were indicated, respectively⁽²⁰⁾. In a survey implemented by 17,000 nurses in Canada; following a program workplace maximizing employees' development and improvement, salubrious work climate, the availability of the tools and resources required for personnel performance led the nurses were more committed to organizational acts. Increased productivity and motivation were achieved in the work environments with employees having high commitment to organizational goals and job satisfaction⁽²¹⁾. The clinical workload of member of staff will eventually affect her/his own work performance and the workload and performance of the entire team. Appropriate modifications should be implemented regarding the number of staff, workflow management, or relevant technologies to reduce workload redundancy, to maintain a safe and effective work environment for operating room teams⁽²²⁾. We consider that the QOL of healthcares workers will increase along with improving the quality environment, reducing excessive workload, reorganizing long working hours, and managing workplace issues regarding staff relations and task sharing.

Study Limitations

The limitations of our study are that it is single-centered and the limited number of participants. Similar studies could be conducted with multiple, multiple-multicenter and more participants.

Conclusion

In conclusion; the factors used for evaluating the quality of work-life are multidimensionally interrelated, and the circumstances complicating working conditions, both physically and psychologically, have a potentiating effect on work stress and an adverse effect on the quality of work-life.

Ethics

Ethics Committee Approval: The study were approved by the University of Health Sciences Turkey, Samsun Education and Research Hospital of Local Ethics Committee (protocol number: GOKA/2020/10/04, date: 01.06.2020).

Informed Consent: Consent form was filled out by all participants.

Peer-review: Externally peer-reviewed.

Authorship Contributions

Concept: N.E.G., T.K.Y., Design: N.E.G., T.K.Y., Data Collection or Processing: N.E.G., Analysis or Interpretation: N.E.G., Literature Search: N.E.G., T.K.Y., Writing: T.K.Y.

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