

## THE RELATIONSHIP BETWEEN ERGONOMICS LEVEL, JOB AND LIFE SATISFACTION OF HEALTHCARE WORKERS IN TURKEY

Seçil ERGİN DOĞAN<sup>1\*</sup>, Yasemin ALTINBAŞ<sup>2</sup>

<sup>1</sup> Inonu University, Health Sciences Institute, Fundamentals of Nursing Department

ORCID No: <http://orcid.org/0000-0002-5463-2818>

<sup>2</sup> Adıyaman University, Faculty of Health Sciences, Surgical Nursing Department

ORCID No: <http://orcid.org/0000-0002-0456-3236>

### Keywords

*Ergonomics*  
*Healthcare workers*  
*Job satisfaction*  
*Life satisfaction*

### Abstract

*Risks in work environments are determinants of employees' psychosocial conditions. An ergonomically arranged work environment increases the motivation of employees and positively affects their productivity. In order for healthcare workers to provide quality service, they must be physically, environmentally, socially and cognitively healthy. This study aimed to examine the relationship between workplace ergonomics, job and life satisfaction of healthcare workers in Turkey. This cross-sectional, descriptive and correlational study's sample consisted of 422 healthcare workers. For this research, the Sociodemographic Information Form, Ergonomics Scale, Minnesota Job Satisfaction Scale and Life Satisfaction Scale were used as data collection tools. Exactly 48.1% of the healthcare workers were between the ages of 26–35, 64.2% were women, and 41.2% were nurses. The mean of Ergonomics Scale, the Job Satisfaction Scale and Life Satisfaction Scale scores were  $2.85 \pm 0.65$ ,  $2.83 \pm 0.76$  and  $2.33 \pm 0.97$ . A Positive, strong relationship was found between the ergonomics level, job and life satisfaction. The ergonomics level affected job satisfaction, but did not affect life satisfaction. This study has revealed that changes can occur in the work and non-work lives of healthcare workers by controlling the ergonomic risk factors in the work environment.*

## TÜRKİYE'DEKİ SAĞLIK ÇALIŞANLARININ ERGONOMİ DÜZEYİ, İŞ VE YAŞAM DOYUMU ARASINDAKİ İLİŞKİ

### Anahtar Kelimeler

*Ergonomi*  
*Sağlık çalışanları*  
*İş doyumunu*  
*Yaşam doyumunu*

### Öz

*Çalışma ortamlarındaki riskler çalışanların psikososyal durumlarının belirleyicileridir. Ergonomik olarak düzenlenmiş bir çalışma ortamı çalışanların motivasyonunu artırır ve verimliliklerini olumlu yönde etkiler. Sağlık çalışanlarının kaliteli hizmet sunabilmesi için fiziksel, çevresel, sosyal ve bilişsel açıdan sağlıklı olmaları gerekmektedir. Bu çalışma, Türkiye'deki sağlık çalışanlarının işyeri ergonomisi ile iş ve yaşam doyumunu arasındaki ilişkinin incelenmesini amaçlamıştır. Kesitsel, tanımlayıcı ve korelasyonel nitelikteki bu çalışmanın örneklemini 422 sağlık çalışanı oluşturdu. Bu araştırmada veri toplama aracı olarak Sosyodemografik Bilgi Formu, Ergonomi Ölçeği, Minnesota İş Doyumu Ölçeği ve Yaşam Doyumu Ölçeği kullanılmıştır. Sağlık çalışanlarının tam olarak %48.1'i 26-35 yaş aralığında, %64.2'si kadın, %41.2'si hemşire idi. Ergonomi Ölçeği, İş Doyumu Ölçeği ve Yaşam Doyumu Ölçeği puanlarının ortalamaları  $2.85 \pm 0.65$ ,  $2.83 \pm 0.76$  ve  $2.33 \pm 0.97$  olarak belirlendi. Ergonomi düzeyi ile iş ve yaşam doyumunu arasında pozitif yönde güçlü bir ilişki bulunmuştur. Ergonomi düzeyi iş doyumunu etkilemiş ancak yaşam doyumunu etkilememiştir. Bu çalışma, çalışma ortamındaki ergonomik risk faktörlerinin kontrol altına alınmasıyla sağlık çalışanlarının iş ve iş dışı yaşamlarında değişiklikler meydana gelebileceğini ortaya koymuştur.*

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\* Corresponding author e-mail: [ergindogansecil@gmail.com](mailto:ergindogansecil@gmail.com)

## 1. Introduction

Ergonomics is a human-centered discipline that takes a holistic approach to the work environment and job design, taking into account physical, environmental, social, cognitive, and organizational factors (Karwowski, 2005). Ergonomics is an important element in the service sector and in other sectors, and when ergonomic risks in health institutions are not controlled, healthcare workers become physically and mentally tired, their productivity and quality of patient care decrease (Neto & Amaral, 2020) and the number of work-related injuries increases (Shi et al., 2020). At the same time, poor ergonomics can cause a stressful work environment and the health of healthcare workers to deteriorate, adversely affect their family and social lives, and decrease their overall life satisfaction (LS) (Koinis et al., 2015). An ergonomic work environment increases employees' motivation and positively affects their productivity. In addition, an ergonomic work environment contributes to the protection of employees' health by ensuring a safe work environment and reducing the prevalence of occupational diseases (Bunpot & Klangduen, 2019).

Similarly, employee motivation and job satisfaction (JS) are associated with an ergonomic work environment, with ergonomically arranged work environments positively affecting the JS of healthcare workers (Kabbash et al., 2020). Locke defined JS as "a positive emotional state or pleasure mood resulting from the evaluation of one's job" (Locke, 1976). JS determines institutional performance by affecting employee performance (Hotchkiss et al., 2015). LS, on the other hand, is a subjective evaluation of one's happiness, is multidimensional, and encompasses multiple aspects of life (Chen et al., 2017). Factors such as risks in the working environment and the employee's personal characteristics can also affect LS (Jaworski et al., 2020).

In addition to risks in the working environment, an employee's psychosocial condition contributes to their JS and LS and burnout, job dissatisfaction, and life dissatisfaction can occur as a result of psychosocial stress experienced in the working environment (Ou et al., 2021). In this respect, JS and LS are a synthesis of an individual's professional and social lives (Ou et al., 2021). Moreover, LS can be improved through high JS, which can be promoted by controlling risks in the working environment (Chen et al., 2017). Thus, healthcare workers' motivation, performance, productivity, and JS and LS increase, their personal and work-related stresses are reduced, and quality care services are provided in an ergonomic working environment (Hotchkiss et al., 2015).

This study aims to determine whether there is a

relationship between the level of ergonomics, job and life satisfaction of health workers.

## 2. Scientific Literature Review

Studies have examined the workplace ergonomics level (Abdollahi et al., 2020; Dixon et al., 2024; Saad & Ebraheem, 2019; O'Reilly et al., 2024; Soler-Font et al., 2019; Ülgüdür & Dedeli Caydam, 2020), job satisfaction (Alrawahi et al., 2020; Kabbash et al., 2020; Pérez-Castejón et al., 2024; Quesada-Puga et al., 2024; Singh et al., 2019) life satisfaction (Piotrowska et al., 2019; Sansó et al., 2020; Tokay Argan & Mersin, 2020), and job and life satisfaction (Pan et al., 2021; Uchmanowicz et al., 2019) of healthcare workers. However, to the best of our knowledge, no study has examined the relationship between workplace ergonomics levels, JS and the LS of healthcare workers in Turkey. Given the interrelatedness of the working environment, working hours, and working styles of healthcare workers, it is reasonable to assume that the level of workplace ergonomics is related to JS and LS. The results of this study are expected to shed light on the importance and suitability of workplace ergonomic conditions in healthcare facilities and the need to take precautions against ergonomic risk factors.

## 3. Methods

### 3.1. Study Design

This study used a cross-sectional, descriptive, and correlational design.

### 3.2. Participants

This research was conducted in Adiyaman between December 2021 and March 2022. The study population comprised healthcare workers working in a training and research hospital of Adiyaman, located in the Southeastern Anatolia Region of Turkey. The study sample was taken from a pool of 1,926 healthcare workers, and the necessary sample size was determined to be 191 using the G Power 3.1.9.7 program. Assuming the likelihood of missing data, 550 data collection forms were distributed to healthcare workers who met the inclusion criteria, and 422 of these were included in the study because they were filled in completely. According to the power analysis of the G Power 3.1.9.7 program, with 422 healthcare workers, 0.20 effect size, and 0.05 margin of error, the representative power of the sample was 98%. Healthcare workers who had been working at the institution for at least one year, who had no communication barriers, and who volunteered to participate in the research were included in the study. Medical secretaries, intern students, those educated in the field of health but who did not work in the field in which they were trained, those who had worked at the institution for less than one year, those working in administrative

units, and those working in the information processing department were excluded.

### 3.3. Data Collection Tools

**Sociodemographic Information Form:** This form was created according to the literature by the researchers. It consists of seven questions, including age, gender, body mass index (BMI), marital status, educational level, job, and monthly income.

**Ergonomics Scale (ES):** This consists of 17 items, developed and validated by Gün (2017) to determine the ergonomic conditions (cleaning, lighting, ventilation, noise, vibration, heat, humidity, dust, suitability of physical conditions, nutrition, etc.) and ergonomics of the entire working environment in the workplace. The scale is answered on a 5-point Likert scale (1 = not at all, 2 = a little bit, 3 = moderately, 4 = a lot, and 5 = too much). A score between 5.00 and 4.06 points indicates high ergonomics, between 4.05–2.51 points indicates average ergonomics, and 2.50 points and below indicates low ergonomics levels. In Gün's study, the Cronbach's alpha value of the Ergonomics Scale was 0.94. In this study, the Cronbach's alpha value of the scale was 0.88.

**Minnesota Job Satisfaction Scale (MJSS):** This is a scale used to determine the job satisfaction level of employees. Weiss, Dawiss, England, and Lofquist (1967) developed the scale, and Baycan (1985) performed Turkish validity and reliability. The scale consists of 20 items. It has two subdimensions: 12 internal items (questions numbered 1, 2, 3, 4, 7, 8, 9, 10, 11, 15, 16, 20) and 8 external items (questions numbered 5, 6, 12, 13, 14, 17, 18, 19). The intrinsic satisfaction subdimension, which generally includes the intrinsic nature of the job, includes recognition, success, and promotion; the external satisfaction subdimension consists of the elements related to the policy carried out by the organization, supervision, manager, relations with colleagues, communication with subordinates, working conditions, and wages. It is a 5-point Likert scale (1 = not at all satisfied, 2 = not satisfied, 3 = undecided, 4 = satisfied, and 5 = very satisfied). If the average score per item taken from the scale is less than 3, job satisfaction is considered low, and if it is higher than 3, job satisfaction is considered high. In Baycan's study, the Cronbach's alpha value of the scale was 0.826. In this study, the Cronbach's alpha value of the scale was 0.93.

**Life Satisfaction Scale (LSS):** This is a scale used to determine the satisfaction that individuals get from their lives. Diener, Emmons, Larsen, and Griffin (1985) developed it, and Dağlı and Baysal (2016) made Turkish validity and reliability. The scale, which consists of five questions, is scored on a 5-point Likert-type scale (1 = I strongly disagree, 2 = I agree very little, 3 = I agree moderately, 4 = I agree greatly, and 5 = I completely agree). The higher the

score obtained from the scale, the higher the participants' life satisfaction. In Dağlı and Baysal's study, the Cronbach's alpha value of this scale was 0.88. In this study, the Cronbach's alpha value of the scale was 0.90.

### 3.4. Implementation of Data Collection Tools

The data collection form was distributed to the participants at the beginning of working hours and collected at the end of working hours. The researcher answered healthcare workers' questions and emphasized the necessity of signing an informed consent form.

### 3.5. Data Analysis

The answers of the healthcare workers participating in the study to the questions on the Sociodemographic Information Form and the scales were coded into SPSS 25.0. Before the data were analyzed, it was tested whether the scores obtained from the Ergonomics Scale, the Minnesota Job Satisfaction Scale and its subdimensions, and the Life Satisfaction Scale were normally distributed, and the skewness and kurtosis coefficients were examined. Parametric tests were used in the data analysis because of the normal distribution (Büyüköztürk, 2006). In the study,  $p < 0.05$  was taken as the significance value.

Pearson correlation analysis was used to evaluate the relationships between scales, and linear regression analysis was used to explain the amount of interaction.

### 3.6. Ethical Aspects of the Study

Research permission was obtained from Adıyaman University non-interventional ethics committee for the implementation of the study (approval number: 19/7/2022-300). Research permission was also obtained from Adıyaman Training and Research Hospital where the study was conducted.

Verbal and written consents of the participants were obtained before data collection.

## 4. Results

Considering the sociodemographic characteristics of healthcare workers, 48.1% of the healthcare workers participating in the research were in the age range of 26–35, 64.2% were female, 51.7% were in the normal weight, 73.2% were married, 55.2% were bachelors, and 41.2% were nurses. The monthly income of the healthcare workers was between 5,001–7,500 TL, with a percentage of 46.9%.

The sociodemographic characteristics of the healthcare workers participating in the research are presented in Table 1.

**Table 1. Sociodemographic Characteristics of Healthcare Workers**

Sociodemographic Variables	n	%
<b>Age</b>		
18-25	32	7.6
26-35	203	48.1
36-45	147	34.8
46 and older	40	9.5
Total	422	100
<b>Gender</b>		
Female	271	64.2
Male	151	35.8
Total	422	100
<b>BMI</b>		
Underweight ( <i>below 18.5 kg/m<sup>2</sup></i> )	6	1.4
Normal Weight ( <i>between 18.5-24.9 kg/m<sup>2</sup></i> )	218	51.7
Overweight ( <i>between 25-29.9 kg/m<sup>2</sup></i> )	169	40
Obesity ( <i>between 30-39.9 kg/m<sup>2</sup></i> )	29	6.9
Total	422	100
<b>Marital Status</b>		
Married	309	73.2
Single	113	26.8
Total	422	100
<b>Education</b>		
High School	32	7.6
Associate Degree	79	18.7
Bachelor's	233	55.2
Master's	37	8.8
Specialist	41	9.7
Total	422	100
<b>Job</b>		
Doctor	92	21.8
Nurse	174	41.2
Midwife	45	10.7
Other*	111	26.3
Total	422	100

\* Other: Emergency Medical Technician, Laboratory, Pharmacist, Dietitian, Physiotherapist, Technician

**Table 1. Sociodemographic Characteristics of Healthcare Workers (Continue)**

<b>Monthly Income</b>		
2500-5000 TL	46	10.9
5001-7500 TL	198	46.9
7501-10000 TL	102	24.2
Above 10000 TL	76	18
Total	422	100

*TL: Turkish Liras*

The mean ES score of healthcare workers was  $2.85 \pm 0.6$ . The scores of healthcare workers from the MJSS; the mean internal job satisfaction (IJS) score was  $2.94 \pm 0.7$ , the mean external job satisfaction (EJS) score was  $2.65 \pm 0.8$ , and the mean general job satisfaction (GJS) score was  $2.83 \pm 0.7$ . The mean score from the LSS for healthcare workers was  $2.33 \pm 0.9$ .

The average scores of the healthcare workers participating in the research from the scales are presented in Table 2.

**Table 2. Mean Scores of the Ergonomics Scale, Minnesota Job Satisfaction Scale and Life Satisfaction**

	Scale	Mean $\pm$ SD	Min-Max
MJSS	ES	$2.85 \pm 0.6$	1-5
	IJS	$2.94 \pm 0.7$	1-5
	EJS	$2.65 \pm 0.8$	1-5
	GJS	$2.83 \pm 0.7$	1-5
LSS		$2.33 \pm 0.9$	1-5

*SD: Standart Deviation, Min: Minimum, Max: Maksimum. ES: Ergonomics Scale; MJSS: Minnesota Job Satisfaction Scale; IJS: Internal Job Satisfaction; EJS: External Job Satisfaction; GJS: General Job Satisfaction; LSS: Life Satisfaction Scale.*

The relationship between the ES and other scales of healthcare workers is examined. There was a positive, strong, and significant relationship between IJS ( $r = 0.586$ ;  $p < 0.01$ ), EJS ( $r = 0.610$ ;  $p < 0.01$ ), GJS ( $r = 0.621$ ;  $p < 0.01$ ), and LS ( $r = 0.552$ ;  $p < 0.01$ ). A positive, strong, and significant relationship was determined between IJS and EJS ( $r = 0.62$ ;  $p < 0.01$ ). There was a positive, strong, and significant relationship between healthcare workers' LS and IJS ( $r = 0.561$ ,  $p < 0.01$ ), EJS ( $r = 0.537$ ;  $p < 0.01$ ), and GJS ( $r = 0.552$ ;  $p < 0.01$ ).

The relationship between the mean scores obtained from the scales is presented in Table 3

**Table 3. Relationship between Mean Scores of Ergonomics Scale, Minnesota Job Satisfaction Scale and Life Satisfaction Scale**

Scales	ES	MJSS			LSS	
		IJS	EJS	GJS		
ES	r	1	0.586**	0.610**	0.621**	0.552**
	p		0.000	0.000	0.000	0.000
MJSS	IJS	r	1	0.839**	0.972**	0.561**
		p		0.000	0.000	0.000
	EJS	r		1	0.943**	0.537**
		p			0.000	0.000
	GJS	r			1	0.574**
		p				0.000
	LSS	r				1
		p				

*\*\*p < 0.01; r: Correlation coefficient; p: Significance; ES: Ergonomics Scale; MJSS: Minnesota Job Satisfaction Scale; IJS: Internal Job Satisfaction; EJS: External Job Satisfaction; GJS: General Job Satisfaction; LSS: Life Satisfaction Scale.*

According to the results of the regression analysis, while the workplace ergonomics level of healthcare workers had a significant effect on IJS ( $R = 0.586$ ;  $R^2 = 0.343$ ;  $p < 0.05$ ), EJS ( $R = 0.610$ ;  $R^2 = 0.372$ ;  $p < 0.05$ ), and GJS ( $R = 0.621$ ,  $R^2 = 0.385$ ,  $p < 0.05$ ), it had no significant effect on LS ( $R = 0.552$ ;  $R^2 = 0.303$ ;  $p >$

0.05). The level of JS of health workers also had a significant effect on LS ( $R = 0.574$ ;  $R^2 = 0.329$ ;  $p < 0.05$ ). The results of the regression analysis are presented in Table 4.

**Table 4. Comparison of Mean Scores of the Ergonomics Scale, Minnesota Job Satisfaction Scale and Life Satisfaction Scale**

Independent Variable	Dependent Variable	B	SE	(β)	t	P	R	R <sup>2</sup>	F	p
ES	IJS	0.963	0.138	0.586	7.00	0.00	586	0.343	219.493	<b>0.001</b>
	EJS	0.446	0.143	0.610	3.11	0.00	610	0.372	248.851	<b>0.002</b>
	GJS	0.757	0.131	0.621	5.76	0.00	621	0.385	263.219	<b>0.000</b>
	LSS	-0.02	0.178	0.552	-0.12	0.00	552	0.303	184.477	0.90
MJSS	LSS	0.261	0.150	0.574	1.744	0.00	574	0.329	206.286	<b>0.000</b>

*p < 0.05; B: Unstandardized B ; SE: Standart error; (B): Standardized B; t: Significance test value of regression coefficients; P: Acceptance value of null hypothesis R: Correlation coefficient; R<sup>2</sup>: Determination coefficient ; F: Test value ; p: Significance. ES: Ergonomics Scale; MJSS: Minnesota Job Satisfaction Scale; IJS: Internal Job Satisfaction; EJS: External Job Satisfaction; GJS: General Job Satisfaction; LSS: Life Satisfaction Scale.*

## 5. Discussion

In this study, in which the relationship between workplace ergonomics, JS and LS of healthcare workers was investigated, the workplace ergonomics level of healthcare workers was moderate. Abdollahi et al. (2020), determined that the level of ergonomics in operating room nurses will be improved through ergonomics training and also musculoskeletal disorders will be reduced through this training. Dixon et al. (2024), determined that robotic surgery with an open console system reduced ergonomic risk score, prevented cognitive strain and did not harm team communication. In Saad & Ebraheem's study (2019), more than two-thirds of the nurses reported low perceived ergonomics. O'Reilly et al. (2024), determined that surgeons are predisposed to cervical musculoskeletal dysfunction due to ergonomic inadequacies in operating rooms and that biomechanical factors also affect this. It was also found that research on ergonomic improvements in operating rooms is insufficient. Soler-Font et al. (2019), in a randomized controlled trial in which they applied a participatory ergonomics intervention to reduce musculoskeletal pain caused by ergonomic inadequacies, a decrease in neck, shoulder and upper back pain of hospital nurses was observed. Ülgüdür & Dedeli Caydam (2020), found that the ergonomics level of healthcare workers was at a medium level and musculoskeletal disorders increased as the ergonomics level decreased. In work environments where physical and environmental safety measures are taken, employee–employee and manager–employee relations are positive, and the workload is reduced due to the availability of sufficient employees, a higher workplace ergonomics level is observed and, thus, healthy working conditions are created (Nantsupawat et al., 2017; Saad & Ebraheem, 2019).

The IJS, EJS and GJS of the healthcare workers, who constitute the sample of our research, was low. Kabbash et al. (2020) found JS among physicians at a moderate level, while Singh et al. (2019) found that the level of JS was low among healthcare workers, emergency room workers, and nurses, respectively. Pérez-Castejón et al. (2024), in their meta-analysis study, they determined that the job satisfaction of midwives was at a high level. Quesada-Puga et al. (2024), in their meta-analysis study, they determined that job satisfaction of intensive care nurses was low. In addition, Saad and Ebraheem (2019) determined that more than two-thirds of nurses had low JS. JS is influenced by individual and organizational factors. For this reason, we can say that JS varies first at the individual level and then at the institutional level due to the organizational differences of each institution and the individual differences of each healthcare worker (personality

structure, expectations from the profession, the structure and responsibility of the job they do, etc.).

The healthcare workers who participated in this study had a low level of LS. Tokay Arkan & Mersin (2020) and Sansó et al. (2020) found the level of LS to be higher than in this study in research conducted with healthcare workers. Uchmanowicz et al. (2019) stated that more than 50% of nurses and midwives had a high level of LS, while Piotrkowska et al. (2019) determined that oncology nurses had a low level of LS. The reason for the low level of LS of healthcare workers in this study is the high workload of health workers and the negative effects of personal and work-related factors on LS (Sansó et al., 2020), which vary from person to person and from group to group (Tokay Arkan & Mersin, 2020).

There was a positive, strong, and significant relationship between workplace ergonomics levels and the (internal, external, and general) JS of healthcare workers in our study. As the workplace ergonomics level of healthcare workers increases, their JS also increases. Bazazan et al. (2019) determined a negative relationship between work-related musculoskeletal disorders and JS in emergency nurses. Saad & Ebraheem (2019) found a strong positive relationship between perceived ergonomics and JS in nurses. Tenaw et al. (2021), in their meta-analysis study, they found that JS of healthcare workers was low and JS increased in a safe working environment and when positive relationships between employees were provided. Making ergonomic arrangements in the working environment protects the health of employees, increases their productivity, and makes them happy, thus increasing their satisfaction with their work (Bazazan et al., 2019; Osibanjo et al., 2014).

There was a positive, strong, and significant relationship between the workplace ergonomics level of healthcare workers and their LS. When the workplace ergonomics level of healthcare workers increases, their LS also increases. Koinis et al. (2015) stated that when the working conditions of healthcare workers improve in terms of workplace ergonomic risks, their LS may also increase. The dissatisfaction experienced in business life due to the working environment can create negative effects on the family, social relations, and environment of the employees and can cause deterioration in the mental and physical conditions of the employees; thus, their LS may also be indirectly affected.

There was a positive, strong, and significant relationship between healthcare workers' (internal, external, and general) JS and their LS. When the JS of healthcare workers increases, their LS also increases. Gaszynska et al. (2014) determined that there is a strong relationship between JS and LS. Healthcare workers whose expectations are met in

business life and who are happy are expected to be happy and harmonious individuals in their nonwork lives as well (Gaszynska et al., 2014).

According to the results of the regression analysis between the ES and the MJSS, the workplace ergonomics level of healthcare professionals had a significant effect on their internal, external, and general JS. Shi et al. (2020) determined the mediating effect of work environment satisfaction and occupational exposure on JS among healthcare workers. Alrawahi et al. (2020) determined that occupational health and safety, promotion, salary, recognition, heavy workload, and organizational policies cause job dissatisfaction among laboratory workers. Ergonomic improvements made in working environments play a role in the development of positive attitudes of employees toward their work (Nansutpawat et al., 2017).

Regression analysis between the MJSS and the LSS in our research indicated that healthcare workers' JS significantly affects LS. Gaszynska et al. (2014) studied anesthesiologists, and Pan et al. (2021) studied nurses and found that JS affects LS. According to our study and the results of studies conducted in other countries, LS is a synthesis of work and social life.

As a result of the regression analysis between the ES and LSS, the workplace ergonomics level of healthcare workers did not significantly affect their LS. Contrary to our findings, Piotrkowska et al. (2019) determined that working conditions and work organization affect LS in oncology nurses. Ergonomics is a multidimensional discipline that has individual, environmental, physical, and social dimensions, as well as working conditions and work organization (Karwowski, 2005). In our study, it is assumed that JS plays a mediating role between ergonomics level and LS.

This research is limited to healthcare workers who volunteer and work in hospitals within the education and research hospital of Adiyaman in Turkey. Therefore, the results of the study are limited to the sample and cannot be generalized to all healthcare workers.

## 6. Conclusion

The workplace ergonomics level of the healthcare workers participating in our research was at a medium level; (internal, external, and general) JS and LS were low. There was a positive, strong, and significant relationship among the workplace ergonomics level, (internal, external, and general) JS and LS of healthcare workers.

Considering the cognitive, affective, and psychomotor characteristics of healthcare workers and the physical, environmental, social, and organizational characteristics of the working

environment, ergonomic arrangements should be made to make it more suitable for employees. Ergonomic arrangements in the workplace will positively affect the attitudes of healthcare workers toward their jobs and their JS. It will also increase their LS, which is the synthesis of business life and social life.

Each occupational group defined as healthcare workers has its own ergonomic conditions and risk factors. Risk factors in the working environments of these occupational groups should be identified, necessary precautions should be taken and trainings should be provided for these risks.

By focusing on the factors that lead to job dissatisfaction in each occupational group, initiatives such as increasing the number of employees, reducing workload, fair distribution of tasks and increasing monthly earnings should be implemented to increase job satisfaction.

Job satisfaction and life satisfaction interact with each other. Contributing to the increase in job satisfaction of health workers has an effect on increasing happiness and life satisfaction. For this reason, appropriate ergonomic conditions should be provided in every occupational group, measures should be taken against job dissatisfaction, a healthy communication network should be provided within the organization, sufficient number of employees should be available in the units and the institution, and individual or group success should be rewarded. In addition, activities to increase motivation should be planned, organizational culture should be instilled in employees, and job satisfaction and, by extension, life satisfaction should be increased by evaluating employees' suggestions and complaints.

It is recommended to develop a comprehensive measurement tool specific to healthcare workers, with which the level of workplace ergonomics can be measured more sensitively, and to conduct research on this subject in larger samples and in different institutions.

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## Conflict of Interest

No conflict of interest has been declared by the authors.

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