

# The effect of nurses' working environment on job satisfaction during the COVID-19 pandemic\*

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## ABSTRACT

**Aims:** This study aimed to investigate the impact of nurses' work environment on their job satisfaction during the COVID-19 pandemic.

**Methods:** This descriptive and correlational study was conducted on 152 hospital nurses between January and October 2021. Data were collected using the "Descriptive Information Form," "Nurse Job Satisfaction Scale (NJSS)," and "Nursing Work Index (NWI)."

**Results:** It was found that 66.4% of the nurses were under 30 years of age, 59.9% were single, 58.6% had a bachelor's degree, 29.6% had children and 12.5% had chronic diseases. It was determined that 61.2% of the participants had a tenure of 1-5 years, 52.1% worked in a public hospital, and 50.0% worked for more than 48 hours. The total score on the NJSS was  $3.07 \pm 0.50$ , and the total score on the NWI was  $2.28 \pm 0.40$ . A statistically significant positive relationship was found between job satisfaction and working environment ( $p < 0.001$ ). It was determined that factors such as working in pandemic services, night shifts, and high patient numbers significantly affected job satisfaction.

**Conclusion:** Improving the working environment is important for nurses to increase job satisfaction, especially during challenging periods like the COVID-19 pandemic.

**Keywords:** COVID-19, pandemic, job satisfaction, work environment, Nursing Work Index

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## INTRODUCTION

The World Health Organization (WHO) declared a pandemic on March 11, 2020 (WHO, 2025). The COVID-19 pandemic has drastically changed the working environments and lifestyles of all healthcare professionals, especially nurses. Due to the pandemic, nurses' long shifts, insufficient break hours, and staying away from their homes due to the fear of infecting their families caused nurses to be negatively affected (Hernandez et al., 2024).

Nurses are health professionals responsible for maintaining health and eliminating diseases. Nurses, who have an important place in society, take responsibility for raising the level of health by providing quality and planned nursing care (WHO, 2020). For nurses to fulfill the requirements of their profession, for which they take great responsibility, they need to work in appropriate conditions. Good working conditions are critical for nurses to provide better quality patient care and be satisfied with their work (Lee et al., 2022). Studies have shown that a positive working environment positively affects the perception of quality of care and patient safety, positively affects patients' perceptions of quality of care (Mihdawi et al., 2020; Guirardello, 2017), and reduces burnout and turnover

intentions (Al Sabei et al., 2020; Poku et al., 2022), decreases medication error rates (Nasiri et al., 2022) and patient mortality rates (Olds et al., 2017), and increases nurses' job satisfaction (Lu et al., 2019; Akinwale et al., 2020).

Job satisfaction is an expression of employees' physical, mental, and individual health and an indicator of their mood. Job satisfaction is being satisfied with the individuals worked with and the work created during the working period. It is stated that a positive work environment increases nurses' job satisfaction, reduces burnout and turnover intentions, and higher quality of care and patient safety (Lu et al., 2019; Akinwale et al., 2020; Aloisio et al., 2021; Al Sabei et al., 2020; Poku et al., 2022). Job satisfaction is a result of a healthy working life. Studies show that the negative situations nurses face in working conditions reduce the quality of nursing care applied to the patient and the interest of the nurses who apply the care and reduce job satisfaction (Maghsoud et al., 2022; Lavoie-Tremblay et al., 2022). Especially natural disasters, wars, and migrations have proved to society that nurses, who are at the forefront of the fight against infectious diseases, have an indispensable place among health professionals. In

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the COVID-19 pandemic process experienced by the world in recent years, nurses have once again demonstrated that they are a profession that plays an important role in patient care and management (Çelik et al., 2020). However, many reasons, such as intensive working conditions of nurses, long shifts, and disruptions in practice even though their professional duties have been determined, affect the job satisfaction of nurses (Lu et al., 2019). This research will contribute to taking measures to improve physical working conditions and administrative support, increase communication and cooperation within the team, and improve the sense of psychological security by revealing how nurses' working environment affects job satisfaction in the fight against epidemics. This study aims to investigate the effect of nurses' working conditions on their job satisfaction during the pandemic.

## METHODS

### Ethical Approval

Permission was obtained from the İstinye University Social and Human Sciences Researches Ethics Committee (Date: 21.01.2021, Decision No: 11). Permission was obtained by notifying the Republic of Türkiye Ministry of Health Scientific Research Platform. Permission was obtained from the authors for the use of the scales. Online informed consent was obtained from nurses who volunteered to participate in the study. The Declaration of Helsinki conducted each stage of the study.

### Study Design

This study was planned as descriptive and correlational research to investigate the effect of nurses' working environments on their job satisfaction during the COVID-19 pandemic.

### Sample

The study was conducted on nurses working in hospitals on the European side of İstanbul between January and October 2021. The sample size was calculated using G-power 3.1.9.7 software. Taking the effect size as 0.3, alpha 0.05, and power 0.85, the sample size was determined as 102 nurses. It was envisaged to reach at least 107 nurses who met the inclusion criteria. Within the scope of the study, data collection forms were sent to 500 nurses for considering the low return rate due to the pandemic, and 152 nurses responded to the questionnaire. The sample was determined by snowball sampling method, and nurses who actively worked in hospitals during the pandemic and worked for at least 6 months were included in the study.

### Data Collection Tools

Data were collected using the Descriptive Characteristics Information Form, Nurse Job Satisfaction Scale (NJSS), and Nursing Work Index (NWI).

**Descriptive Characteristics Information Form:** It consists of 24 questions compiled by the researchers from the literature and includes demographic characteristics of the participants such as age, gender, educational status, marital status, professional background, and working experiences during the pandemic (Seren Intepeler et al., 2019; Topçu et al., 2016).

**Nurse Job Satisfaction Scale (NJSS):** This scale, which was developed by Muya et al. (2014) and validated and reliably validated by Türe Yılmaz and Yıldırım (2016), consists of 27

items and is evaluated with a 5-point Likert-Type Scale. It evaluates job satisfaction in four dimensions: positive feelings about work, perceived support from superiors, perceived importance at work, and pleasant working environment. Items 7 and 21 of the scale are scored in the opposite direction. Higher scores indicate higher job satisfaction. While Cronbach's alpha value on the scale is 0.903, Cronbach's alpha value on the scale in our study is 0.84.

**Nursing Work Index (NWI):** This scale, developed by Lake (2002) and adapted for Turkish validity and reliability by Türkmen et al. (2011), consists of 31 items and five sub-dimensions. These sub-dimensions are participation of nurses in management, necessary nursing resources for quality care, leadership characteristics of nurse managers, adequacy of workforce and other resources, and physician-nurse communication. Scale items are measured with a 4-point Likert scale. As the score of the individuals increases, their attitudes towards the work environment increase positively. While the Cronbach's alpha value on the scale was 0.87, the Cronbach's alpha value on the scale in our study was 0.90.

### Research Implementation

Due to pandemic conditions and restrictions, data were collected online via Google Forms. The survey took an average of 20-25 minutes to complete.

### Statistical Analysis

Data were analyzed using the SPSS 25.0 package program. Descriptive statistics were presented as frequency and percentage distributions. Kolmogorov-Smirnov test was used to examine the normal distribution, and the Spearman correlation test was used to determine the relationship between variables; Mann-Whitney U and Kruskal-Wallis H tests were applied for group comparisons. The statistical significance level was accepted as  $p < 0.05$ .

## RESULTS

It was found that 66.4% of the nurses were under 30 years of age, 59.9% were single, 58.6% had a bachelor's degree, 29.6% had children and 12.5% had chronic diseases. It was found that 61.2% of the participants had a tenure of 1-5 years, 52.1% worked in a public hospital, and 50.0% worked for more than 48 hours (Table 1).

When the differences between the sociodemographic characteristics of the nurses and the total scores of the scales were questioned, a significant difference was found between the NJSS and the department of employment ( $KW=18.960$ ;  $p=0.001$ ) and between the NWI and educational status ( $KW=9.917$ ;  $p=0.019$ ) and the department of employment ( $KW=10.632$ ;  $p=0.031$ ) (Table 1).

Although not specified in the table, it was found that 66.4% of the nurses provided care to patients diagnosed with COVID-19, 63.2% received training on the pandemic, 28.9% occasionally had problems accessing personal protective equipment, 65.1% had difficulty in caring for family members, 26.3% suffered financial loss due to the pandemic, and 27.6% considered receiving psychological support due to the pandemic.

It was determined that the total score of NWI was at a moderate level with  $2.28 \pm 0.40$ . The sub-dimension of "participation of nurses in management and representative power" was  $2.23 \pm 0.48$ , the sub-dimension of "nursing resources required

**Table 1. Distribution of sociodemographic characteristics and NJSS and NWIS scores of nurses (n:152)**

| Features                            |                    | n   | %    | NJSS total<br>Mean±SD | NWIS total<br>Mean±SD |
|-------------------------------------|--------------------|-----|------|-----------------------|-----------------------|
| Age                                 | Under 30 years old | 101 | 66.4 | 3.06±0.50             | 2.26±0.40             |
|                                     | 30 years and older | 51  | 33.6 | 3.08±0.51             | 2.31±0.41             |
| Z                                   |                    |     |      | -0.045                | -1.024                |
| P                                   |                    |     |      | 0.965                 | 0.306                 |
| Marital status                      | Single             | 91  | 59.9 | 3.04±0.51             | 2.25±0.41             |
|                                     | Married            | 61  | 40.1 | 3.12±0.49             | 2.31±0.39             |
| Z                                   |                    |     |      | -0.637                | -1.101                |
| P                                   |                    |     |      | 0.526                 | 0.271                 |
| Education status                    | High school        | 10  | 6.6  | 3.11±0.58             | 2.48±0.23             |
|                                     | Associate degree   | 22  | 14.5 | 3.03±0.60             | 2.13±0.57             |
|                                     | License            | 89  | 58.6 | 3.03±0.49             | 2.25±0.37             |
|                                     | Undergraduate      | 31  | 20.4 | 3.20±0.43             | 2.38±0.36             |
| KW                                  |                    |     |      | 3.430                 | 9.917                 |
| P                                   |                    |     |      | 0.330                 | 0.019                 |
| Having a child                      | Yes                | 45  | 29.6 | 3.11±0.48             | 2.34±0.38             |
|                                     | No                 | 107 | 70.4 | 3.05±0.51             | 2.25±0.41             |
| Z                                   |                    |     |      | -0.432                | -1.382                |
| P                                   |                    |     |      | 0.668                 | 0.167                 |
| Length of service in the profession | 1-5 years          | 93  | 61.2 | 3.12±0.49             | 2.48±0.23             |
|                                     | 6-11 years         | 40  | 26.3 | 2.93±0.54             | 2.13±0.57             |
|                                     | 12 years ve above  | 19  | 12.5 | 3.14±0.49             | 2.25±0.37             |
| KW                                  |                    |     |      | 2.870                 | -1.101                |
| P                                   |                    |     |      | 0.238                 | 0.271                 |
| Hospital                            | Private            | 57  | 37.5 | 3.08±0.57             | 2.30±0.42             |
|                                     | State              | 64  | 42.1 | 3.04±0.47             | 2.26±0.39             |
|                                     | University         | 21  | 13.8 | 3.14±0.39             | 2.27±0.47             |
|                                     | Research           | 10  | 6.6  | 3.03±0.59             | 2.26±0.28             |
| KW                                  |                    |     |      | 0.778                 | 0.276                 |
| P                                   |                    |     |      | 0.855                 | 0.964                 |
| Department                          | Intensive care     | 27  | 17.8 | 3.14±0.55             | 2.33±0.39             |
|                                     | Emergency service  | 28  | 18.4 | 2.91±0.46             | 2.14±0.45             |
|                                     | Pandemic service   | 10  | 6.6  | 2.40±0.51             | 2.01±0.36             |
|                                     | Operating room     | 24  | 15.8 | 3.22±0.42             | 2.41±0.31             |
|                                     | Other              | 63  | 41.4 | 3.16±0.43             | 2.31±0.39             |
| KW                                  |                    |     |      | 18.960                | 10.632                |
| P                                   |                    |     |      | 0.001                 | 0.031                 |

NJSS: Nurse Job Satisfaction Scale, NWIS: Nursing Work Index Scale, Z: Mann-Whitney U test, KW: Kruskal-Wallis H test, p<0.05, SD: Standard deviation

for quality care” was 2.23±0.48, the sub-dimension of “attitude and leadership characteristics of executive nurses” was 2.14±0.60, the sub-dimension of “sufficiency of manpower and other resources” was 1.90±0.57 and the sub-dimension of “physician nurse colleague communication” was 2.56±0.61 (Table 2).

**Table 2. Total and subscale scores of the NJSS and NWI (n=152)**

| Scale                                                                 | Min  | Max  | x    | SD   |
|-----------------------------------------------------------------------|------|------|------|------|
| <b>NJSS total</b>                                                     | 1.53 | 4.30 | 3.07 | 0.50 |
| NJSS-positive feelings about work                                     | 1.25 | 4.38 | 3.31 | 0.57 |
| NJSS-appropriate support from superiors                               | 1.00 | 5.00 | 2.88 | 1.03 |
| NJSS-perceived importance at work                                     | 1.63 | 4.50 | 3.64 | 0.46 |
| NJSS-pleasant working environment                                     | 1.00 | 4.60 | 2.42 | 0.72 |
| <b>NWI total</b>                                                      | 1.26 | 3.50 | 2.28 | 0.40 |
| NWI-participation of nurses in management and power of representation | 1.00 | 3.22 | 2.23 | 0.48 |
| NWI-nursing resources required for quality care                       | 1.00 | 3.70 | 2.55 | 0.48 |
| NWI-attitude and leadership characteristics of nurse managers         | 1.00 | 3.80 | 2.14 | 0.60 |
| NWI-adequacy of manpower and other resources                          | 1.00 | 3.75 | 1.90 | 0.57 |
| NWI-physician nurse colleague communication                           | 1.00 | 3.67 | 2.56 | 0.61 |

NJSS: Nurse Job Satisfaction Scale, NWI: Nursing Work Index, x: Mean, SD: Standart deviation, Min: Minimum, Max: Maximum

The participants' total scores were 3.07±0.50, the sub-dimension of “positive feelings about work” was 3.31±0.57, the sub-dimension of “appropriate support from superiors” was 2.88±1.03, the sub-dimension of “perceived importance at work” was 3.64±0.46, and the sub-dimension of “pleasant working environment” was 2.42±0.72 (Table 2).

There was a moderate positive correlation between the total scores of the NJSS and the NWI (r: 0.758; p: <0.001). There was a positive and moderate correlation between all sub-dimensions of the NJSS and the sub-dimensions of “participation of nurses in management and representative power,” “nursing resources required for quality care,” “attitude and leadership characteristics of executive nurses characteristics,” and “physician nurse colleague communication” (Table 3).

## DISCUSSION

The pandemic period has caused healthcare workers, especially nurses, to face a series of challenges that they have not faced before. During this period, improving the working environment of nurses increased job satisfaction

**Table 3. The relationship between NJSS and NWI**

| Sub-dimensions                     |   | NWI total | Participation of nurses in management and representative power | Nursing resources required for quality care | Attitude and leadership characteristics of executive nurses characteristics | Sufficiency of manpower and other resources | Physician nurse colleague communication |
|------------------------------------|---|-----------|----------------------------------------------------------------|---------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------|
| NJSS total                         | r | 0.758     | 0.657                                                          | 0.610                                       | 0.660                                                                       | 0.378                                       | 0.432                                   |
|                                    | p | <0.001    | <0.001                                                         | <0.001                                      | <0.001                                                                      | <0.001                                      | <0.001.                                 |
| Positive feelings about work       | r | 0.481     | 0.432                                                          | 0.478                                       | 0.335                                                                       | 0.244                                       | 0.293                                   |
|                                    | p | <0.001    | <0.001                                                         | <0.001                                      | <0.001                                                                      | 0.002                                       | <0.001.                                 |
| Appropriate support from superiors | r | 0.734     | 0.646                                                          | 0.540                                       | 0.741                                                                       | 0.271                                       | 0.417                                   |
|                                    | p | <0.001    | <0.001                                                         | <0.001                                      | <0.001                                                                      | 0.001                                       | <0.001.                                 |
| Perceived importance at work       | r | 0.269     | 0.206                                                          | 0.368                                       | 0.262                                                                       | 0.092                                       | 0.291                                   |
|                                    | p | 0.001     | 0.011                                                          | <0.001                                      | <0.001                                                                      | 0.262                                       | <0.001.                                 |
| Pleasant working environment       | r | 0.482     | 0.411                                                          | 0.327                                       | 0.342                                                                       | 0.454                                       | 0.242                                   |
|                                    | p | <0.001    | <0.001                                                         | <0.001                                      | <0.001                                                                      | <0.001                                      | 0.003.                                  |

NJSS: Nurse Job Satisfaction Scale, NWI: Nursing Work Index, r: Spearman correlation coefficient, p<0.01



and directly affected the effectiveness of health services and the quality of patient care. During the rapid spread of COVID-19, nurses struggled with inadequate resources, personal protective equipment, and staff support while coping with the increasing number of patients and intense workload. Nurses' work environments were a critical factor in coping with these challenges, as unfavorable working conditions can lead to burnout, stress, and demotivation, reducing nurses' productivity. Moreover, a safe and supportive working environment enables nurses to focus more on patient care and increases the resilience of the healthcare system (Galanis et al., 2023). Therefore, improving the working conditions of nurses during the pandemic period is of great importance not only for individual healthcare workers but also for the sustainability of the entire healthcare system (Backes et al., 2021).

### Discussion of Findings Related to the Nursing Job Satisfaction Scale (NJSS)

The pandemic period has significantly affected nurses' job satisfaction. Our study shows that job satisfaction ( $3.07 \pm 0.50$ ) is at a moderate level. Some studies revealed that nurses' job satisfaction scores were generally moderate during this period. In particular, the total job satisfaction score of nurses caring for COVID-19 patients was determined as  $82.58 \pm 11.11$  in a study using the Minnesota Job Satisfaction Scale (Yu et al., 2020). In another study, the mean score was found to be  $3.83 \pm 0.56$  in the evaluations made with the Job Satisfaction Scale, and it was emphasized that the job satisfaction of nurses similar in the pandemic (Türe & Akkoç, 2020). The study conducted by Türe Yılmaz and Yıldırım (2016) were similar to ours, and the level of job satisfaction was found to be  $3.98 \pm 0.60$ , above the average. In the study conducted by Ersoy (2020), it is seen that the total score of job satisfaction is above the average  $3.37 \pm 0.586$ . Accordingly, the job satisfaction of nurses in studies conducted both during the pandemic period and before the pandemic is similar with our findings. In the literature, it is seen that job satisfaction was at a moderate level during the pandemic period, as in our study. These findings suggest that increased workload, psychological stress, and physical burnout negatively affected nurses' job satisfaction during the pandemic.

In our study, the highest score was found in the sub-dimension "perceived importance at work" ( $3.64 \pm 0.46$ ). Different results were obtained in studies conducted with similar nursing job satisfaction scales. In the study by Türe Yılmaz and Yıldırım (2016), the mean score of the "perceived importance at work" sub-dimension was  $4.22 \pm 0.51$ . In a study conducted by Ersoy (2020), it was stated that nurses gave the highest job satisfaction score in the "appropriate support from superiors" and "perceived importance at work" sub-dimensions, indicating that positive relationships with managers have a determining effect on job satisfaction. In a study conducted by Türe and Akkoç (2020), it was reported that nurses received the highest job satisfaction score in the "perceived importance at work" and "appropriate support from superiors" sub-dimensions, which indicated that nurses' feeling valuable and being supported positively affected their job satisfaction. These findings reveal that nurses get the highest job satisfaction from social factors such as human relations and managerial support. These findings reveal that nurses' commitment to their profession and their feelings of

serving society increasingly affect their job satisfaction. In addition, some studies have stated that the sub-dimension of "Satisfaction with the work itself" also received high scores and that nurses have a sense of professional satisfaction despite the intense workload (Hassoy & Özurmaz, 2019). All these findings show that job satisfaction is closely related to material and feelings of meaningfulness, being valued, and being supported.

Our study found the lowest score in the 'pleasant working environment' sub-dimension ( $2.42 \pm 0.72$ ). Previous studies show that sub-dimensions such as 'pleasant working environment', 'Appropriate support from superiors', and 'salary and promotion' are lower in nurses' job satisfaction. In the study of Türe Yılmaz and Yıldırım (2016), it was stated that nurses gave the lowest score to the 'Pleasant working environment' sub-dimension, which was related to the intensity of the workload. Similarly, Hassoy and Özurmaz (2019) reported that healthcare workers experienced low levels of job satisfaction in areas such as 'salary' and 'promotion'. In the study of Türe and Akkoç (2020), the sub-dimension 'appropriate support from superiors' stood out as an essential factor that negatively affected job satisfaction. These findings show that when nurses are not supported in terms of physical and managerial resources, their job satisfaction decreases significantly. At the same time, this situation increases the risk of burnout and negatively affects the quality of health services. At the same time, these results are thought to be due to the increased workload, intensive working hours, and insufficient social opportunities offered to nurses during the pandemic.

### Discussion of Findings Related to NWI

Nurses' working conditions directly impact their job satisfaction, professional commitment, and mental health. Recent studies reveal that unfavorable working environments increase the feeling of burnout and decrease job satisfaction in nurses (Galanis et al., 2023). A study conducted in Turkey found that nurses' exposure to challenging working conditions, especially during the pandemic, further deepened these adverse effects (Eminoğlu & Duruk, 2023). These findings suggest that improving working environments is critical to nurses' psychological and professional well-being.

A study conducted in South Korea found that work environment and professional autonomy positively affected nurses' patient safety practices (Kim & Park, 2023). Similarly, a study conducted in Thailand shows that inadequate nurse staffing negatively affects patient care quality and outcomes (Nantsupawat et al., 2022). These findings suggest that having an effective and supportive work environment for nurses directly affects not only their job satisfaction but also patient care outcomes

According to the results of our study, the mean score of nurses' NWI was  $2.28 \pm 0.40$ . According to the scale results, nurses' perceptions of working conditions are moderate. In a study conducted in Turkey, the mean total score of the NWI of nurses was found to be  $2.15 \pm 0.35$ , and this result showed that the perceptions towards the working environment were at a moderate level (Bitek & Akyol, 2017). Similar to our study, the study by Kökçü et al. (2018) showed that the mean score of the NWI was  $2.43 \pm 0.38$ . In a study conducted in Slovenia, the mean score of nurses' work index was found to be 2.65,

which was reported to be lower than previous studies (Skela Savic et al., 2023). Similarly, a study conducted in Thailand found that nurses' perceptions of the working environment were moderate and that staff shortages negatively affected the quality of care (Nantsupawat et al., 2022). The results of these studies are similar to our findings. It is thought that this situation may be due to increased workload and stress, difficulties in providing personal protective equipment, psychological and physical wear and tear, difficult working conditions, and the difficulties brought by the recovery process after the pandemic.

Physician-nurse collegial communication is an important factor that directly affects nurses' job satisfaction and quality of patient care. A positive workplace atmosphere and effective teamwork increase the professional satisfaction of nurses. Studies have determined that nurses' communication with physicians is higher than other work environment sub-dimensions (Ulusoy et al., 2013; Kurnaz, 2019). It has been stated that when nurses establish open and respectful communication with physicians, their work environment becomes more supportive and motivating (Hatip & Seren, 2021). These findings reveal that strong collegial communication between nurses and physicians positively impacts the work environment and improves the quality of healthcare services. According to our findings, the sub-dimension "physician-nurse-colleague communication" was the sub-dimension with the highest score. This may be due to the mutual solidarity of healthcare professionals in the face of the difficulties experienced during the pandemic.

The sub-dimension "adequacy of manpower and other resources" was found to be the lowest. Nurses may have expressed that the workforce and resources were insufficient due to the lack of nurses working in the institutions, auxiliary personnel, and the increased workload during the pandemic. Similarly, the literature shows that the sub-dimension of "sufficiency of manpower and other resources" is the lowest (Kökçü et al., 2018; Karaarslan et al., 2023). An international meta-analysis determined that the subscale scores varied in different continents and unit types. However, the "adequacy of personnel and resources" subscale generally scored lower than other areas (Bitek & Akyol, 2017). As a result, the "lack of manpower and personnel" subscale often scores lower than other subscales in the studies conducted. One of the main reasons for this situation is the high number of patients per nurse in health institutions and the resulting increased workload (Aiken et al., 2018). Inadequate employment policies lead to cost-oriented management of health services and the expectation of maximum service with minimum staff. Staff shortages increase workload and lead to factors that increase the risk of burnout, such as overtime and inflexible working hours (Lake et al., 2024). Engaging nurses in tasks outside their job descriptions also weakens the quality of basic nursing services, decreasing job satisfaction and patient care quality. Due to all these factors, the perception of insufficient staff and resources is lower.

### Discussion of the Relationship Between Total and Subscale Scores of the NJSS and NWI

This study found a moderate positive correlation between the NJSS and NWI of the nurses ( $r: 0.758$ ;  $p < 0.001$ ). According to this result, the working environment is important in increasing job satisfaction. Similar to our study, Bitek and Akyol (2017)

found that nurses who were satisfied with their working conditions had higher job satisfaction. Kurnaz (2019) stated that there was a positive and moderate relationship between job satisfaction and working environment and that the working environment is important in increasing job satisfaction. In the study conducted by Özcan (2021), it was stated that the emergence of the importance of the nursing profession during the pandemic period, the positive perception of support from superiors, the importance of nurses' ideas about nursing care in the workplace, the increase in the perceived importance in the workplace, the practices carried out by the institution to regulate the working environment and working conditions in this period increased job satisfaction, and it was stated that satisfaction with the working environment increased work motivation, job satisfaction, and service quality. The literature is similar to our findings. A healthy working environment for nurses means ensuring patient safety, increasing the quality of care, and improving the health and safety of health personnel. A healthy working environment is thought to increase job satisfaction by affecting the harmony, communication, and ownership of the work within the team. Therefore, it is important to improve nurses' working environment to increase their job satisfaction.

In our study, a positive and moderate relationship was found between all sub-dimensions of the NJSS and the sub-dimensions of "participation of nurses in management and representation power," "nursing resources required for quality care," "attitude and leadership characteristics of executive nurses characteristics" and "physician nurse colleague communication." As nurses' job satisfaction increases, their participation in management and their power to represent the profession, nursing resources necessary for quality care, attitude of nurse managers and leadership characteristics of nurses, adequacy of workforce and resources, and colleague communication also increase. Looking at the literature in the study conducted by Feather et al. (2015), similar to our study, it is seen that perceived importance in the workplace and nurse manager attitudes are significantly related to nurses' job satisfaction. The difficulties experienced during the pandemic have revealed nurses' importance. This situation is the reason for nurses' high perceived importance at work sub-dimension score. As the perceived importance at work increases, nurses' job satisfaction increases accordingly.

### Limitations

The study is limited to 152 nurses working in hospitals on the European Side of İstanbul between January and October 2021.

### CONCLUSION

According to our study results, while nurses evaluated their working environment at a moderate level, the most positive perception was of "physician-nurse communication," and the most negative perception was of "insufficient manpower and resources." Regarding job satisfaction, "perceived importance at work" was found to be the most positive, and "pleasant working environment" was the least positive. Therefore, it is important to improve nurses' working environment to increase their job satisfaction. Factors in the work environment play a critical role in reducing nurses' job stress and risk of burnout. Thus, increasing job satisfaction can lead to a more productive and motivated workforce. Moreover, improving the work environment directly affects the quality



of patient care, as satisfied nurses provide better quality care. Nurses' job satisfaction also provides an important data source for health institutions regarding policy development; more effective human resources strategies and workforce management can be created with this data. As a result, this research contributes to the sustainability of health services by increasing the quality of professional life of nurses and strengthening their commitment to their organizations. Comprehensive research should be conducted to identify the problems experienced by nurses during the COVID-19 pandemic, and working environments and resources should be improved to increase job satisfaction. To increase nurses' motivation, working hours should be organized according to international recommendations, psychological support programs should be offered, and career development opportunities should be increased. These measures will help nurses to protect their health and increase their professional satisfaction by balancing their workload.

## ETHICAL DECLARATIONS

### Ethics Committee Approval

The study was carried out with the permission of the İstinye University Social and Human Sciences Researches Ethics Committee (Date: 21.01.2021, Decision No: 11).

### Informed Consent

Written informed consent was obtained from all nurses included in the study.

### Referee Evaluation Process

Externally peer-reviewed.

### Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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### Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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