



Nurses' perceptions about management practices of nurse managers during pandemics: a descriptive and cross-sectional study

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ABSTRACT

Introduction: Hospitals may not be able to manage the chaotic environment during pandemics through classical management principles. Management can only be achieved with the help of effective leadership, appropriate flow of crisis management systems, teamwork, and collaboration. Nurse managers should have effective management skills. Objective: To evaluate the perception of the nurse managers' practices by nurses such as resource management, organization, communication, psychosocial, care-training, and decision-making practices in the management of the pandemic based on the COVID-19 pandemic. Methods: A quantitative, cross-sectional method was used, and a web-based online questionnaire was applied to collect data. This study included 182 nurses working in a public and private hospital in İstanbul. Result: The nurses perceived the management practices of their managers at a moderate level. The leaders' resource management practices as low (16.5%), and medium (78.6%) perceive. There was a statistically significant difference (p<0.01) between the communication and team relations (p<0.05), resource management (p<0.01), care-training (p<0.05), and decision-making scores (p<0.01) of the nurses working in the private hospitals compared to those working in the public hospital. Conclusion: To effectively manage a complex and chaotic environment, nurse managers should trust their team, have speed and adaptation skills, be based on human factor principles, and provide a safe working environment. Education should be emphasized so that nurses can work in specialized areas and nurse managers can improve their management skills.

Keywords: nurse administrators; nurses; COVID-19; perception.

INTRODUCTION

Globally, the increasing number of pandemics (SARS, Ebola, H1N1) over the last twenty-five years has had a major impact on human health and the economy. Hospitals play a key role in providing essential medical care to the community in crises such as pandemics. In pandemic surges, no matter how prepared hospitals are, it can be difficult for them to cope with the health consequences. Global preparedness and strengthening of healthcare delivery systems are needed for global security during these periods¹.

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Declaration of interest: nothing to declare



This is an open access article distributed under the terms of the Creative Commons Attribution License ©2024 The authors In pandemics, the rapid increase in demand for services, which can affect the capacity of hospitals and health systems, can lead to the spread of disease and even systems collapse. Inadequate support services, equipment, supplies, and high staffing levels can restrict access to needed care and reduce occupational safety. Considered in this context in the COVID-19 pandemic, there was a shortage of protective equipment, intensive care beds for patients with respiratory failure, medical devices, and trained personnel to work in this field².

Management in pandemics is different from management in ordinary times. Situations of chaos, complexity, and uncertainty increase the need for leadership. Nurse managers have the potential to directly influence nurse and patient safety, quality of care, and therefore patient outcomes. Under these conditions, managers must create a specific vision, adapt quickly to the new situation, seek new ways to cope with the new healthcare environment and guide the way with patient care-centered strategies³.

The American Organization for Nursing Leadership (AONL)⁴ and the Manager Nurses Association of Türkiye (YÖHED)5 have defined the role and position of nurse managers to effectively manage a crisis. The managers should motivate, encourage, and fulfill the needs of the nurses. When faced with an intense workload, the manager should have working speed and adaptation skills, demonstrate appropriate leadership styles, communicate effectively, and provide a safe working environment for tired nurses, have feelings of fear and anger, and work under excessive workload⁶. Linton and Farrel⁷ used a phenomenological approach to assess how nurses perceived their leaders in a study conducted in an intensive care unit. According to the results of this study, leaders should be able to think creatively outside their field of expertise, look at things from different perspectives, understand their staff in times of crisis, and have particularly effective communication skills. Moore⁸ states that nurse leaders play three main roles in pandemic crises such as COVID-19: communication, vision/ values, and care relationships. In fact, in the study conducted by AONL⁴, it was found that 55% of nurse leaders faced difficulties in communication/implementation of changing policies, 50% in the emotional health of the staff, and 47% in accessing protective materials and devices in the COVID-19 pandemic.

According to Otara⁹, the perceptions of managers and employees in organizations shape the organizational climate and the effectiveness of the work environment. Measuring the degree of perception of nurses is important because it shows how the policies determined by the institution affect the effectiveness of the implementation of the policies by the managers and the behavior of the nurses. Managers and nurses perceive management practices differently from each other according to their experiences, opinions, and feelings. For the managers to achieve common goals with the nurses, they need to understand the nurses' behavior and learn the nurses' perceptions. If nurses perceive their leader's management effectiveness negatively, their morale, attitude, and performance are negatively affected. The degree of perception reveals the managers' strengths and weaknesses, opportunities and threats¹⁰. When the literature studies are examined, there are few studies indicating the role of nurse leaders in pandemics. No study was found on nurses' perceptions of their managers in pandemics.

The study aimed to evaluate the perception of nurse managers' practices by nurses in pandemic management such as resource management, organization, communication, psychosocial, care training, and decision-making practices based on the COVID-19 Pandemic.

METHODS

This is a quantitative, cross-sectional study. It was conducted accredited private hospital and a public hospital involving 182 nurses who provided care to patients with COVID-19 in Türkiye. The first-line managers are referred to as the nurse managers.

The private hospital has 336 beds and 300 full-time nurses. 36 of the beds and 9 of the intensive care unit beds were reserved for patients infected with the COVID-19 virus. Nurses who are caring for patients with COVID-19 are 70. The number of beds allotted to patients with Covid in the public hospital is 200 and the number of full-time nurses is 300. As the workloads increased, both hospital nurses were recruited from other services for assistance. A web-based online questionnaire was applied to collect data in October-November 2021. The questionnaire developed by González-Gil et al.¹¹ with dimensions of organization, decision-making, communication, relationship, and psycho-socio-emotional. In addition to the existing dimensions were added new dimensions of human resource management, resource management, and care training (Table 1).

The data collection forms include questions on socio-demographic and occupational variables. The questionnaire consisted of 6 redesigned dimensions: 1) Human resources management 2) Organization 3) Managers' communication and relationship with nurses 4) Psycho-emotional state 5) Resource management 6) Care-training 7) Decision making and 34 sub-dimensions. 4-point Likert was used; from never 1 to always 4. Scores from the questionnaire range from 1 to 4. The scores obtained by categorized as low, medium, and high. After the classification process, 1-2 points indicate low, 2.01-3 points medium, and 3.01-4 points indicate high perception level.

The translation of the questionnaire was evaluated by three experts who are bilingual in Turkish and English. A pilot study (n=23) was conducted to evaluate a new questionnaire among the target nurses. Measures of internal consistency were ensured using Cronbach's alpha. The validity of the questionnaire is 0.926, dimensions were 0.662, respectively; 0.731; 0.691;0.818; 0.538; 0.572.

Variables		n (%)			
	17-21	12 (6.6)			
Age (years)	22-25	76 (41.8)			
Age (years)	26-29	50 (27.4)			
	≥30	44 (24.2)			
2	Female	131(72)			
Sex	Male	51(28)			
	Vocational high school	40(22)			
Education	Associate degree	18(9.9)			
Education	Bachelor's degree	96(52.7)			
	Master's degree	28(15.4)			
	1-2	65 (35.7)			
	3-5	40 (22.0)			
Years of nursing experiences	6-10	39 (21.4)			
CAPELIE 1063	11-15	24 (13.2)			
	≥15 yıl	14 (7.7)			
Does your child go to kindergarten? (n=28)	Yes	7(25)			
	No	21(75)			
Do you have a	Yes	27(14.8)			
chronic disease?	No	155(85.2)			
Have you got	Yes	77(42.3)			
coronavirus?	No	105(57.7)			
	1-2	65 (35.7)			
	3-5	40 (22.0)			
Nursing years of experience	6-10	39 (21.4)			
experience	11-15	24 (13.2)			
	≥15 yıl	14 (7.7)			
What type of hospital	Public	112 (61.5)			
do you work in?	Privacy	70 (38.5)			
	Unit	63 (34.6)			
	Operating rooms	2 (1.1)			
What type of	Policlinic	13 (7.2)			
medical specialty do you work in?	Intensive care units	69 (37.9)			
	Emergency	18 (9.9)			
	Others	17 (9.3)			
Change of	Yes	94 (51.6)			
workspace?	No	88 (48.4)			
	Emergency department	6 (6.4)			
Caring for patients with Covid-19 the field you work in?	Intensive care unit	52 (55.3)			
	Units	32 (34.0)			
	Poliklinik	4 (4.3)			

 Table 1: Description of variables of personal and professional characterization of nurses

The Number Cruncher Statistical System, 2007 program for statistical analysis and descriptive statistical methods (mean, standard deviation, median) were used to evaluate the data. Compliance of quantitative data with normal distribution was evaluated by the Shapiro-Wilk test and the graphical evaluations. Mann Whitney U and the Kruskal Wallis tests were used for two, three, or more group comparisons of quantitative data that did not show normal distribution, and the Bonferroni-Dunn test was used for pairwise comparisons. Significance was evaluated at p<0.05.

The study was approved by the Istanbul Yeni Yüzyıl University non-interventional Health Sciences Research Ethics Committee (01.02.2021 2021/02-575). Informed consent was obtained from the participants.

RESULTS

Demographic, occupational, and job characteristics of the nurses in this study were examined. Table 1 shows 182 nurses working in public and private hospitals. Most of the nurses were women with only 51 men taking part. A small proportion (24.2%) were middle-aged adults, more than half (52.7%) had a bachelor's degree, only (26.9%) were married, (15.4%) had children, 14.8%) had a chronic disease, and half (42.3%) had been infected with the COVID- 19 virus.

Throughout the pandemic, more than half of nurses (51.6 %) had their work area changed; (6.4%) were in the emergency department, (55.3%) were in the intensive care unit, (34.0%) were in the service and (4.3%) were in the polyclinic.

All nurses perceive the management practices of their managers at a moderate level. The human resource management dimension score average is 2.41 ± 0.51 . The nurses perceive resource management practices as moderate (64.3%). The average score of the organization is 2.74 ± 0.54 . They perceive the organizational practices of manager nurses as low (36.3%), and moderate (48.9%). The resource management dimension average score is 2.79 ± 0.72 . The perception of resource management practices as medium (78.6%). Care-training dimension average score is 2.49 ± 0.72 . The nurses perceive these practices as medium (60.4%). The communication and relationship with the team dimension average score is 2.29 ± 0.73 . Communication and teamwork skills as moderate (% 56). Psycho-emotional dimension average score is 2.77 ± 0.50 . Psycho-emotional practices are as high (13.7%) (Table 2).

There was no statistically significant difference according to age, gender, and experience (p>0.05) in dimensions scores. The average scores in all age groups show that they perceive management practices at a moderate level. A statistically significant difference was found between psycho-emotional scores and gender (p=0.040; p<0.05). Women's scores were lower than men's. Despite this, the average score obtained by both groups indicates medium-level perception.

The human resources management, organization, and psychoemotional dimension scores do not show a statistically significant difference according to the institution they work for (p>0.05). There was a statistically significant difference between the scores of communications and relationship with the team (p=0.025; p<0.05), resource management (p=0.001; p<0.01), care-training (p=0.011; p<0.05), and decision-making (p=0.004; p< 0.01) according to the institution of employment (Table 3). A statistically significant difference was found between the communication and relationship with the team scores according to the institution (p=0.025; p<0.05). The scores of nurses working in private institutions were higher than those working in public institutions. Despite this, the average score obtained by both groups indicates medium-level perception.

There was a statistically significant difference between the human resources management scores (p=0.005; p<0.01), psychoemotional scores (p=0.004; p<0.01), and decision-making scores (p=0.020; p<0.05) according to work area change during the pandemic (Table 4). The score of nurses who moved to another unit was found to be lower compared to nurses who stayed in the same work area. According to sub-dimensions, nurses' perceptions of management practices had one of the lowest mean values (1.59) for "don't want to make a practice they don't have experience with" and one of the highest mean values (3.10) for "ease of access to their managers (Table 5).

DISCUSSION

Using the COVID-19 pandemic process as a comparison purpose, this descriptive and comparative study will allow us to determine the perceptions of nurses who worked in a public and private hospital in Turkey about the management practices of nurse managers such as resource management, organization, communication, psychosocial, care-training and decision-making practices during the pandemic, as well as to understand the aspects that need to be developed and to improve the work environment in future pandemics.

Table 2: Perception of nurses regarding managers' practices according to dimensions

	ltem number	Min-Max(Median)	$\overline{\mathbf{X}}\pm\mathbf{S}\mathbf{D}$	Cronbach's Alpha
Human resources	7	1.1-3.7 (2.4)	2.41±0.51	
Organization	3	1-3.8 (2.8)	2.74±0.54	
Communication and team relationship	5	1-4 (2.3)	2.29±0.73	
Psycho-Emotional	4	1-4 (2.8)	2.77±0.50	0.92
Resource management	9	1-4 (3)	2.79±0.72	
CaringTraining	4	1-4 (2.7)	2.49±0.72	
Decision making	2	1.2-3.8 (2.3)	2.40±0.40	

Table 3: Perception of nurses regarding managers' practices according to the institution

		Insti	⊳⊳p	
		Public (n=112)		
Human resources management	Min-Mak (Median)	1.1-3.4 (2.4)	1.3-3.7 (2.4)	0.539
	$\overline{X}\pmSD$	2.38±0.49	2.47±0.53	0.539
Organization	Min-Mak (Median)	1-4 (2.7)	1-4 (2.7)	0.004
	$\overline{X}\pmSD$	2.48±0.68	2.50±0.79	0.804
Communication and team relationship	Min-Mak (Median)	1-3.8 (2.8)	1.4-3.8 (2.9)	0.005*
	$\overline{X}\pmSD$	2.67±0.55	2.86±0.51	0.025*
Develo Emotional	Min-Mak (Median)	1-3.8 (2.3)	1-4 (2.3)	0.405
Psycho-Emotional	$\overline{X}\pmSD$	2.23±0.64	2.38±0.85	0.495
Resource management	Min-Mak (Median)	1.2-3.2 (2.3)	1.6-3.8 (2.6)	0.001++
	$\overline{X}\pmSD$	2.31±0.33	2.54±0.46	0.001**
Caring-Training	Min-Mak (Median)	1-3.5 (2.8)	1.8-4 (3)	0.0111
	$\overline{X}\pmSD$	2.69±0.51	2.90±0.47	0.011*
Decision making	Min-Mak (Median)	1-4 (3)	1-4 (3)	0.00.00
	$\overline{X}\pmSD$	2.67±0.65	2.99±0.80	0.004**

^bMann Whitney U Test(*)statistically significant at p^{*}<0.05 p**<0.01

	Change of	ad		
		Yes (n=94)	No (n=88)	°p
Human resourcesmanagement	Min-Max (Median)	1.4-3.4 (2.4)	1.1-3.7 (2.6)	0.005**
	$\overline{X}\pmSD$	2.32±0.44	2.52±0.55	0.005
Organization	Min-Max(Median)	1-4 (2.7)	1-4 (2.7)	0.401
	$\overline{X}\pmSD$	2.45±0.67	2.52±0.78	0.491
Communication and team relationship	Min-Max (Median)	1.4-3.6 (2.8)	1-3.8 (2.9)	0.123
	$\overline{X}\pmSD$	2.70±0.51	2.80±0.58	0.123
Develo Emotional	Min-Max (Median)	1-4 (2.3)	1-4 (2.5)	0.004**
Psycho-Emotional	$\overline{X}\pmSD$	2.13±0.65	2.46±0.78	0.004***
Resource management	Min-Max(Median)	1.3-3.8 (2.3)	1.2-3.6 (2.4)	0.501
	$\overline{X}\pmSD$	2.39±0.39	2.41±0.41	0.561
Caring-Training	Min-Max(Median)	1.5-3.5 (2.8)	1-4 (3)	0.292
	$\overline{X}\pmSD$	2.74±0.46	2.80±0.55	0.283
Decision making	Min-Max (Median)	1-4 (3)	1-4 (3)	0.020*
	$\overline{X}\pmSD$	2.69±0.63	2.90±0.81	0.020*

Table 4: Perception of nurses regarding managers' practices according to the change of workplace

^bMann Whitney U Test*p<0.05**p<0.01

According to the study's findings, managers of nurses working in private and public hospitals have a moderate perception of management practices. In a phenomenological study conducted in Sri Lanka to evaluate the issues faced by 14 nurses caring for COVID-19 patients during the early phase of COVID-19, some participants were very satisfied with their managers and stated that their managers demonstrated positive attitudes¹¹. González-Gil et al.¹² found that nurses in Spain evaluated their managers' activities as ineffective during the COVID-19 pandemic.

In pre-COVID-19 research done in 19 Ghanaian hospitals, 522 nurses rated frontline nurse manager competency as moderate¹³. Researchers in Türkiye showed that nurses' job satisfaction¹⁴, motivation, and commitment¹⁵ are at a medium level and that good managers/leaders are needed to enhance this level. In a study assessing management practice from the perspective of Finnish health center managers, it was determined how 400 nurse managers viewed Finnish center leadership styles, expertise, and skills from their perspective. More than half of the managers stated that their leadership knowledge and skills were adequate or adequate¹⁶. In research by Abd-El Menem et al.¹⁷ in an Egyptian University hospital, 68 nurse managers reported that they thought their conceptual and people skills were at an elevated level, and two-thirds thought they were at a medium level.

This research has demonstrated that there are differences between nurse managers' and nurses' perspectives. The American Hospital Association³ reported that during the pandemic, 55 of nurses faced difficulties in communicating and implementing changing policies, 54% in recruiting inexperienced staff, in-service training programs, and redistributing nurses to areas in need, (50%) in protecting the emotional health of employees, and (47%) in accessing materials.

Despite the shortage of studies, it has been found that in both regular and emergency conditions, nurses have a moderate level of perception of the manager's management procedures¹⁸. Some of the possible causes for this include the fact that nurses do not feel safe in a chaotic and threatening work environment, that they are dissatisfied and unmotivated, and that management does not offer adequate support on issues including communication, respect, and feeling ignored¹⁹ may cause them to perceive management practices at a low level²⁰.

In pandemics, the development of serious complications and the elevated risk of death in nurses with chronic diseases who provide direct care can stress them²¹. According to the study, 77 nurses (42.3%) were infected during the pandemic. 15% of the nurses who worked in two different institutions were diagnosed with a chronic illness. The emergence of major problems and the increased risk of death in nurses who provide direct treatment during pandemics might stress them²². Similar studies conducted in China and Iran found both 51% and 52% of all nurses had diseases, respectively²³. In Mexico, 21% of around 67,000 nurses were infected, compared to 45% of the 60,000 nurses in Iran²⁴.

The fact that nurses often do have longer, more frequent, and direct relationships with patients, may contribute to the high infection rate among nurses. Pathogens spread because there are not enough healthcare workers in hospitals, especially given the low nurse-topatient ratios. Giving priority to education and properly following safety procedures are crucial for the physical and mental health of nurses. Although nurses have more knowledge about COVID-19, Table 5: Perception of nurses regarding managers' practices according to dimensions

n % n n % n % n % n % n % n % n % n % n % n % n % n %	Dimonsions		Never		Sometimes		Usually		ays	
Number of nurses enough for the workload? 52 28,6 66 36,3 54 29,7 10 5,5 2,12,0,89 Providing support to the nurse when needed? 13 7,1 83 45,6 69 37,9 17 9,3 2,420,76 Paid leave when employees show signs of liness? 42 43,2 23,1 7,4 40,7 42 2,31 2,34 40,7 42,8 1,32 40,7 40,7 42 2,31 2,34 40,7 42,8 1,24 40,7 42,8 1,32 40,7 40,7 42 2,31 7,4 40,7 42,8 2,81 2,71 30,8 68 37,4 30 16,5 13 7,1 1,320,92 Is rest time appropriate between shifts? 78 2,86 72 39,8 46 2,53 12 6,6 2,61 30,7 7,7 4,34 31 10,0 2,72,0,81 In team confit for manager any time? 5 2,7 31 17,0 8,7	Dimensions	n	%	n	%	n	%	n	%	Mean±SD
Providing support to the nurse when needed? 13 7.1 83 45.6 69 37.9 17 9.3 2,49:0,76 Paid leave when employees show signs of illness? 42 23,1 52 28,6 69 32,4 29 15,9 2,411,01 Motivation of nurses by managers? 24 13,2 42 23,1 74 40,7 42 23,1 2,42,036 51 2,41,01 74 10,7 42,24,23,1 74 40,7 42 23,1 2,42,036 74 2,65,031 71 1,92,092 13 r1 1,92,092 13 r1 1,92,092 13 71 5,5 62 3,41 79 43,4 31 17,0 2,72,081 In team conflict, the manager at any time? 5 2,7 31 17,0 87 47,8 59 32,4 3,101,07 7 43,4 27 14,8 2,660,81 32,9 74 43,4 27 14,8 2,660,81 32,9 74 43,4 27 14,8 2,660,91 33,5 31,9 2,93,092 2,44 3,	Working more hours than usual since the pandemic started?	22	12,1	103	56,6	44	24,2	13	7,1	2,26±0,76
Paid leave when employees show signs of liness? 42 23.1 52 28.6 59 32.4 29 15.9 2.411.01 Motivation of nurses by managers? 24 13.2 42 23.1 74 40.7 42 23.1 2.745.096 The team approach takes into account? 9 4.9 37 20.3 89 48.9 47 28.6 2.961.04 Is rest time appropriate between shifts? 72 39.0 68 37.4 30 68 2.9 13.7 2.550.01 Providing food and drinking to prevent physical fatigue during working noturs? 10 5.5 62 34.1 79 43.4 59 32.4 3.102.7 2.721.081 Reaching out to the manager at any time? 5 2.7 31 17.0 87 47.8 59 32.4 3.102.7 14.8 2.661.081 Does your manager ask about the needs of threa care tam? 13 7.1 45 2.47 66 36.5 58 31.9 2.931.032 Have any problems with communication? 31 17.0 14 62.6 35.7	Number of nurses enough for the workload?	52	28,6	66	36,3	54	29,7	10	5,5	2,12±0,89
Motivation of nurses by managers? 24 13.2 42 23.1 74 40,7 42 23.1 2,742.036 The team approach takes into account? 9 4.9 37 20.3 89 48.9 47 25.8 2,960.081 Do managers reward nurses' performance? 71 39.0 68 37.4 30 16.5 13 7.1 1,925.032 Is rest time appropriate between shifts? 28 15.4 51 28.0 78 42.9 25 13.7 2,555.031 In team conflict: the manager at any time? 52 2.7 31 170 87 47.8 59 32.4 3,102.077 Working relations between the doctor and nurse good are good? 12 6.6 64 35.2 79 43.4 27 14.8 2,661.081 Dess your manager ask about the meds of the care team? 13 17.0 14 62.6 32 17.6 5 2.7 2,061.067 Can you easily talk to your manager about your views on problem swith communication? 13 17.0 14 62.6 35.7 15 8.2	Providing support to the nurse when needed?	13	7,1	83	45,6	69	37,9	17	9,3	2,49±0,76
The team approach takes into account? 9 4.9 37 20.3 89 48.9 47 25.8 2.966.081 Do managers reward nurses' performance? 71 39.0 68 37.4 30 16.5 13 7.1 1.925.092 Is rest time appropriate between shifts? 28 15.4 51 28.0 78 42.9 25 13.7 2.555.01 Providing lood and drinking to prevent physical faligue during working hours? 52 2.86 72 39.6 46 25.3 12 6.6 2.102.081 In team conflict, the manager's application of solutions to the underlying problem? 5 2.7 31 170 87 47.8 59 32.4 3.104.077 Working relations between the doctor and nurse good are good? 12 6.6 64 35.2 79 43.4 2.7 14.8 2.665.081 Does your manager ask about the needs of the care team? 13 7.1 45 24.7 66 35.7 15 8.2 2.865.087 Can you askit like your manager ask about the meanager and relax? 30 16.5 49 26.9	Paid leave when employees show signs of illness?	42	23,1	52	28,6	59	32,4	29	15,9	2,41±1,01
Do managers reward nurses' performance? 71 39.0 68 37.4 30 16.5 13 7.1 1.92e.0.92 Is rest time appropriate between shifts? 28 15.4 51 28.0 78 42.9 25 13.7 2,553.091 Providing food and drinking to prevent physical fatigue during working hours? 52 28.6 72 39.6 46 25.3 12 6.6 2,102.089 In team conflict, the manager at any time? 5 2.7 31 17.0 87 47.8 59 32.4 3,102.077 Working relations between the doctor and nurse good are good? 12 6.6 64 35.2 79 43.4 27 14.8 2,661.081 Does your manager ask about the needs of the care team? 13 7.1 45 2.47 66 36.3 58 31.9 2,937.92 2,871.087 A tem be polycho-emotional needs of nurses answered? 33 18.1 69 379 65 357 15 8.2 2,416.087 A te the polych	Motivation of nurses by managers?	24	13,2	42	23,1	74	40,7	42	23,1	2,74±0,96
Is rest time appropriate between shifts? 28 15,4 51 28,0 78 42,9 25 13,7 2,550,03 Providing food and drinking to prevent physical fatigue during working hours? 52 28,6 72 39,6 46 25,3 12 6,6 2,10+0,89 In team conflict, the manager's application of solutions to the underlying problem? 5 2,7 31 17,0 87 47,8 59 32,4 3,10+0,77 Working relations between the doctor and nurse good are good? 12 6,6 64 35,2 79 43,4 27 14,8 2,66±0,81 Does your manager ask about the needs of the care team? 13 17,0 114 62,6 32 17,6 5 2,7 2,65±0,67 Can you easily talk to your manager about your views on problems such communication? 31 17,0 14,4 24,2 67 36,8 54 29,7 2,87±0,95 7 Are the psycho-emotional needs of nurses answered? 33 18,1 69 37,9 65 35,7 15 8,2 2,49±0,97 Opportunity to share the feelings with the manager and relax?	The team approach takes into account?	9	4,9	37	20,3	89	48,9	47	25,8	2,96±0,81
Providing food and drinking to prevent physical fatigue during working hours? 52 28.6 72 39.6 46 25.3 12 6.6 2.10±0.89 In team conflict: the manager's application of solutions to the underlying problem? 10 5.5 6.2 34.1 79 43.4 31 17.0 2.72±0.81 Reaching out to the manager at any time? 5 2.7 31 17.0 87 47.8 59 32.4 3.10±0.77 Working relations between the doctor and nurse good are good? 12 6.6 64 35.2 79 43.4 27 14.8 2.66±0.81 Does your manager ask about the needs of the care team? 13 7.1 45 24.7 66 36.3 58 31.9 2.38±0.92 Are way problems with communication? 31 17.0 114 62.6 32 176 5 2.7 2.8±0.87 Are the psycho-emotional needs of nurses answered? 33 18.1 69 379 65 35.7 15 8.2 2.4±0.87 Can you	Do managers reward nurses' performance?	71	39,0	68	37,4	30	16,5	13	7,1	1,92±0,92
working hours? 11 12 28.6 72 39.6 46 23.3 12 6,0 2,102.09 In team conflict; the manager's application of solutions to the underlying problem? 5 2,7 31 17,0 87 47.8 59 32.4 3,10±0,77 Working relations between the doctor and nurse good are good? 12 6,6 64 35.2 79 43.4 27 14.8 2,66±0,81 Does your manager ask about the needs of the care team? 13 7,1 45 24,7 66 36.3 58 31,9 2,93±0,92 Have any problems with communication? 31 170 114 62.6 32 17.6 5 2,7 2,68±0,67 Can you easily tak to your manager about your views on problems such as psychosocial, personal safety, or protective equipment? 17 9,3 44 24,2 67 36.8 54 29,7 2,87±0,95 Are the psychosocial, personal safety. 17 9,3 44 24,2 67 36.8 31 18,1 29 65 35,7 15 8,2 2,84±0,97 Are the astrate	Is rest time appropriate between shifts?	28	15,4	51	28,0	78	42,9	25	13,7	2,55±0,91
underlying problem? 10 5.3 62 34,1 79 43,4 31 10,0 2,720,81 Reaching out to the manager at any time? 5 2,7 31 17,0 87 478 59 32,4 31,00,77 Working relations between the doctor and nurse good? 12 6.6 64 35,2 79 43,4 27 14,8 2,6640,617 Does your manager ask about the needs of the care team? 13 7,1 45 24,7 66 36,3 58 31,9 2,93±0,92 Have any problems with communication? 31 17,0 114 62,6 32 17,6 5 2,7 2,06±0,67 Can you easily talk to your manager about your views on problems with communication? 17 9,3 44 24,2 67 36,8 54 29,7 2,87±0,95 07 16,5 49 26,9 70 38,5 33 18,1 2,6±0,90 Opportunity to share the feelings with the manager and relax? 30 16,5 49 26,9 70 38,5 33 18,1 2,6±0,90 2,7±0,95		52	28,6	72	39,6	46	25,3	12	6,6	2,10±0,89
Working relations between the doctor and nurse good are good?126.66435.27943.42714.82.66±0.81Does your manager ask about the needs of the care team?137.14524.76636.35831.92.93±0.92Have any problems with communication?3117011462.63217.652.72.06±0.67Can you easily talk to your manager about your views on problems such as psychosocial, personal safety,179.34424.26736.85429.72.87±0.95Are the psycho-emotional needs of nurses answered?3318.16937.96535.7158.22.34±0.87Has a strategy been developed to ameliorate the emotional burden of nurses?5429.77742.33720.3147.72.06±0.90Opportunity to share the feelings with the manager and relax?3016.54926.97038.53318.12.58±0.97Can you sleep easily and well?2111.55329.15932.44926.92.75±0.98Are the materials you use of good quality?2111.663.74122.5126.6137.11.57±0.90Providing adequate food by the hospital?16630.86033.05228.6147.72.13±0.44Providing accommodation close to the hospital2614.34926.97440.73318.1 </td <td>•</td> <td>10</td> <td>5,5</td> <td>62</td> <td>34,1</td> <td>79</td> <td>43,4</td> <td>31</td> <td>17,0</td> <td>2,72±0,81</td>	•	10	5,5	62	34,1	79	43,4	31	17,0	2,72±0,81
Does your manager ask about the needs of the care team? 13 7.1 45 24.7 66 36.3 58 31.9 2.93±0.92 Have any problems with communication? 31 17.0 114 62.6 32 17.6 5 2.7 2.06±0.67 Can you easily talk to your manager about your views on problems equipment? 33 18.1 69 37.9 65 35.7 15 8.2 2.87±0.95 Are the psycho-emotional needs of nurses answered? 33 18.1 69 37.9 65 35.7 15 8.2 2.94±0.87 Has a strategy been developed to ameliorate the emotional burden of nurses? 30 16.5 49 26.9 70 38.5 33 18.1 2.58±0.97 Can you sleep easily and well? 46 25.3 73 40.1 48 26.4 15 8.2 2.18±0.91 Are the materials you use of good quality? 21 11.5 53 29.1 59 32.4 49 26.9 2.75±0.98 Are antiseptic solutions enough? 8 4.4 26 14.3 63 36.6 13.3	Reaching out to the manager at any time?	5	2,7	31	17,0	87	47,8	59	32,4	3,10±0,77
Have any problems with communication?3117011462.63217652.72.06±0.67Can you easily talk to your manager about your views on problems such as psychosocial, personal safety, or protective equipment?179.34424.26736.85429.72.87±0.95Are the psycho-emotional needs of nurses answered?3318.16937.96535.7158.22.34±0.87Has a strategy been developed to ameliorate the emotional burden of nurses?5429.77742.33720.3147.72.06±0.90Opportunity to share the feelings with the manager and relax?3016.54926.97038.53318.12.58±0.97Can you sleep easily and well?4625.37340.14826.4158.22.18±0.91Are the materials you use of good quality?2111.55329.15932.44926.92.75±0.98Are antiseptic solutions enough?84.42614.36334.68546.73.24±0.60Is your uniform washed at home?311704323.62614.38245.12.87±1.17Opportunity for the nurses to take a shower in the hospital?5630.86033.05228.6147.72.13±0.94Providing adequate food by the hospital?5630.86033.05228.6147.72.13±0.94	Working relations between the doctor and nurse good are good?	12	6,6	64	35,2	79	43,4	27	14,8	2,66±0,81
Can you easily talk to your manager about your views on problems such as psychosocial, personal safety, or protective equipment?179,34424,26736,85429,72,87±0,95Are the psycho-emotional needs of nurses answered?3318,16937,96535,7158,22,34±0,87Has a strategy been developed to ameliorate the emotional burden of nurses?5429,77742,33720,3147,72,06±0,90Opportunity to share the feelings with the manager and relax?3016,54926,97038,53318,12,58±0,97Can you sleep easily and well?4625,37340,14826,4158,22,18±0,91Are the materials you use of good quality?2111,55329,15932,44926,92,75±0,98Are antiseptic solutions enough?84,42614,36334,68546,73,24±0,86Is your uniform washed at home?3117,04323,62614,38245,12,87±1,17Opportunity for the nurses to take a shower in the hospital?5630,86033,05228,6147,72,13±0,94Providing adequate food by the hospital?5630,86034,05228,6147,72,13±0,94Providing adequate food by the hospital?5630,86033,05228,6147,72,13±0,94 <td>Does your manager ask about the needs of the care team?</td> <td>13</td> <td>7,1</td> <td>45</td> <td>24,7</td> <td>66</td> <td>36,3</td> <td>58</td> <td>31,9</td> <td>2,93±0,92</td>	Does your manager ask about the needs of the care team?	13	7,1	45	24,7	66	36,3	58	31,9	2,93±0,92
problems such as psychosocial, personal safety, or protective equipment? 17 9,3 44 24,2 67 36,8 54 29,7 2,87±0,95 Are the psycho-emotional needs of nurses answered? 33 18,1 69 37,9 65 35,7 15 8,2 2,34±0,87 Has a strategy been developed to ameliorate the emotional burden of nurses? 54 29,7 77 42,3 37 20,3 14 7,7 2,06±0,90 Opportunity to share the feelings with the manager and relax? 30 16,5 49 26,9 70 38,5 33 18,1 2,58±0,97 Can you sleep easily and well? 46 25,3 73 40,1 48 26,4 15 8,2 2,18±0,91 Are the materials you use of good quality? 21 11,5 53 29,1 59 32,4 49 26,9 2,75±0,98 Are antiseptic solutions enough? 8 4,4 26 14,3 63 34,6 85 46,7 3,24±0,86 Is your uniform washed at home? 31 17,0 43 26,6 14 7,7 2,13±0,	Have any problems with communication?	31	17,0	114	62,6	32	17,6	5	2,7	2,06±0,67
Has a strategy been developed to ameliorate the emotional burden of nurses?5429,77742,33720,3147,72,06 \pm 0,90Opportunity to share the feelings with the manager and relax?3016,54926,97038,53318,12,58 \pm 0,97Can you sleep easily and well?4625,37340,14826,4158,22,18 \pm 0,91Are the materials you use of good quality?2111,55329,15932,44926,92,75 \pm 0,98Are antiseptic solutions enough?84,42614,36334,68546,73,24 \pm 0,89Is your uniform washed at home?3117,04323,62614,38245,12,87 \pm 1,17Opportunity for the nurses to take a shower in the hospital?11663,74122,5126,6137,11,57 \pm 0,99Providing adequate food by the hospital?5630,86033,05228,6147,72,13 \pm 0,94Providing for the needs of managers?94,94424,27340,15630,82,97 \pm 3,18,12,63 \pm 0,94Providing for the needs of managers?94,94424,27340,15630,82,97 \pm 3,94Have you had any problems in terms of support services you work for?8446,26234,12513,7116,01,80 \pm 0,90Is patient care met in a	problems such as psychosocial, personal safety,	17	9,3	44	24,2	67	36,8	54	29,7	2,87±0,95
burden of nurses?5429,77742,33720,3147,72,06±0,90Opportunity to share the feelings with the manager and relax?3016,54926,97038,53318,12,58±0,97Can you sleep easily and well?4625,37340,14826,4158,22,18±0,91Are the materials you use of good quality?2111,55329,15932,44926,92,75±0,98Are antiseptic solutions enough?84,42614,36334,68546,73,24±0,66Is your uniform washed at home?311704323,62614,38245,12,87±1,17Opportunity for the nurses to take a shower in the hospital?11663,74122,5126,6137,11,57±0,90Providing accommodation close to the hospital?16630,86033,05228,6147,72,13±0,94Providing for the needs of managers?94,94424,27340,15630,82,97±0,87Have you had any problems in terms of support services (laundry-waste management, cleaning, diet, etc.) in the service you work for?8446,26234,12513,7116,01,80±0,90Is patient care met in a timely and appropriate manner?31,63418,79049,55530,23,08±0,74Established infected patient care proto	Are the psycho-emotional needs of nurses answered?	33	18,1	69	37,9	65	35,7	15	8,2	2,34±0,87
Can you sleep easily and well?4625,37340,14826,4158,22,18±0,91Are the materials you use of good quality?2111,55329,15932,44926,92,75±0,98Are antiseptic solutions enough?84,42614,36334,68546,73,24±0,86Is your uniform washed at home?3117,04323,62614,38245,12,87±1,17Opportunity for the nurses to take a shower in the hospital?11663,74122,5126,6137,11,57±0,90Providing adequate food by the hospital?5630,86033,05228,6147,72,13±0,94Providing accommodation close to the hospital2614,34926,97440,73318,12,63±0,94Providing for the needs of managers?94,94424,27340,15630,82,97±0,87Have you had any problems in terms of support services (laundry-waste management, cleaning, diet, etc.) in the service8446,26234,12513,7116,01,80±0,90you work for?126,62513,75530,23,08±0,74Established infected patient care protocols?126,62513,75530,23,08±0,74Established infected patient care?10758,84826,42111,563,31,		54	29,7	77	42,3	37	20,3	14	7,7	2,06±0,90
Are the materials you use of good quality?2111,55329,15932,44926,92,75 \pm 0,98Are antiseptic solutions enough?84,42614,36334,68546,73,24 \pm 0,86Is your uniform washed at home?3117,04323,62614,38245,12,87 \pm 1,17Opportunity for the nurses to take a shower in the hospital?11663,74122,5126,6137,11,57 \pm 0,90Providing adequate food by the hospital?5630,86033,05228,6147,72,13 \pm 0,94Providing accommodation close to the hospital2614,34926,97440,73318,12,63 \pm 0,94Providing for the needs of managers?94,94424,27340,15630,82,97 \pm 0,87Have you had any problems in terms of support services (laundry-waste management, cleaning, diet, etc.) in the service you work for?8446,26234,12513,7116,01,80 \pm 0,90Is patient care met in a timely and appropriate manner?31,63418,79049,55530,23,08 \pm 0,92Being asked to make a practice with no experience?10758,84826,42111,563,31,5 \pm 0,94Providing service training on infected patient care?147,72212,16334,68345,63,18 \pm 0,93 </td <td>Opportunity to share the feelings with the manager and relax?</td> <td>30</td> <td>16,5</td> <td>49</td> <td>26,9</td> <td>70</td> <td>38,5</td> <td>33</td> <td>18,1</td> <td>2,58±0,97</td>	Opportunity to share the feelings with the manager and relax?	30	16,5	49	26,9	70	38,5	33	18,1	2,58±0,97
Are antiseptic solutions enough?84,42614,36334,68546,73,24±0,86Is your uniform washed at home?3117,04323,62614,38245,12,87±1,17Opportunity for the nurses to take a shower in the hospital?11663,74122,5126,6137,11,57±0,90Providing adequate food by the hospital?5630,86033,05228,6147,72,13±0,94Providing accommodation close to the hospital2614,34926,97440,73318,12,63±0,94Providing for the needs of managers?94,94424,27340,15630,82,97±0,87Have you had any problems in terms of support services8446,26234,12513,7116,01,80±0,90(laundry-waste management, cleaning, diet, etc.) in the service8446,26234,12530,29049,53,23±0,92Is patient care met in a timely and appropriate manner?31,63418,79049,55530,23,08±0,74Established infected patient care protocols?126,62513,75530,29049,53,23±0,92Being asked to make a practice with no experience?147,72212,16334,68345,63,18±0,93The manager's ability to make quick decisions and implement them,?7 <td>Can you sleep easily and well?</td> <td>46</td> <td>25,3</td> <td>73</td> <td>40,1</td> <td>48</td> <td>26,4</td> <td>15</td> <td>8,2</td> <td>2,18±0,91</td>	Can you sleep easily and well?	46	25,3	73	40,1	48	26,4	15	8,2	2,18±0,91
Is your uniform washed at home?3117,04323,62614,38245,12,87 \pm 1,17Opportunity for the nurses to take a shower in the hospital?11663,74122,5126,6137,11,57 \pm 0,90Providing adequate food by the hospital?5630,86033,05228,6147,72,13 \pm 0,94Providing accommodation close to the hospital2614,34926,97440,73318,12,63 \pm 0,94Providing for the needs of managers?94,94424,27340,15630,82,97 \pm 0,87Have you had any problems in terms of support services (laundry-waste management, cleaning, diet, etc.) in the service you work for?8446,26234,12513,7116,01,80 \pm 0,90Is patient care met in a timely and appropriate manner?31,63418,79049,55530,23,08 \pm 0,74Established infected patient care protocols?126,62513,75530,29049,53,23 \pm 0,92Providing service training on infected patient care?147,72212,16334,68345,63,18 \pm 0,93The manager's ability to make quick decisions and implement them,?73,84926,98747,83921,42,87 \pm 0,79	Are the materials you use of good quality?	21	11,5	53	29,1	59	32,4	49	26,9	2,75±0,98
Opportunity for the nurses to take a shower in the hospital?116 $63,7$ 41 $22,5$ 12 $6,6$ 13 $7,1$ $1,57\pm0,90$ Providing adequate food by the hospital? 56 $30,8$ 60 $33,0$ 52 $28,6$ 14 $7,7$ $2,13\pm0,94$ Providing accommodation close to the hospital 26 $14,3$ 49 $26,9$ 74 $40,7$ 33 $18,1$ $2,63\pm0,94$ Providing for the needs of managers? 9 $4,9$ 44 $24,2$ 73 $40,1$ 56 $30,8$ $2,97\pm0,87$ Have you had any problems in terms of support services (laundry-waste management, cleaning, diet, etc.) in the service you work for? 84 $46,2$ 62 $34,1$ 25 $13,7$ 11 $6,0$ $1,80\pm0,90$ Is patient care met in a timely and appropriate manner? 3 $1,6$ 34 $18,7$ 90 $49,5$ 55 $30,2$ $3,08\pm0,74$ Established infected patient care protocols? 12 $6,6$ 25 $13,7$ 55 $30,2$ $3,08\pm0,74$ Providing service training on infected patient care? 107 $58,8$ 48 $26,4$ 21 $11,5$ 6 $3,3$ $1,59\pm0,82$ Providing service training on infected patient care? 14 $7,7$ 22 $12,1$ 63 $34,6$ 83 $45,6$ $3,18\pm0,93$ The manager's ability to make quick decisions and implement them,? 7 $3,8$ 49 $26,9$ 87 $47,8$ 39 $21,4$ $2,87\pm0,$	Are antiseptic solutions enough?	8	4,4	26	14,3	63	34,6	85	46,7	3,24±0,86
Providing adequate food by the hospital?5630,86033,05228,6147,72,13 \pm 0,94Providing accommodation close to the hospital2614,34926,97440,73318,12,63 \pm 0,94Providing for the needs of managers?94,94424,27340,15630,82,97 \pm 0,87Have you had any problems in terms of support services (laundry-waste management, cleaning, diet, etc.) in the service you work for?8446,26234,12513,7116,01,80 \pm 0,90Is patient care met in a timely and appropriate manner?31,63418,79049,55530,23,08 \pm 0,74Established infected patient care protocols?126,62513,75530,29049,53,23 \pm 0,92Providing service training on infected patient care?147,72212,16334,68345,63,18 \pm 0,93The manager's ability to make quick decisions and implement them,?73,84926,98747,83921,42,87 \pm 0,79	Is your uniform washed at home?	31	17,0	43	23,6	26	14,3	82	45,1	2,87±1,17
Providing accommodation close to the hospital2614,34926,97440,73318,1 $2,63\pm0,94$ Providing for the needs of managers?94,944 $24,2$ 7340,15630,8 $2,97\pm0,87$ Have you had any problems in terms of support services (laundry-waste management, cleaning, diet, etc.) in the service you work for?84 $46,2$ 62 $34,1$ 25 $13,7$ 11 $6,0$ $1,80\pm0,90$ Is patient care met in a timely and appropriate manner?3 $1,6$ 34 $18,7$ 90 $49,5$ 55 $30,2$ $3,08\pm0,74$ Established infected patient care protocols?12 $6,6$ 25 $13,7$ 55 $30,2$ $3,08\pm0,74$ Being asked to make a practice with no experience?107 $58,8$ 48 $26,4$ 21 $11,5$ 6 $3,3$ $1,59\pm0,82$ Providing service training on infected patient care?14 $7,7$ 22 $12,1$ 63 $34,6$ 83 $45,6$ $3,18\pm0,93$ The manager's ability to make quick decisions and implement them,? 7 $3,8$ 49 $26,9$ 87 $47,8$ 39 $21,4$ $2,87\pm0,79$	Opportunity for the nurses to take a shower in the hospital?	116	63,7	41	22,5	12	6,6	13	7,1	1,57±0,90
Providing for the needs of managers?94,94424,27340,15630,82,97 \pm 0,87Have you had any problems in terms of support services (laundry-waste management, cleaning, diet, etc.) in the service you work for?8446,26234,12513,7116,01,80 \pm 0,90Is patient care met in a timely and appropriate manner?31,63418,79049,55530,23,08 \pm 0,74Established infected patient care protocols?126,62513,75530,29049,53,23 \pm 0,92Being asked to make a practice with no experience?10758,84826,42111,563,31,59 \pm 0,82Providing service training on infected patient care?147,72212,16334,68345,63,18 \pm 0,93The manager's ability to make quick decisions and implement them,?73,84926,98747,83921,42,87 \pm 0,79	Providing adequate food by the hospital?	56	30,8	60	33,0	52	28,6	14	7,7	2,13±0,94
Have you had any problems in terms of support services (laundry-waste management, cleaning, diet, etc.) in the service 84 $46,2$ 62 $34,1$ 25 $13,7$ 11 $6,0$ $1,80\pm0,90$ Is patient care met in a timely and appropriate manner? 3 $1,6$ 34 $18,7$ 90 $49,5$ 55 $30,2$ $3,08\pm0,74$ Established infected patient care protocols? 12 $6,6$ 25 $13,7$ 55 $30,2$ 90 $49,5$ $3,23\pm0,92$ Being asked to make a practice with no experience? 107 $58,8$ 48 $26,4$ 21 $11,5$ 6 $3,3$ $1,59\pm0,82$ Providing service training on infected patient care? 14 $7,7$ 22 $12,1$ 63 $34,6$ 83 $45,6$ $3,18\pm0,93$ The manager's ability to make quick decisions and implement them,? 7 $3,8$ 49 $26,9$ 87 $47,8$ 39 $21,4$ $2,87\pm0,79$	Providing accommodation close to the hospital	26	14,3	49	26,9	74	40,7	33	18,1	2,63±0,94
(laundry-waste management, cleaning, diet, etc.) in the service you work for? 84 $46,2$ 62 $34,1$ 25 $13,7$ 11 $6,0$ $1,80\pm0,90$ Is patient care met in a timely and appropriate manner? 3 $1,6$ 34 $18,7$ 90 $49,5$ 55 $30,2$ $3,08\pm0,74$ Established infected patient care protocols? 12 $6,6$ 25 $13,7$ 55 $30,2$ 90 $49,5$ $3,23\pm0,92$ Being asked to make a practice with no experience? 107 $58,8$ 48 $26,4$ 21 $11,5$ 6 $3,3$ $1,59\pm0,82$ Providing service training on infected patient care? 14 $7,7$ 22 $12,1$ 63 $34,6$ 83 $45,6$ $3,18\pm0,93$ The manager's ability to make quick decisions and implement them,? 7 $3,8$ 49 $26,9$ 87 $47,8$ 39 $21,4$ $2,87\pm0,79$	Providing for the needs of managers?	9	4,9	44	24,2	73	40,1	56	30,8	2,97±0,87
Established infected patient care protocols? 12 6,6 25 13,7 55 30,2 90 49,5 3,23±0,92 Being asked to make a practice with no experience? 107 58,8 48 26,4 21 11,5 6 3,3 1,59±0,82 Providing service training on infected patient care? 14 7,7 22 12,1 63 34,6 83 45,6 3,18±0,93 The manager's ability to make quick decisions and implement them,? 7 3,8 49 26,9 87 47,8 39 21,4 2,87±0,79	(laundry-waste management, cleaning, diet, etc.) in the service	84	46,2	62	34,1	25	13,7	11	6,0	1,80±0,90
Being asked to make a practice with no experience? 107 58,8 48 26,4 21 11,5 6 3,3 1,59±0,82 Providing service training on infected patient care? 14 7,7 22 12,1 63 34,6 83 45,6 3,18±0,93 The manager's ability to make quick decisions and implement them,? 7 3,8 49 26,9 87 47,8 39 21,4 2,87±0,79	Is patient care met in a timely and appropriate manner?	3	1,6	34	18,7	90	49,5	55	30,2	3,08±0,74
Providing service training on infected patient care? 14 7,7 22 12,1 63 34,6 83 45,6 3,18±0,93 The manager's ability to make quick decisions and implement them,? 7 3,8 49 26,9 87 47,8 39 21,4 2,87±0,79	Established infected patient care protocols?	12	6,6	25	13,7	55	30,2	90	49,5	3,23±0,92
The manager's ability to make quick decisions and implement them,? 7 3,8 49 26,9 87 47,8 39 21,4 2,87±0,79	Being asked to make a practice with no experience?	107	58,8	48	26,4	21	11,5	6	3,3	1,59±0,82
implement them,?	Providing service training on infected patient care?	14	7,7	22	12,1	63	34,6	83	45,6	3,18±0,93
Providing necessary support from the administration? 15 8,2 45 24,7 82 45,1 40 22,0 2,81±0,87		7	3,8	49	26,9	87	47,8	39	21,4	2,87±0,79
	Providing necessary support from the administration?	15	8,2	45	24,7	82	45,1	40	22,0	2,81±0,87

SD=Standart Deviation

studies are showing that they have lower knowledge scores in practices²⁵. In a study conducted with 4854 healthcare professionals working in 44 hospitals in Iran, nurses comprised most infected cases (53.3%)²⁴. Data from a study conducted in about 2% of the workers did not use masks and 19% did not use gloves as safety precautions to protect against COVID-19 infection²². For personnel collaborating directly with patients, the use of personal protective equipment (PPE) is vital in reducing infection rates.

According to the study's findings, the majority of nurses (55.3%) were working in intensive care units throughout the pandemic, which caused a change in their working environment in 51.6% of nurses. More than half of the 813 health professionals in Jensen et al.²⁶ 's study, which produced comparable findings, changed jobs during the crisis. Of these, 57% were nurses. A lot of nurses had to deal with new job duties that were different from their typical duties. Flexibility is a critical skill for organizations because it helps them deal with challenges and uncertainty and adjust to changing conditions According to reports, forced relocations can result in stress, frustration, a loss of passion, and practical problems (childcare, transportation, etc.). To prevent the spread of COVID-19, nurses must adapt to their new workplace. Patient safety can be increased and nurse stress can be decreased by using a strategy centered on individual skills rather than the quantity of nurses27. If the organization respects its employees and how they work and can be flexible in working conditions, employees' perceptions of their organizations' support and the negative impact of an imposed relocation may all diminish²⁸.

Effective nurse managers play a key role in creating a positive working environment for nurses and increasing nurses' job satisfaction. According to the results of the study, nurses working in only one private institution perceived management practices in terms of communication and relationship with the team, care training, and decision-making more positively than those working in one public institution. Employees at private hospitals have a higher degree of perception of the work environment supported by the nurse managers than other hospital employees²⁹. Suppose the manager's creation of a healthy work environment is considered as evidence for this conclusion. The fact that private institutions consistently provide and sustain a competitive advantage in the market relative to public institutions can be used to explain these findings.

When the results of the study were analyzed according to the survey subheadings, including the management practices of nurse managers, 25.8% of the nurses perceived the human resource management practices of nurse managers as low and 64.3% as moderate. Inadequate staffing in the nursing profession is a chronic problem and has worsened with the COVID-19 pandemic. In the present study, approximately 29% of nurses perceived the number of nurses as insufficient and 36.3% as sometimes insufficient according to their workload. Hawaii et al.³⁰ In the study on workplace conditions affecting the mental health of nurses in the COVID-19 pandemic, in which 3667 nurses participated, more than half of the nurses stated that they found the number of nurses insufficient. Inadequate staffing in the nursing profession is a chronic problem that has worsened with the COVID-19 pandemic. To compensate for the insufficient number of nurses, temporary nurses were recruited in hospitals, and volunteer and student nurses were However, during emergency

care, a well-organized and prepared health system should have the capacity to ensure access to high-quality health care³¹. Staff and material shortages, overload, and long working hours affect the health of nurses. According to a study, countries that hire sufficient nurses to care for patients with COVID-19 have reduced death rates³². Providing quality health services in crises depends on having appropriate human and material resource management. It is inevitable to ensure an adequate nursing workforce in current and future pandemics.

In this study, more than half (73%) of the nurses working during the COVID-19 period stated that they were not rewarded by the management. This finding is supported by other study³³. Speth et al.³⁴, on the other hand, discovered a difference in the reward perceptions of half of the Danish nurses. Accordingly, nurses showed that they sacrificed themselves for their patients and were motivated to do their best for them. This difference in perceptions can be explained by the fact that individuals have different views on altruism and the work motivation of nurses.

In this study, 56% of the nurses perceived the communication and team relationship practices of the nurse managers at a moderate level. Findings from a study by González-Gil et al.¹² conducted in intensive care units and emergency units parallel this study. Hawaii et al.30 noted in their study that nurses' relationships with colleagues and management deteriorated during the Covid 19 pandemic. Diaz-Agea et al.³⁵ found that nurses in Spain's emergency and intensive care departments believed communication was occasionally restricted during the COVID-19 pandemic.

In a study conducted in Türkiye on the perception of communication before the pandemic, it was stated that 368 nurses perceived the communication skills of executive nurses above average³⁶. The findings of the research done before and after the COVID-19 pandemic indicate that managers need to continue to improve their communication abilities to assist, motivate, be accurate and timely, and promote nurse satisfaction. According to the results of this study, nurses perceived their managers' resources management practices at a moderate level. In the resource management dimension, more than half of the nurses stated that they did not have the opportunity to take a shower in the hospital; one-third did not find the food provided well; and the other third stated that they sometimes found the food good. The study of Ripp et al.³⁷ supports our findings as it identified three priority areas to promote and sustain the emotional well-being of healthcare workers during the crisis: a) meeting basic daily needs (e.g., food, shelter, childcare); b) improving communication; and c) improving psychosocial resources. Providing basic resources in healthcare organizations helps employees cope with work and life stresses and maintain healthy work environments. In the previous study, it was stated that health workers have expressed that they are not cared for and supported, that they perceive practices for their health and well-being as inadequate, and that their commitment to their organizations is low³⁸.

On the other hand, Rhoades and Eisenberger³⁹ noticed that employees were more willing to work during a crisis when organizational resources like financial incentives, daycare, and personal protective equipment (PPE) were made available and that rewards, favorable working conditions, and ethical behavior supported them. Cho et al.⁴⁰ conducted a study to measure nurses' perceptions regarding hospital benefits (such as beverages and snacks for short breaks, vegetables, extending the coffee and break time, etc.) during the COVID-19 pandemic; more than half of 360 nurses stated that their basic needs were met by hospitals, but nearly half of them stated that they could not benefit because the nursing management could not make a good plan. The nurses perceive that they are supported by their organization and the managers in the workplace, especially in an environment of uncertainties such as the pandemic, which makes them feel good, and causes a decrease in their fear and anxiety.

Conclusion

Measuring the perceptions of nurses reflecting their thoughts is a good method for predicting service effectiveness. When evaluated from the perspective of nurses working in private and public hospitals in Istanbul during the COVID-19 pandemic; nurses perceive their managers' practices in supporting their psychosocial needs, communication, training, and resource management at a moderate level. The imbalance between workload and human resources, changing the working places of nurses, working over working hours, nurses with chronic diseases working in the Covid service, and having little work experience, insufficient reward, and support reduce the perception levels of nurses. However, as managers need to be more flexible in these difficult conditions, a moderate assessment will not be sufficient in such a crisis.

Implications for nurse leaders; the findings of this study could be used in future pandemic disasters by improving the management policies of the organization. Nurse managers should participate in training programs to improve their personal/ organizational and physical/ psychosocial management skills and identify better strategies to address workplace conditions to protect the health, and safety, and improve the performance of the nursing workforce. Hospital management should support nurse managers in situations of chaos such as pandemics and increase their effectiveness by implementing their work proactively and systematically.

At this critical time, nurses need to support their managers. Nurses can contribute to the improvement in the managerial practice of nursing; by providing the highest level of care, serving with compassion, working nursing moral principles, managing stress, having personal readiness, clinical skill training, physical and mental readiness, to providing regular and clear communication between clinical nurses, nursing management and the others health professionals. Moreover, they should be aware of the type of mission, leadership, management skills, and interaction with the units.

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