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INVESTIGATION OF KNOWLEDGE LEVEL OF HEALTH PERSONNEL WORKING IN COVID-19 CLINICS AND COMPLIANCE WITH ISOLATION MEASURES

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Abstract: This study aims to determine the level of knowledge of healthcare personnel working in COVID-19 clinics and to assess their compliance with the isolation precautions. This descriptive-correlational study was conducted between June 1 and June 30, 2020, and involved 136 healthcare personnel working in the COVID-19 clinics of a university hospital who volunteered to take part in the study, and who subsequently took part in face-to-face interviews. The data was collected using a personal information form that included descriptive properties and a Compliance Scale with Isolation Precautions (CSIP). Mean age of the healthcare personnel was 34.11 ± 7.65 (years), and 64.7% were female. The mean CSIP score was 76.16 ± 14.02. Almost all of the participants had received training in isolation precautions, and a large majority found the training to be adequate. The mean CSIP scores of the female participants were significantly higher than that of their male counterparts ($P < 0.05$). The mean CSIP score of the respondents with Master's degrees was significantly higher than that of those with Associate's degrees. The answers to the questions associated with the level of knowledge of COVID-19 and the necessary associated care were correct at a high rate. Almost all of the participants were found to have undergone training in isolation precautions, and most found the education to be adequate. Compliance with the isolation precautions applied due to COVID-19 was considered to be good since the mean CSIP scores were high and the level of knowledge was good in all groups of occupation.

Keywords: COVID-19, Compliance with Isolation precautions, Healthcare personnel

1. Introduction

The idea of standard precautions, developed and implemented long ago in health history, provides minimal infection prevention practices in health care. Standard precautions; It has been modified in response to the differing risk of exposure among health care workers for adequacy and timely implementation and has been updated to improve the well-being of as a global threat, Covid-19 has affected 198 million people worldwide and caused approximately 4 million deaths as of August 2021 (WHO, 2020). During the Covid-19 pandemic, healthcare professionals have been the most important support force at the forefront of the fight against the disease in providing care to patients. With this; The Covid-19 pandemic, which is very difficult to control, has brought along the risk of infecting health workers at a level that may lead to the collapse of the health system (Yen et al., 2011; CDC, 2019; Barranco and Ventura, 2020).

Alongside the standard precautionary recommendations, WHO has recommended several workplace infection control measures, both at the individual and organizational level, to protect health workers and strengthen health systems against Covid-19 (CDC, 2019; WHO, 2019; WHO, 2020). Although workplace infection precautions are important to protect occupational health in health services, individual health workers should also comply with these precautions (Barranco and Ventura, 2020). When the effective factors for preventing the spread of infection in terms of healthcare workers are examined; It has been shown that the characteristics of the causative agent of Covid-19 disease are not well understood, insufficient information about isolation measures such as Personal Protective Equipment (PPE),

lack of information about infection prevention and control, and long-term exposure to infected patients are effective (Yen et al., 2015; Atkinson et al., 2020). Therefore, the implementation of infection control guidelines and precautions in healthcare settings during a contagious pandemic is essential to protect the health of healthcare workers and reduce the risk of cross-contamination and infection in the hospital. However, studies of all healthcare professionals' knowledge of infection prevention and control protocols in healthcare settings are limited, and compliance levels are uncertain during the pandemic (McMahon et al., 2016; CDC, 2020; Karadede et al., 2021).

This study, it was aimed to investigate the relationship between the level of compliance of health personnel working in Covid-19 clinics with isolation measures, the level of knowledge about infection prevention and control protocols for Covid-19, and the characteristics of healthcare workers. The results are important to identify strategies and interventions needed to strengthen workplace policies in healthcare settings and to preserve the health system's capacity to combat the pandemic and maintain primary health care.

2. Material and Methods

Study; It is a cross-sectional study. The research was carried out by face-to-face interviews with 136 healthcare professionals working in the Covid-19 clinics (service, intensive care, and emergency medicine unit) of Çukurova University Faculty of Medicine Balcalı Hospital and treating patients with Covid-19 and suspected patients between 1 and 30 June 2020. Between the dates of the research, 250 people worked, and the sample consisted of 136 (54.4%) volunteers to participate in the research.

2.1. Data Collection

The data were collected using the "Personal Information Form" and the "Scale for Compliance with Isolation Precautions". Participants filled out the form individually. The information of the researchers conducting the research is kept confidential. The time to fill out the forms is approximately 10 minutes. Since the beginning of the pandemic process, all healthcare professionals have been given training on infection prevention and control protocols/isolation measures by the Hospital Infection Committee.

2.1.1. Personal information form

The form prepared by the researchers; is a literature-based questionnaire consisting of 13 questions, in which the introductory characteristics of health professionals working in Covid-19 clinics are recorded. (CDC, 2020; Fawaz et al., 2020; T.C. Sağlık Bakanlığı, 2020). In the first part of the questionnaire, which consists of two parts, there are a total of 6 questions, including six questions about personal and professional characteristics (age, gender, education level, occupation, number of patients given daily care, isolation, and education about Covid-19). It consists of 13 questions consisting of seven questions (Covid-19 related transmission routes, possible/definite Covid-19 patient care criteria, patient transfer principles, symptoms, diagnostic tests used, in which situations PPE is used and the order of wearing PPE).

2.1.2. The scale of compliance with isolation precautions

It was developed by Ulupınar and Tayran (2011) to determine the compliance of healthcare workers with isolation precautions and the Cronbach alpha reliability coefficient was determined as 0.85. In this study, Cronbach's alpha value was found to be 0.933 for the total scale, 0.948 for "Transmission Route", 0.827 for "Employee and Patient Safety", 0.743 for "Environmental Control", and 0.796 for "Hand Hygiene/Glove Use" in its sub-dimensions (Table 1). The lowest score to be obtained from the 5-point Likert-type scale consisting of eighteen items is 18 and the highest score is 90. Rating; 1 = strongly disagree, 2 = disagree, 3 = no idea, 4 = agree, 5 = strongly agree. Negative statements in the scale are items 18, 22, 24, and 34 and are scored in the opposite direction as 1=5, 2=4, 3=3, 4=2, 5=1 (Tayran ve Ulupınar, 2011).

2.2. Statistical Analysis

Statistical analyzes were performed using a package program called SPSS (IBM SPSS Statistics 24). Frequency tables and descriptive statistics were used to interpret the findings. Non-parametric methods were used for the measurement values that did not conform to the normal distribution. By non-parametric methods, the "Mann-Whitney U" test (Z-table value) was used to compare the measurement values of two independent groups, and the "Kruskal-Wallis H" test (χ^2-table value) method was used to compare the measurement values of three or more independent groups.

Table1. Descriptive statistics and reliability of sub-dimensions of the scale of compliance with isolation measures

Subscales (n=136)	Substances	Min-max scores on the scale	Mean scores on the scale $\bar{X}\pm$ SD	Min-max scores on the patients	Alfa
Mode of transmission	3, 8, 9, 10, 11	5-25	21.60±4.48	5.0-25.0	0.948
Personnel-patient safety	2, 5, 12, 14, 16, 17	6-30	25.65±5.01	6.0-30.0	0.827
Environment control	1, 13, 15, 18	4-20	16.83±3.42	4.0-20.0	0.743
Hand hygiene-use of gloves	4, 6, 7	3-15	12.09±2.71	4.0-15.0	0.796
Total score	18	18-90	76.16±14.02	22.0-90.0	0.933

X= mean, SD= standard deviation, Min= minimum, Max= maximum.

Don't like leaving unnoticed Bonferroni pairwise comparisons for three or more groups. In examining the differences between the groups; Expressions such as [in groups in 1-2,3s] used in three or more models are valid. [1-2, 3] is that it appears between 1 and 2 and between 1 and 3 from this expression.

3. Results

In the study; the mean score of the transmission route subscale of the DSQ was 21.60±4.48; the employee and patient safety subscale were 25.65±5.01; the environmental control subscale is 16.83±3.42 and the hand hygiene/glove use subscale is 12.09±2.71. The total mean score of BSES was 76.16±14.02 (Table 1).

When personal and professional characteristics are examined; the mean age of health professionals is 34.11±7.65 (years), 64.7% of them are women and 39% of them have undergraduate education. Of the health professionals participating in the research, 64.7% were nurses, 47.1% were Covid YB employees, 44.2% cared for 6-15 patients daily, 86% received training on isolation precautions, and 69%, It was determined that 9 found the education sufficient (Table 2).

Table 2. Distribution of descriptive characteristics (n=136)

Variable	n	%
Age [$\overline{X} \pm SS \rightarrow 34{,}11 \pm 7{,}65$ (yıl)]		
<30	45	33.1
30-34	25	18.4
35-39	35	25.7
≥40	31	22.8
Gender		
Famele	88	64.7
Male	48	35.3
Job		
Nurse	88	64.7
Doctor	17	12.5
Nurse	16	11.8
Other	15	11.0
Clinic studied		
Urgent	12	8.8
Covid outpatient clinic	18	13.2
Covid service	42	30.9
Covid intensive care	64	47.1
Number of patients given daily care		
≤5	41	30.1
6-15	60	44.2
>15	35	25.7
Getting an Education		
Yes	117	86.0
No	19	14.0
Education qualification		
Yes	95	69.9
No	41	30.1

According to the gender of the participants; When the total and sub-dimension mean scores of PSS are compared, the means of transmission, employee/patient safety, hand hygiene/glove use, and total PSS scores differ significantly (P<0.05). Female participants; route of transmission, employee/patient safety, hand hygiene/glove use, and total IDS score averages are significantly higher than men.

According to educational status; When the total and sub-dimension mean scores of SSES are compared, the mean scores of employee/patient safety and total SSES differ significantly (P<0.05). When the difference is examined, the average the employee/patient safety and total score of those with a master's degree are significantly higher than those with an associate degree.

According to the training status of infection prevention and control protocols/isolation measures; When the total and sub-dimension mean scores of the BSQ were compared; route of transmission, employee/patient safety, and total HSQ scores differ significantly (P<0.05). The means of transmission, employee/patient safety, and total IAS scores of those who received training on isolation precautions were significantly higher than those who did not receive training (Table 3).

When the answers given to the questions evaluating the level of knowledge about Covid-19 are examined; The ways of transmission of covid-19 among the participants are 70.8%, the criteria to be considered in the care of patients with probable/definite covid-19 diagnosis 71.6%, the principles of patient transport 71.0%, the symptoms of Covid-19 76.7%, the diagnosis of Covid-19 It was determined that 78.3%, 78.8%, the correct response to the use of full WCE, and 84.6% of the order of dressing for WCEs were correct in the tests (Table 4).

There is no statistically significant relationship between the education status of the participants and their knowledge of Covid-19 transmission routes, patient care criteria, patient transport, Covid-19 general symptoms, Covid-19 diagnostic tests, full personal protective equipment, and the order of removing personal protective equipment (P>0.05).

4. Discussion

Covid-19 infection is a very contagious disease, and the main transmission is through droplets. In addition, it is transmitted by the droplets dispersed by sick individuals through coughing and sneezing, and by contacting and contacting the mucous membranes of the mouth, nose, or eyes after contact with the hands of other people (TC Sağlık Bakanlığı, 2020). Compliance with infection prevention and control (IPC) protocols/isolation measures are among the important issues to prevent the transmission of Covid-19 infection from patient to patient or patient to healthcare personnel. In this context, increasing the compliance of health professionals with infection prevention and control protocols/isolation measures plays an important role in preventing transmission and maintaining health services without interruption. (CDC, 2019; WHO, 2020; WHO, 2021).

The participants' CIPS total score average was high; transmission route, employee and patient safety, environmental control, and hand hygiene/glove use CIPS sub-dimension mean scores are also high (Table 1).

Table 3. Comparison of the mean scores of the scale of compliance with isolation measures according to the variables

CSIM Variable (n=136)	n	Transmission route X ± S.S.	Transmission route Median [IQR]	Employee/Patient safety X ± S.S.	Employee/Patient safety Median [IQR]	Environmental control X ± S.S.	Environmental control Median [IQR]	Hand hygiene/gloves X ± S.S.	Hand hygiene/gloves Median [IQR]	Total- IOUO X ± S.S.	Total- IOUO Median [IQR]
Famale	88	21.64±5.22	24.0 [5.0]	25.85±5.77	28.0 [7.0]	16.74±3.90	18.0 [5.0]	12.61±2.67	13.5 [4.0]	76.84±16.21	81.5 [15.0]
Male	48	21.53±2.68	21.0 [4.0]	25.27±3.20	25.0 [5.8]	17.00±2.33	17.0 [4.0]	11.13±2.56	11.0 [4.0]	74.92±8.71	74.5 [11.8]
Statistical analysis*		Z=-2.060		Z=-2.450		Z=-0.722		Z=-3.381		Z=-2.623	
Possibility		P=0.039		P=0.014		P=0.470		P=0.001		P=0.009	
Education Level											
High School (1)	50	20.56±5.29	21.0 [5.0]	24.50±5.82	25.5 [7.0]	16.14±3.98	17.0 [4.3]	11.58±2.93	12.0 [4.3]	72.78±16.14	75.0 [14.5]
Assoc deg (2)	7	20.29±4.99	20.0 [4.0]	24.00±3.21	23.0 [4.0]	15.42±2.94	16.0 [5.0]	12.29±2.06	12.0 [4.0]	72.00±10.88	72.0 [10.0]
Bachelor (3)	53	22.17±4.10	24.0 [5.0]	26.19±4.85	27.0 [5.5]	17.25±3.20	18.0 [4.0]	12.38±2.53	13.0 [4.0]	77.98±13.29	81.0 [15.5]
Master (4)	26	22.77±2.80	24.0 [4.0]	27.19±3.36	29.0 [5.3]	17.69±2.46	18.5 [5.0]	12.42±2.80	13.5 [4.3]	80.08±10.23	83.0 [18.3]
Statistical analysis		χ^2=6.637		χ^2=8.126		χ^2=6.466		χ^2=2.516		χ^2=7.894	
Possibility		P=0.084		P=0.043		P=0.091		P=0.472		P=0.048	
Difference				[2-4]						[2-4]	
Job											
Nurse	88	21.85±4.87	23.5 [5.0]	25.93±5.43	28.0 [7.0]	16.85±3.64	18.0 [5.0]	12.56±2.54	13.0 [4.0]	77.19±15.12	80.0 [16.0]
Doctor	17	22.18±2.96	22.0 [4.5]	26.06±3.49	26.0 [6.5]	17.35±2.47	17.0 [5.0]	11.65±2.96	11.0 [5.0]	77.24±10.21	78.0 [17.0]
Nurse	16	20.88±2.27	20.0 [1.8]	24.37±3.36	25.0 [4.5]	16.44±2.22	16.0 [3.8]	11.88±2.40	11.0 [2.8]	72.88±7.19	72.5 [10.3]
Secretary	9	21.67±2.55	21.0 [5.0]	26.78±3.19	27.0 [6.5]	18.00±2.18	19.0 [4.0]	10.78±3.15	11.0 [4.5]	77.22±8.64	81.0 [14.5]
Statistical analysis		χ^2=6.748		χ^2=6.137		χ^2=2.920		χ^2=7.733		χ^2=6.976	
Possibility		P=0.080		P=0.105		P=0.404		P=0.052		P=0.073	
Gettingan Educ											
Yes	117	22.18±3.41	23.0 [5.0]	26.18±4.19	27.0 [7.0]	17.18±2.89	18.0 [5.0]	12.27±2.65	13.0 [4.0]	77.80±11.43	80.0 [17.0]
No	19	18.00±7.75	21.0 [14.0]	22.37±7.88	24.0 [7.0]	14.68±5.31	17.0 [6.0]	11.00±2.92	11.0 [6.0]	66.05±22.53	72.0 [30.0]
Statistical analysis		Z=-2.100		Z=-2.030		Z=-1.794		Z=-1.848		Z=-2.001	
Possibility		P=0.036		P=0.040		P=0.073		P=0.065		P=0.045	

Table 4. Distribution of answers to questions about Covid-19

Reply Variable	True n	True %	False n	False %
Covid-19 transmission routes				
Droplet (T)	118	86.8	18	13.2
Contact (T)	88	64.7	48	35.3
Breathing (T)	83	61.0	53	39.0
TOTAL	289	70.8	119	29.2
Possible/Definite Covid 19 is one of the patient care criteria?				
Patients should be isolated individually (T)	126	92.6	10	7.4
Patients should not be hospitalized in the same room (F)	111	81.6	25	18.4
If there is a need for a companion, it should be limited to 1 person (T)	97	71.3	39	28.7
Care materials to be used should not be taken out of the room (Stethoscope, thermometer, glucometer....) If they are to be used on another patient, they should be disinfected and used (T)	124	91.2	12	8.8
They should be followed in rooms with absolute negative pressure (F)	39	28.7	97	71.3
For inhaled drugs, a metered dose inhaler should be used instead of a nebulizer (T)	87	64.0	49	36.0
TOTAL	584	71.6	232	28.4
How should the principles of covid 19 patient transport be?				
The patient should not be transported unless necessary (T)	120	88.2	16	11.8
It is sufficient to wear a surgical/medical mask to the patient (T)	98	72.1	38	27.9
Healthcare workers should always use full PPE (F)	124	91.2	12	8.8
Surgical/medical mask is sufficient if there is no aerosol formation (T)	71	52.2	65	47.8
N95 mask, eye/face protection should be used in all cases (F)	70	51.5	66	48.5
TOTAL	483	71.0	197	29.0
Covid-19 general symptoms				
Fire (T)	134	98.5	2	1.5
Shortness of breath (F)	134	95.5	2	1.5
Loss of smell and taste (T)	108	79.4	28	20.6
sore throat (T)	105	77.2	31	22.8
Dry cough (T)	127	93.4	9	6.6
Fatigue (T)	101	74.3	35	25.7
Joint pain (T)	95	69.9	41	30.1
Nasal congestion (T)	97	71.3	39	28.7
watery eyes (F)	88	64.7	48	35.3
headache (T)	83	61.0	53	39.0
Diarrhea (T)	107	78.7	29	21.3
Pneumatic infiltration (T)	73	53.7	63	46.3
TOTAL	1252	76.7	380	23.3
Covid-19 diagnostic tests				
Antibody Ig-G/Ig-M (T)	95	69.9	41	30.1
Antigen Orapharangeal (T)	118	86.8	18	13.2
TOTAL	213	78.3	59	21.7
In what situations should full PPE be used?				
During sampling (T)	119	87.5	17	12.5
During sample transport (F)	61	44.9	75	55.1
In cases where there is a risk of contact with patient printouts (T)	111	81.6	25	18.4
In case of contact with certain/probable Covid 19 patients closer than 1 meter (T)	120	88.2	16	11.8
In aerosol-forming procedures (aspiration, bronchoscopy, intubation.......) (T)	125	91.9	11	8.1
TOTAL	536	78.8	144	21.2
Personal protective equipment wearing order	115	84.6	21	15.4

The literature review has shown that many studies evaluating compliance with infection prevention and control protocols/isolation measures have similarly shown studies in which healthcare professionals have high average scores on the Compliance with Isolation Precautions Scale (Zencir et al., 2013; Erden et al., 2015; Özden and Özveren, 2016; Arlı and Bakan, 2017; Karahan et al., 2019; Şatır et al., 2019; Sarıer and Kurşun, 2020; Geçit and Özbayır, 2020). There are limited studies in the literature about the compliance of healthcare workers with isolation during the Covid-19 outbreak. In the study conducted by Lai et al. in China, the compliance behavior of healthcare workers with infection prevention and control protocols with the emergence of the risk of Covid-19 was examined and it was reported that there was a significant increase (in the study of Ashinyo et al. (2021) it was revealed that compliance with infection prevention and control protocols is high among healthcare workers exposed to Covid-19 in treatment centers (Lai et al., 2020)). In the study conducted by Özlü et al. (2021) to determine the compliance of emergency health personnel with isolation measures during the Covid-19 pandemic, it was shown that there was an average level of compliance with isolation measures. Many factors are effective in compliance with infection prevention and control protocols/isolation measures. Clear infection prevention and control protocols guidelines are critical in supporting healthcare compliance with effective communication, support from administrators, training, easy access to PPEs and equipment safety, and infection prevention and control protocols (Geçit and Özbayır, 2020; Ashinyo et al., 2021).

Compliance with infection prevention and control protocols plays a critical role in reducing the exposure of healthcare workers to SARS-CoV-2. In contrast, non-compliance with infection prevention and control measures is a major risk factor for Covid-19 infection among healthcare workers (Xiong et al., 2020). WHO, in its guidelines on infection prevention and control protocols, recommends strict adherence to these protocols in the management of Covid-19 patients (WHO, 2021). Healthcare workers; The fact that the vast majority of them received training on infection prevention and control protocols/isolation measures and evaluated the training as sufficient may explain the high compliance with isolation precautions. Moreover; the fact that healthcare workers face the risk of contamination with SARS-CoV-2 can be counted as one of the reasons for high compliance.

It was determined that almost all of the participants received training on isolation precautions, and the majority found this training sufficient (Table 2). In the study of Özlü et al. (2021) most of the participants received training on isolation precautions. In the study conducted by Sarıer and Kurşun (2020) to determine the compliance level of nurses working in intensive care units with isolation measures, almost all of the participants received training on isolation measures and

found this training highly sufficient. In addition, the mean scores of the trainees' PPS are significantly higher. It has been reported that healthcare-associated infections can be reduced by approximately 30% with the correct implementation of isolation measures by healthcare professionals (Arlı and Bakan, 2017).

Therefore, continuous and effective training on isolation measures is one of our defense mechanisms in preventing infections. In the study; Periodic training on infection prevention and control protocols/isolation measures, which are considered adequate, will prevent contamination of healthcare workers, while at the same time reducing/preventing cross-contamination.

In the study, all occupational groups have high CIPS score averages, and it is seen that their compliance with the isolation measures applied due to Covid-19 is good. Female participants; route of transmission, employee and patient safety, hand hygiene/glove use, and the total mean scores of IDS is significantly higher than that of men. In general, as the education level increased, the mean scores of PSAs increased, but the mean of employee/patient safety and total PSIS scores of graduate students were significantly higher than those with associate degree degrees. The means of transmission, employee/patient safety, and total IAS scores of those who received training on isolation precautions were significantly higher than those who did not receive training (Table 3).

It is possible to say that individual factors also affect compliance with infection prevention and control protocols. As in the study; in the study of Şatır et al. (2019) the isolation compliance levels of female health workers were found to be higher. Studies in the literature, especially in the sample group of nurses, have shown that the level of compliance with isolation measures is high (Zencir et al., 2013; Erden et al., 2015; Özden and Özveren, 2016; Arlı and Bakan, 2017; Karahan et al., 2019; Sarıer and Kurşun, 2020; Karadede et al., 2021). In line with this result, it can be said that women's compliance with isolation measures is better than men's.

It has been determined that the education level of healthcare workers affects their compliance with isolation measures. Although it did not show any significance, as the level of education increased, the level of compliance increased. In the study by Zencir et al. (2013) similar to the study, it was found that those with a master's degree had a higher PPS score. This situation; can be attributed to the higher level of awareness and knowledge of health professionals with higher education.

It was determined that high rates of correct answers were given to the questions evaluating the level of knowledge about Covid-19 disease and its care (Table 4). There are limited studies on the knowledge and attitudes of health professionals about Covid-19. In the studies of Özlü et al. (2021) it has been shown that emergency medical personnel have a high level of knowledge about the Covid-19 pandemic. In a study by Parikh et al. on the knowledge of the public and healthcare professionals

about Covid-19, it was revealed that more than 90% of healthcare professionals know and follow the precautions (Parikh et al., 2020). In the study conducted by Huynh et al., the knowledge and attitudes of healthcare professionals about Covid-19 were investigated and it was determined that 88.4% of the participants had sufficient information (Huynh et al., 2020). In the study conducted by Khasawneh et al. (2020) the knowledge, attitudes, and precautions of medical students about Covid-19 were investigated and it was determined that the participants had the expected level of knowledge and applied appropriate strategies to prevent the spread of the virus. In a study by Hussain et al. (2021) investigating the knowledge, attitudes, and practices of healthcare professionals in a tertiary hospital about Covid-19, it was determined that the participants had sufficient knowledge about the virus and applied accordingly. A study by Aydın and Balcı, in which nurses' knowledge of Covid-19 was investigated, showed that participants had extensive knowledge of Covid-19 (Aydın and Balcı, 2020).

In Ashinyo et al.'s study, participants' correct use of PPE, especially in aerosol-generating procedures, was quite high following the protocol, similar to the study. Because aerosol-generating procedures are high-risk procedures associated with the risk of SARS-CoV-2 transmission to healthcare workers (Ashinyo et al., 2021). WHO recommends the use of special respirators, gloves, gowns, and eye protection during aerosol-generating procedures (WHO, 2021). According to epidemiological research, SARS-CoV-2 is highly contagious and can spread very quickly in human populations. The main mode of transmission is respiratory droplets and physical contact (Xiong et al., 2020). Proper adherence to the use of PPE is effective in preventing hospital-acquired transmission of SARS-CoV-2 (Verbeek et al., 2020; Zhao et al., 2020).

5. Conclusion

As a result; It was determined that almost all of the participants received training on isolation measures and found this training sufficient. All occupational groups have a high mean score of IÖÖÖ, and their compliance with the isolation measures applied due to Covid-19 is at a good level. Moreover; High rates of correct answers were given to the questions in which the level of knowledge about Covid-19 disease and care was evaluated. Infection prevention and control efforts to combat the spread of COVID-19 in hospitals should involve all workers. In this way, it will be possible to reduce healthcare-associated transmission of COVID-19 in healthcare settings. In the study, it is important to create a management plan for the pandemic process to maintain this harmony, even though all healthcare professionals have a high PPS score. During the pandemic period, providing training on infection prevention and control protocols to cover all healthcare personnel regardless of their education level, brochures, plaques,

etc. It is necessary to increase the regular use of stimulating materials such as In addition, it should be ensured that the necessary sensitivity to the PPE needs of healthcare workers is shown and addressed.

While there are studies in the literature on the compliance of physicians and nurses with isolation measures, the number of studies covering all healthcare professionals is insufficient. In this direction, it is recommended to increase scientific studies covering all healthcare professionals.

Limitations

The study was conducted in a single center and the sample reflects only one region of Türkiye. The results of this study can only be generalized to the study group. Another limitation of the study is the decrease in the sample size because the entire population of the study did not accept to participate in the study. It is recommended to conduct studies with a larger sample.

Author Contributions

Concept: D.A. (25%), D.G. (15%), E.G. (15%), H.Ş. (15%), R.A. (15%) and S.A. (15%), Design: D.A. (25%), D.G. (15%), E.G. (15%), H.Ş. (15%), R.A. (15%) and S.A. (15%), Supervision: D.A. (25%), D.G. (15%), E.G. (15%), H.Ş. (15%), R.A. (15%) and S.A. (15%), Data collection and/or processing: D.A. (25%), D.G. (15%), E.G. (15%), H.Ş. (15%), R.A. (15%) and S.A. (15%), Data analysis and/or interpretation: D.A. (25%), D.G. (15%), E.G. (15%), H.Ş. (15%), R.A. (15%) and S.A. (15%), Literature search: D.A. (25%), D.G. (15%), E.G. (15%), H.Ş. (15%), R.A. (15%) and S.A. (15%), Writing: D.A. (25%), D.G. (15%), E.G. (15%), H.Ş. (15%), R.A. (15%) and S.A. (15%), Critical review: D.A. (25%), D.G. (15%), E.G. (15%), H.Ş. (15%), R.A. (15%) and S.A. (15%), Submission and revision D.A. (25%), D.G. (15%), E.G. (15%), H.Ş. (15%), R.A. (15%) and S.A. (15%). All authors reviewed and approved final version of the manuscript.

Conflict of Interest

The authors declared that there is no conflict of interest.

Ethical Approval/Informed Consent

For study; Taken from Turkish Ministry of Health covid research (2020-05-27T22_08_23). More Çukurova University Medical Non-Interventional Clinical Research Ethics Committee Approval (Date: 15.05.2020 Number: 99 Decision No: 33), written consent from Çukurova University Medical Faculty Balcalı Hospital, and written consent was obtained after the informed consent form for the purpose. The study was conducted by the principles of the Declaration of Helsinki.

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