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COMPLIANCE OF NURSES WORKING IN EMERGENCY AND INTENSIVE CARE UNITS TO ISOLATION PRECAUTIONS AND HEALTH ANXIETY LEVELS IN COVID-19 PANDEMIC

ACİL VE YOĞUN BAKIM ÜNİTELERİNDE ÇALIŞAN HEMŞİRELERİN COVİD-19 PANDEMİSİNDE İZOLASYON ÖNLEMLERİNE UYUMU ve SAĞLIK KAYGISI DÜZEYLERİ

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ABSTRACT

Aim: Nurses faced with some physical and mental problems fighting on the front line in the COVID-19 pandemic. In this difficult fighting, it is important to compliance of nurses with the isolation precautions both in terms of their health and the speed of contagion. It was aimed to examine the nurses' compliance with the isolation precautions the pandemic and the level of health anxiety.
Methods: It is descriptive and correlational type. It was carried out with nurses working in emergency service and intensive care units in a state university training and research hospital in Turkey between November-December 2020 (N = 116). The rate of participation of nurses in the study is 88.8% (n = 103) regardless of choosing a sample. The data obtained with the questionnaire form, "Compliance Scale to Isolation Precautions" and "Health Anxiety Scale". The data obtained were analyzed using descriptive, parametric, and nonparametric statistical methods in SPSS 23.0 package data program.
Results: In the study; the compliance of nurses with isolation precautions was found to be higher than in the literature. It was found that the health anxiety levels of the nurses were low. In addition, no significant relationship was found between the two scales.
Conclusions: As a result of the study, it is recommended that in-service training be carried out regularly in the control of isolation measures and health anxiety, and the study should be carried out in a large sample group.
Key Words: COVID-19, nursing, isolation, health anxiety.

ÖZET

Amaç: COVİD-19 pandemisinde ön cephede savaşan hemşireler fiziksel ve ruhsal yönden bazı problemlerle karşı karşıya kalmıştır. Bu zorlu mücadelede hemşirelerin izolasyon önlemlerine uyumu gerek kendi sağlıkları gerekse bulaş hızı açısından önem arz etmektedir. Çalışmada; hemşirelerin pandemide izolasyon önlemlerine uyumu ve sağlık kaygısı düzeyinin incelenmesi amaçlanmıştır.
Yöntem: Çalışma; tanımlayıcı ve ilişki arayıcı türdedir. Kasım-Aralık 2020 tarihleri arasında, Türkiye'de bir devlet üniversitesi eğitim ve araştırma hastanesinde acil servis ve yoğun bakım ünitelerinde çalışan hemşirelerle gerçekleştirildi (N=116). Örnek seçilmeksizin hemşirelerin çalışmaya katılım oranı %88,8 (n=103)'dir. Veriler anket formu, "İzolasyon Önlemlerine Uyum Ölçeği" ve "Sağlık Anksiyetesi Ölçeği" ile elde edildi. Elde edilen veriler SPSS 23.0 paket veri programında, tanımlayıcı, parametrik ve non-parametrik istatiksel yöntemlerden yararlanılarak analiz edildi.
Bulgular: Çalışmada; hemşirelerin izolasyon önlemlerine uyumu literatürden daha yüksek olarak belirlendi. Hemşirelerin sağlık kaygısı düzeylerinin ise düşük olduğu tespit edildi. Ayrıca iki ölçek arasında anlamlı bir ilişkiye rastlanılmadı.
Sonuç: Çalışma sonucunda gerek izolasyon önlemleri gerekse sağlık kaygısının kontrolünde hizmet içi eğitimlerin düzenli yapılması, çalışmanın büyük örneklem grubunda gerçekleştirilmesi önerilmektedir.
Anahtar Kelimeler: COVİD-19, hemşirelik, izolasyon, sağlık kaygısı

INTRODUCTION

The coronavirus disease 2019 (COVID-19) pandemic has reflected as an extraordinary situation in health services (Abdelghani et al., 2021; Jungmann and Witthoft, 2020). The pandemic, which first appeared in Wuhan, China in December 2019, spread rapidly to all countries. The World Health Organization (WHO) has declared COVID-19 a public health emergency and pandemic. Nurses have been the primarily responsible healthcare professionals in the prevention and control of many infections since Florence Nightingale (Ates and Okur, 2020). Therefore, the need for nurses is increasing in the COVID-19 pandemic (Cevirme and Kurt, 2020). Although nurses have a knowledge about the pandemic in the past, they are the most vulnerable individuals at the core of the pandemic (Choi et al., 2020). Especially at the beginning of the pandemic, many stressors negatively affect nurses, such as complex knowledge of the virus, increased workload, lack of protective equipment, and the risk of infection (Mokhtari et al., 2020). Emergency services stand out as risky units from this point which are the first application places of cases during the pandemic process. In some studies in the literature, it has been reported that the risk of experiencing mental symptoms is higher, especially in intensive care units (Arpacıoglu et al., 2021). In one study, the anxiety prevalence of nurses in the intensive care unit was shared as 17.6% (Liu et al., 2020). Nurses working in these two important areas constantly provide services to infected individuals, increasing their concerns about their own health (Shen et al. 2020). Health anxiety; It is the belief that the individual has or will have a serious illness because of misinterpretation of his somatic symptoms, and excessive anxiety about health (Jamshidian et al., 2018). In the development process of health anxiety, it is seen that an increased perception in body control increases anxiety (Suliman et al., 2018). Most people experience this anxiety. Individuals with low anxiety level are individuals with acute anxiety while looking for the ways to escape from this situation or look for a solution; lives an excessive desire to fight disease and death (Kılıncel et al., 2020). When health anxiety can not be controlled, it can become harmful (Asmundson and Taylor, 2020). Studies report a high prevalence of anxiety among healthcare professionals concerning COVID-19 (Pappa et al., 2022; Ulupınar and Tayran, 2011). From this point, it is important to determine the health anxiety levels of health professionals. Nurses must apply isolation precautions (contact, droplet, respiration) based on the contamination characteristic of the microorganism, as well as standard precautions before contact with the individual (Suliman et al., 2018; Yuruk Bal and Çelik, 2020). In fighting the COVID-19 pandemic, the primary protective shield is isolation precautions. Besides their knowledge on this subject, nurses' compliance with isolation methods should be at the highest level (Herron et al., 2020). There are studies in the literature examining the compliance of nurses with isolation precautions (Askeroglu et al, 2022; Dogu and Tiryaki, 2017; Suliman et al., 2018; Zencir et al, 2017). However, it was aimed to examine the relationship between nurses working in intensive care and emergency units to isolation precautions and the level of health anxiety in the Covid-19 pandemic.

Purpose of the Research

In this study; it was aimed to examine the relationship between nurses working in intensive care and emergency units to isolation precautions and the level of health anxiety in the

COVID-19 pandemic.

Research Questions

•What is the nurses working in intensive care and emergency units compliance with the isolation precautions and the level of health anxiety?

•Do the nurses working in intensive care and emergency units compliance with isolation precautions and the level of health anxiety differ according to their sociodemographic characteristics?

•Do the nurses working in intensive care and emergency units compliance with isolation precautions and health anxiety differ according to their education/working characteristics and questions about the pandemic process?

MATERIALS AND METHODS

Study Design and Sample

The study is descriptive and correlational type. The study was conducted with nurses working in emergency service and intensive care units in a state university training and research hospital in Turkey between November and December 2020. The population consisted of n=116 nurses working in related units. The entire population was included in the study without a sample selected. There are similar studies in terms of subject and sample in the literature (Askeroglu et al., 2022; Yıldırım Yenigun and Arslan, 2021). Participation rate in the study is 88.8% (n = 103). The nurses who did not take part in the study those who do not take part voluntarily.

Instruments

The data were obtained with a questionnaire form and two different scales.

Data Collection Form

The form was created by the researchers considering the literature (Dogu and Tiryaki, 2017; Kılıncel et al., 2020; Sarıer and Kursun, 2020; Zencir et al., 2013;). The form consists of 31 questions in total. The questions are optional and open-ended; It consisted of questions about sociodemographic characteristics (age, gender, educational status, marital status, number of children, economic status, number of cohabiting people, constant drug use, smoking history, presence of disease), education/working characteristics (state of liking the profession, unit of work, years of professional experience, total working year, type of work, and weekly working hours), and pandemic process (education status in the last six months regarding isolation precautions, the environment in which the COVID-19 pandemic has been, access to protective equipment, having symptoms and signs, having tomography, COVID-19 (PCR) testing status, getting psychological support, increased concern, and anxiety about the pandemic fear about the continuation of the pandemic).

Compliance Scale to Isolation Precautions

The scale was developed by Tayran and Ulupınar (2011). It is an 18-item, 5-point Likert-type scale that determines nurses' compliance with isolation precautions. The scale consists of 4 dimensions: contagion route (5 items), employee-patient safety (6 items), environmental control (4 items), hand hygiene-glove usage (3 items). In the scale, negative statements (items 5, 7, 12, 17) are scored in reverse from upper to lower (5, 4, 3, 2, 1), and other positive items are scored from small to large (1, 2, 3, 4, 5). It is recommended to use the scale overall the total score. Total score (lowest score 18, highest score 90) or average (lowest average 1; highest average 5) can be used in scoring. High scores show increased compliance with isolation precautions. The total Cronbach alpha value of the scale was 0.85; the

internal consistency coefficients of the sub-dimensions are between 0.52 and 0.80. (Ulupınar and Tayran, 2011). Cronbach's alpha internal consistency coefficient for this scale was 0.84 in this study.

Health Anxiety Scale

It is a self-report scale consisting of 18 items developed by Salkovskis et al. (2002). The reliability and validity study of the scale was conducted by Aydemir et al. (2013) in our country. The scoring of the scale is between 0 and 3 for each item, and a high score shows a high level of health anxiety. The Cronbach's alpha internal consistency coefficient of the scale was determined as 0.91, and the Cronbach's alpha coefficient for this study was calculated as 0.87.

Ethical Dimension

Before starting the study, written permissions were obtained from the Ministry of Health General Directorate of Health Services (2020-05-05T16_17_49), Zonguldak Bulent Ecevit University Faculty of Medicine Non-Invasive Ethics Committee (2020/10), Zonguldak Provincial Health Directorate (95762934-799) and the hospital where the study was conducted. For the scales used in the study, permission was obtained by contacting the relevant researchers via e-mail. The aim of the study was explained to the nurses who made up the research sample, and importance was given to the principle of willingness and volunteering.

Data Collection Method and Time

In the study, the data were collected using a self-report method, a questionnaire form, and a scale. Data collection tools were applied to the participants on an online platform by the researcher. In the online form, information was given about the purpose of the research, the confidentiality of the data and that it would not be used outside of the research, and voluntary consent of the participants was obtained. No pilot study was carried out in the study. The time to fill out the form is 5-10 minutes.

Analysis

In the analysis of the data, the frequency and percentage values of the grouped variables, the mean and standard deviations of the numerical variables were calculated. The evaluation of the data was carried out on the computer using the SPSS 23.0 packet data program. Whether there was a difference between the two groups was examined by an independent sample t-test, or there was a difference between more than two groups was examined by one-way analysis of variance (OneWay ANOVA). As a result of "one-way analysis of variance"(ANOVA), firstly the Levene test for variance homogeneity, then which group or groups the difference originated from was checked with the "multiple comparison test"(Bonferroni or Tamhane's T2).Bonferroni was used to examine the difference between groups in variables that provide variance homogeneity, and Tamhane's T2 test was used to examine the difference between groups in variables that do not provide variance homogeneity. In addition, Cronbach's alpha value was used for scales reliability.

RESULTS

The average age of the nurses taking part in the study is 33.35 ± 7.73;80.6% of them are female, 53.4% of them are married and 72.8% of them are undergraduate. 50.5% of the nurses have no children.60.2% of them have an income equivalent to expenses, 20.4% have a constant use of drugs, 73.8% do not have any disease and 71.8% do not have a history of smoking (Table 1).

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Tablo 1. Sociodemographic characteristics (N=103)

Age		33,35±7,73	
	21-30 age	43	41,7
	31-40 age	39	37,9
	41-50 age	21	20,4
Gender	Male	20	19,4
	Female	83	80,6
Educational status	Health vocational high school graduate	6	5,8
	Associate degree graduate	15	14,6
	Bachelor's degree	75	72,8
	Master's degree	7	6,8
Marital status	Married	55	53,4
	Single	48	46,6
Number of children	0	52	50,5
	1	19	18,4
	2-4	32	31,1
Economic status	Income less than expenses	20	19,4
	Income equals expense	62	60,2
	Income more than expenses	21	20,4
Number of cohabiting people	Only	35	34,0
	1-2 person	33	32,0
	3-5 person	34	33,0
	6 and above	1	1,0
Presence of disease	Yes	27	26,2
	No	76	73,8
Constant drug use	Yes	21	20,4
	No	82	79,6
Smoking history	Yes	29	28,2
	No	74	71,8

65% of the nurses have between 1-5 people in their homes, and 81.6% of them continued to live in these houses during the pandemic process. According to the unit of study, 57.3% of the nurses work in the emergency department and 42.7% in the intensive care unit. The rate of nurses who support this unit by changing places in the pandemic is 10.7. 90.3% of the nurses like their profession. 50.5% of the nurses' professional experience years is 10 years or more. The rate of those whose working year is at least 1 year in their unit is 32.0%. 90.3% of the nurses work day and night and 74.8% of them worked 24-48 hours a week in the pandemic. During the pandemic period, nurses reported they received training on isolation precautions in the last six months (77.7%, n = 80). 73.8% of them stated they do not have any problems accessing protective equipment. The rate of those who do not feel any signs or symptoms related to COVID-19 disease is 66.0%. 44.7% of the nurses were PCR tested. The rate of nurses who think to have tomography is 39.8%. 69.9% of them answered yes to the question of change or increase in worries and anxieties during the pandemic. When the reasons for this are questioned, 58.3% of them reported primarily as fear of infecting those around them. The nurses reported they did not think of getting psychological support during this period (82.5%), but they feared the continuation of the pandemic (84.5%). While the scale score of compliance to isolation precautions was 82.70 ± 9.47, the contagion route subscale score was 23.71 ± 2.86, the employee and patient safety subscale score was 27.36 ± 3.06, the environmental control subscale score was 17,66±2,87, the sub-dimension of the usage of hand hygiene gloves was 13.97 ± 1.99. The total score of the health anxiety scale is 16.55 ± 5.91, the hypersensitivity to physical symptoms and anxiety sub-dimension is 12.88 ± 4.64, and the sub-dimension is associated with the negative consequences of the disease is 3.67 ± 2.31. (Table 2)

Table 2. Compliance scale to isolation precautions and health anxiety inventory scale of sub-dimensions (N=103)

	Mean	**S.D.**	**Min**	**Max**	**Cronbach's Alfa**
Compliance Scale to Isolation Precautions	**82,70**	**9,47**	**26**	**90**	**0,904**
Contagion route	23,71	2,86	6	25	0,894
Employee and patient safety	27,36	3,06	11	30	0,631
Environmental control	17,66	2,87	4	20	0,689
Usage of hand hygiene gloves	13,97	1,99	4	15	0,613
Health Anxiety Inventory Scale	**16,55**	**5,91**	**1**	**35**	**0,813**
Hypersensitivity to physical symptoms and anxiety	12,88	4,64	1	27	0,788
Negative consequences of the disease	3,67	2,31	0	11	0,748

Min: *Minumum* ***Max:*** *Maximum* ***S.D:*** *Standard Deviation*

When the relationship between the compliance scale to isolation precautions and the variables is examined, there is a significant difference between the "hand hygiene-glove usage" sub-dimension and the working year of the nurses, economic status, and constant drug use ($p < 0.05$). There is a significant difference between the number of people the nurses live with and the "Hand hygiene-usage of gloves" sub-dimension and the "Contagion route" sub-dimension ($p < 0.05$). In addition, there is a significant difference between those who receive training on isolation precautions and the "Environmental control" sub-dimension ($p < 0.05$). No significance was found among other variables ($p > 0.05$)**.** In this study, health anxiety of women was found to be significantly higher. While nurses were working in different units before the pandemic, health concerns of those working in intensive care units were found to be higher in the pandemic compared to other units. In the study, the rate of those who felt symptoms of the disease on themselves was quite low (34.0%,n=35). And with these datas, the average of the health anxiety scale and the hypersensitivity to somatic symptoms and the anxiety dimension were found to be higher those who had the PCR test, consider having tomography, and those who experience fear of getting psychological support and the continuation of the pandemic. No significance was found among other variables ($p > 0.05$)**.** As a result of the Pearson correlation analysis applied in the study, there was no statistically significant relationship between the health anxiety inventory scale sub-dimension and compliance scale to isolation precautions and its sub-dimensions ($p > 0.05$) (Table 3).

Table 3. Examining the relationship between scales and sub-dimensions

		Contagion route	Employee and patient safety	Environmental control	Usage of hand hygiene gloves	Compliance Scale to Isolation Precautions
Hypersensitivity to physical symptoms and anxiety	r	0,023	-0,023	0,021	0,038	0,014
	p	0,815	0,821	0,836	0,704	0,889
	N	103	103	103	103	103
Negative consequences of the disease	r	-0,006	-0,030	-0,048	-0,004	-0,027
	p	0,954	0,761	0,628	0,966	0,786
	N	103	103	103	103	103
Health Anxiety Inventory Scale	r	0,016	-0,030	-0,003	0,028	0,000
	p	0,872	0,767	0,979	0,778	0,997
	N	103	103	103	103	103

r: *Pearson correlation analysis*

DISCUSSION

Emergency and intensive care units are units where nurses directly encounter infected individuals in the COVID-19 pandemic (Shanafelt et al., 2020). Nurses continued to provide one-to-one patient care during this period and also became relatives of patients. At the same time, visitor restrictions were introduced to hospitals. In the pandemic, it has become a necessity for the isolation precautions to be at the highest level in the applications performed specifically to these areas. In this study, the scale score of nurses' compliance to isolation precautions was found to be 82.70±9.47 which aims to determine nurses 'compliance to isolation precautions during the pandemic process (Table 2). This result shows that the nurses' compliance to the isolation precautions is at a good level. In addition, according to the studies in the literature, it is seen that they have high scores (Dogu and Tiryaki, 2017; Erden et al., 2015; Jungmann and Witthoft, 2020; Satır et al., 2019; Sarıer and

Kursun, 2020; Suliman et al., 2018; Zencir et al., 2013). It is seen that emphasizing the importance of the issue in the pandemic process and the need for nurses to protect their health to increase complianceto isolation precautions. In the study of Ozden and Ozveren' (2016); The total score average of the scale of compliance to the isolation precautions of nurses is 66.75±11.80, the sub-dimension mean scores of the scale are respectively 21.52±4.55, employee and patient safety 18.20±3.80, environmental control 16.63±3.98, hand hygiene-glove usage 10.25±2.26. When the results of the study are compared with this study, it can be explained by an increase in sensitivity due to the pandemic process. In the literature, it is stated that as the working year increases, compliance to the isolation precautions increases (Zencir et al., 2013). In a study, it was found that the total score average of nurses with a working year of 11 years or more was higher with a statistically significant difference ($p<0.05$) (Jungmann and Witthoft, 2020). The sample of this study consists of nurses with 10 years or more years of experience (50.5%,n=52). However, a significant relationship was found between this study year and only "Hand hygiene-glove usage", which is one of the sub-dimensions of the scale. In addition, the mean subscale score of nurses for less than 1 year was found to be significantly higher than those who worked in the unit between 1 and 5 years. This situation was thought to be because of the retraining of nurses during the pandemic process (77.7%) and the new knowledge gained from undergraduate education. In-service training plays a huge role in compliance with isolation precautions. In the study, there is a significant difference between the number of cohabited people of nurses live with and some sub-dimensions of the isolation precautions scale ($p<0.05$). In studies conducted, the most important problem that nurses especially mentioned about the pandemic is the fear of carrying the disease to their relatives (Shayganfard et al., 2021). In this study, "fear of infecting people around" was reported as the major problem of the change in worrying and anxiety (58.3%). Findings in the literature are similar to the study from this point. In the study, there is a significant difference between those who received training on isolation precautions and the "Environmental Control" in sub-dimension ($p<0.05$). In a study, nurses who want to receive training on isolation precautions; A significant difference was found between the mean scores in the contagion route and environmental control sub-dimensions ($p<0.05$) (Jungmann and Witthoft, 2020). Therefore, it can be concluded that such training given by the institution increases the sensitivity of nurses, especially in terms of this sub-dimension. In the study conducted by Sarıer and Kursun (2020), it was found that the mean score of the environmental control sub-dimension was lower than the other sub-dimension mean scores when the sub-dimensions in the scale of compliance with the isolation precautions were examined. In this study, the lowest score in terms of scores is seen to be in the "hand hygiene-glove usage" in sub-dimension. The study also found significant results in terms of some variables, especially in the "hand hygiene-glove usage" in sub-dimension. However, scale developers suggested using the scale mostly in one dimension (Ulupınar and Tayran, 2011). In the study of Satır et al. (2019); it was found higher isolation compliance of intensive care nurses compared to nurses working in other units. Studies with similar results have been found in the literature (Zencir et al., 2013; Jungmann and Witthoft, 2020). In this study, no significant difference was seen in the compliance of the nurses' isolation precautions in terms of units. This result should not only be specific to the pandemic period but should have

the same sensitivity in all conditions for all nurses. In the study conducted by Gurer and Gemlik (2020); it was reported that some of the participants experienced problems with the supplying and usage of personal protective equipment during the interventions during the initial phase of the pandemic (Gurer and Gemlik, 2020). In a study conducted; 88.3% of the nurses stated they had difficulties in applying isolation precautions and the most common problem was the lack of material (43.8%) (Satır et al., 2019). In this study, nurses stated they did not have any difficulties in accessing isolation precautions (73.8%;n=76). It is thought that this difference resulted from both the characteristics of the institution served and the period of realization of the study. It is very important for health professionals to feel safe for providing effective care. In pandemics that affects of the society regarding of the socioeconomic and spiritual aspects, the mental health of healthcare teams whose social and business life is responsible for health, is affected by this situation (Abdelghani et al., 2021; Kılıncel et al., 2020). It is thought that nurses' close attention to COVID-19 positive patients, especially during the epidemic process, will affect their anxiety and anxiety levels. In this study, the health anxiety of the nurses was evaluated together with the compliance to the isolation precautions. In a study conducted with the COVID-19 pandemic in Wuhan, it was found that 71.3% of healthcare workers had acute psychiatric disorders in 22.4% and 6.2% of them. It is emphasized that access to mental health services is important for health (Mokhtari et al., 2020). During the pandemic, many nurses complained of increasing working hours. The relationship between the increase in working hours and the development of psychological symptoms has been investigated in studies (Abdelghani et al., 2021). One study concluded that increased working hours (>55 hours per week) are associated with a 1.65 and 1.68 times risk of depressive and anxiety symptoms, respectively (Virtanen et al., 2011). In this study, 74.8% of the nurses stated that they worked between 24-48 hours in a week. No significant relationship was found between health anxiety and working hours. In a different study, it was reported that nurses were in fewer hospitals during the pandemic period (Arpacıoglu et al., 2021). In terms of this finding, it can be said that the sample groups have the same characteristics. It is important for people to feel good both mentally and physiologically to work more efficiently (Arpacıoglu et al., 2021). Health anxiety refers to an individual's tendency to worry excessively about illness and health (Anagnostopoulos and Botse, 2016). In a study, no significant difference was found between the age of healthcare workers and their health anxiety. From this point, the study findings are similar, but in the same study, the health anxiety of nurses was reported as 54.5±0.78 (Kılıncel et al., 2020). This type of anxiety is more common in less experienced and generally in younger nurses (Mokhtari et al., 2020). In this study, the health anxiety levels of nurses can be interpreted as low. In the literature, it is reported that the anxiety level of women is generally higher than men. In this study, health anxiety of women was found to be significantly higher. There is a similar situation in parallel with the literature in many studies. This result; It is an expected result that nurses, mostly women, who practice the profession, are at greater risk of exposure to COVID-19 patients as they provide direct care to patients and are responsible for many invasive practices (Abdelghani et al., 2021; Jungmann and Witthoft, 2020; Shayganfard et al., 2021). Choi et al. (2020) reported that nurses felt more anxious and nervous than other professionals (Choi et al., 2020). While nurses were working in different

units before the pandemic, health concerns of those working in intensive care units were found to be higher in the pandemic compared to other units. One of the most important factors in the development of anxiety is unusual situations. In the pandemic, many healthcare professionals tried to stay in different environments by moving to protect their families. In this study, 18.4% of the nurses preferred to be moved. In addition, most of the nurses in the study reported that they experienced worry and anxiety during the pandemic period. In the study, the rate of those who felt symptoms of the COVID-19 disease on themselves was quite low. With these datas, the average of the health anxiety scale and the hypersensitivity to somatic symptoms and the anxiety dimension were found to be higher those who had the PCR test, consider having tomography, and those who experience fear of getting psychological support and the continuation of the pandemic. In the study by Kılıncel et al. (2020); It has been determined that healthcare workers have increased health concerns, their work and social lives are highly adversely affected, and they feel the need to get support from psychiatry specialists. Health anxiety is the subjective fear that one's health may be in danger (Shayganfard et al., 2021). However, it is important for nurses who make important decisions that this anxiety is controlled in terms of health care practices.

Limitations of the Study

The results found in this study can not be generalized to all nurses.

CONCLUSIONS

In the study; it was aimed to investigate the relationship between the compliance of nurses working in the emergency and intensive care units to isolation precautions and their health anxiety levels in the COVID-19 pandemic. It was concluded that nurses' compliance to isolation precautions was higher than the literature. While the levels of health anxiety are expected to be high, it is also pleasing that they are low. Because when health anxiety can not be prevented, different psychological problems may arise in nurses. Finally, it was investigated whether there was a significant relationship between the two scales, and no significance was found in the study. In accordance with the results obtained in the study; Training on isolation precautions should continue to be repeated periodically to include all healthcare workers providing healthcare services. In addition, observational studies on the subject may be suggested. Special training should be conducted to improve effective communication, reduce the working hours of nurses, provide adequate breaks or adequate access to personal protective equipment, and the treatment of COVID-19 patients in order to reduce health anxiety. In addition, it is recommended to provide psychological support to all nurses through online platforms.

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Conflicts of interest

No conflict of interest has been declared by the authors.

Author's Contribution

Study design: *Ela Yılmaz Coskun, Nilufer Berberkayar;* ***Data collection and/or analysis****: Ela Yılmaz Coskun, Nilufer Berberkayar;* ***Preparation of the article:*** *Ela Yılmaz Coskun, Nilufer Berberkayar*

KAYNAKÇA

Abdelghani, M., Mahdy, R.S., El-Gohari, & H.M. (2021). Health anxiety to COVID-19 virus infection and its relationship to quality of life in a sample of health care workers in Egypt: a cross-sectional study. *Archives of Psychiatry and Psychotherapy, 1*, 19-28. doi: 10.12740/APP/130304.

Anagnostopoulos, F., & Botse, T. (2016). Exploring the role of neuroticism and insecure attachment in health anxiety, safety-seeking behavior engagement, and medical services utilization: A study based on an extended interpersonal model of health anxiety. *SAGE Open*, *6*(2), 1-13. doi: 10.1177/2158244016653641

Arpacioglu, S., Baltalı, Z., & Unubol, B. (2021). Burnout, fear of Covid, depression, occupational satisfaction levels and related factors in healthcare professionals in the COVID-19 pandemic. *Cukurova Medical Journal*, 46, 88-100. doi: 10.17826/cumj.785609.

Asmundson, G. J., & Taylor, S. (2020). How health anxiety influences responses to viral outbreaks like COVID-19: What all decision-makers, health authorities, and health care professionals need to know. *Journal of Anxiety Disorders*, 71, 102211. doi: 10.1016/j.janxdis.2020.102211.

Askeroglu, A., Balkaya, F., & Tercan, F. (2022). Compliance of intensive care nurses with isolation precautions and examination of related factors. *Adnan Menderes University Faculty of Health Sciences Journal*, 6(2), 193-201. Retrieved from https://dergipark.org.tr/en/pub/amusbfd/article/1004869.

Ates, A. Y., & Okur, F. (2020). Hidden heroes in the Covid-19 pandemic: Nurse leaders. *International Journal of Health Management and Strategies Research*, 6, 625-638. Retrieved from https://dergipark.org.tr/en/download/article-file/1473922.

Aydemir, O., Kirpinar, I., Satı, T., Uykur, B., & Cengisiz, C. (2013). Reliability and validity of the Turkish version of the health anxiety inventory. *Archives of Neuropsychiatry*, 50, 325-331. doi: 10.4274/npa.y6383

Cevirme, A., & Kurt, A. (2020). Covid-19 pandemia and its reflections to nursing profession. *Eurasian Journal of Researches in Social and Economics*, **7**, 46-52. Retrieved from https://dergipark.org.tr/en/download/article-file/1128108.

Choi, K. R., Jeffers, K. S., & Logsdon, M. C. (2020). Nursing and the novel coronavirus: Risks and responsibilities in a global outbreak. *Journal of Advanced Nursing*, 76, 1486-1487. doi: 10.1111/jan.14369

Dogu, O., & Tiryaki, O. (2017). Job satisfaction relationship between use of gloves attitude and compliance with ısolation precautions of nurses intensive care. *Journal of Intensive Care Nursing*, 21, 16-22. Retrieved from https://dergipark.org.tr/en/download/article-file/335739.

Erden, S., Kahraman, B., & Bulut, H. (2015). Evaluation of compliance of physicians and nurses with isolation precautions in intensive care units. *Gumushane University Journal of Health Sciences, 4, 388-398.* Retrieved from https://dergipark.org.tr/en/download/article-file/220156.

Gurer, A., & Gemlik, H.N. (2020). A qualitative study on the problems and solution proposals of healthcare employees in the field during the Covid-19 pandemic process. *Journal of Health Services and Education*, 4, 45-52. doi: 10.29228/JOHSE.3

Herron, J., Hay-David, A.G.C., Gilliam, A.D., & Brennan, P.A. (2020). Personal protective equipment and Covid 19-a risk to healthcare staff?. *British Journal of Oral and Maxillofacial Surgery*, 58, 500-502. doi: 10.1016/j.bjoms.2020.04.015

Jamshidian, Y., Kiani, A., & Dargahi, S. (2018). Relationship of cognitive emotion regulation and meaning in life with health anxiety among emergency nurses. *Health in*

Emergencies and Disasters, 3, 199-206. http://hdq.uswr.ac.ir/article-1-196-en.html

Jungmann, S. M., & Witthoft, M. (2020). Health anxiety, cyberchondria, and coping in the current COVID-19 pandemic: Which factors are related to coronavirus anxiety? *Journal of Anxiety Disorders, 73*, 102239. doi: 10.1016/j.janxdis.2020.102239

Kılıncel, S., Issı, Z.T., Kılıncel, O., Aslan, E.A., Ay, R., Erzin, G. …, Akkaya, C. (2020). Effects of Coronavirus (COVID-19) Pandemic on Health Anxiety Levels of Healthcare Professionals. *Journal of Contemporary Medicine*, 10, 1-7. doi: 10.16899/jcm.767377

Liu, Z., Han, B., Jiang, R., Huang, Y., Ma, C., Wen, J., ..., Ma, Y. (2020). Mental health status of doctors and nurses during COVID-19 epidemic in China. Available at SSRN 3551329

Mokhtari, R., Moayedi, S., & Golitaleb, M. (2020). COVID-19 pandemic and health anxiety among nurses of intensive care units. *International journal of mental health nursing, 29*, 1275-1277. doi: 10.1111/inm.12800

Ozden, D., & Ozveren, H. (2016). Determining the professional and organizational factors in nurses' compliance with isolation precautions. *Journal of Academic Research in Nursing*, 2, 24-32. Retrieved from https://jag.journalagent.com/jaren/pdfs/JAREN_2_1_24_32.pdf

Pappa, S., Ntella, V., Giannakas, T., Giannakoulis, V.G., Papoutsi, E., & Katsaounou, P. (2020). Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis. *Brain, Behavior, And İmmunity,* 88, 901-907. doi:10.1016/j.bbi.2020.05.026

Sarıer, T., & Kursun, S. (2020). Intensive care nurses' levels of compliance with isolation precautions. *Acibadem University Health Sciences Journal*, 11, 682-688. doi:10.31067/0.2020.319

Satır, D. G., Guneri, S.E., Ozturk, S., Maras, G.B., Mertoglu, A., & Sevil, U. (2019). Evaluating the compliance and factors affecting with isolation precautions of nurses: Izmir sample. *The Journal of Tepecik Education and Research Hospital*, 29, 218-222. doi:10.5222/terh.2019.08870

Shanafelt, T., Ripp, J., & Trockel, M. (2020). Understanding and addressing sources of anxiety among health care professionals during the COVID-19 pandemic. *Journal of the American Medical Association*, 323, 2133-2134. doi:10.1001/jama.2020.5893

Shayganfard, M., Mahdavi, F., Haghighi, M., Sadeghi-Bahmani, D., & Brand, S (2021). Sources of health anxiety for hospital staff working during the covid-19 pandemic. *International Journal of Environmental Research and Public Health*, 18, 3094. doi: 10.3390/ijerph18063094

Shen, X., Zou, X., Zhong, X., Yan, J., & Li, L. (2020). Psychological stress of ICU nurses in the time of COVID-19. *Critical Care*, 24, 200. doi: 10.1186/s13054-020-02926-2

Suliman, M., Aloush, S., Aljezawi, M., & Albastawy, M. (2018). Knowledge and practices of isolation precautions among nurses in Jordan. *American Journal of İnfection Control* 46, 680-684. doi: 10.1016/j.ajic.2017.09.023

Ulupınar, S., & Tayran, N. (2011). Development of a scale study: Validity and reliability of a scale compliance with isolation precautions. *Florence Nightingale Journal of Nursing*, 19, 89-98. Retrieved from https://dergipark.org.tr/en/download/article-file/95063

Yuruk B.E., & Celik, H. (2020). The role of the nurse in combating the covıd-19 pandemic. *Turkiye Klinikleri Journal of Nursing Science,* 12, 300-304. doi: 10.5336/nurses.2020-75315

Virtanen, M., Ferrie, J., Singh-Manoux, A., Shipley, M., Stansfeld, S., Marmot, M., . . . Kivimäki, M. (2011). Long working hours and symptoms of anxiety and depression: A 5-year follow-up of the Whitehall II

study. *Psychological Medicine, 41*, 2485-2494. doi:10.1017/S0033291711000171

World Health Organization (2020). Coronavirus disease (COVID-19) outbreak: rights, roles and responsibilities of health workers, including key considerations for occupational safety and health: interim guidance. Retrieved from https://www.who.int/docs/default-source/coronaviruse/who-rights-roles-respon-hw-covid-19.pdf

Yıldırım Yenigun, M., & Arslan, S. (2021). Nurses' compliance with ısolation precautions worked in hospital. *Healty ve Society*, 31(3), 137-145. Retrieved from https://ssyv.org.tr/wp-content/uploads/2021/10/15-Hastanede-Calisan-Hemsirelerin-Izolasyon-Onlemlerine-Uyumu.pdf.

Zencir, G., Bayraktar, D., & Khorshid, L. (2013). Nurses' complıance with isolation precautions worked in a public hospital. *Journal of Ege University Nursing Faculty*, 29, 61-70. Retrieved from https://dergipark.org.tr/en/download/article-file/825262