Clinical Schizophrenia & Related Psychoses

The Relation between Anxiety Management and Hypochondriasis in Nurses of Public Hospitals in Kermanshah during COVID-19

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Abstract

Introduction: Anxiety is a psychological phenomenon and one of the most common mental disorders affecting all ages. This study aims to determine the extent of coronavirus-related anxiety and self-centeredness and investigate the relationship between anxiety and hypochondriasis among nurses working in Kermanshah public hospitals.

Methods: This is an analytical cross-sectional study. The population consists of nurses working in Kermanshah public hospitals in 2021, and the sample was selected through simple random sampling. Demographic questionnaires, self-control questionnaires, and coronavirus anxiety questionnaires were distributed to the nurses virtually.

Results: According to the findings, 1.6% (2) of the nurses had mild self-sacrifice, 87.2% (109) had average self-sacrifice, and 11.2% (14) had high self-sacrifice. Additionally, 45.6% (57) of the nurses reported experiencing anxiety.

Conclusion: The results suggest a direct relationship between coronavirus anxiety and hypochondriasis in nurses. Given the prevalence of COVID-19 and the increasing workload of nurses.

Keywords: Anxiety • Management • Respiratory diseases • Hypochondriasis • Nurses

Introduction

In late December 2019, a series of unexplained pneumonia cases were reported in Wuhan, China. The Chinese government and health researchers took swift measures to control the pandemic and began investigating its cause. On 21 January, 2020, the World Health Organization temporarily named the new virus the novel coronavirus-2019 [1]. Symptoms include fever, cough, and difficulty breathing from mild to severe [2]. The World Health Organization, as of 4 March, 2020, more than 150 million people have been confirmed to have contracted the disease, and more than 2.5 million people have died from it [3]. The pandemic has quickly affected various aspects of daily life, including work, shopping, socializing, and planning for the future. Despite being aware of the psychological effects of these changes, little attention has been paid to the mental health care of people who are free from this crisis and post-traumatic growth such as positive psychological changes after grappling with challenging conditions [4,5]. Research on previous global outbreaks has shown that people who suffer from epidemic-related anxiety, post-traumatic stress, general stress, anxiety, health anxiety, and suicide increase [6,7] . One of the common complications in patients with chronic respiratory disorders is anxiety, which can significantly reduce patients' quality of life [8]. Coronavirus anxiety is common due to the unknown and uncertain nature of the virus [9,10]. In Iran, this disease has caused a lot of anxiety among people [11]. Additionally, due to a lack of scientific information about this virus, people's anxiety is exacerbated. This anxiety may expose people to false news. Anxiety can weaken the immune system and make people

vulnerable to the coronavirus [12]. The global emergency caused by COVID-19 has put enormous pressure on nursing services. High work pressure, inadequate resources, and stressors in the workplace can negatively affect nurses' mental health [13]. Mental disorders are one of the most significant components of the overall burden of diseases, and it is predicted that in 2020 the share of mental and neurological disorders will increase from the overall burden of diseases by 50% and from the current 10.5% to 15% of the total burden of diseases [14]. Therefore, it is important to pay attention to mental health in all areas of life, including individual, social, and occupational life [15]. Job-related stress is one of the stresses that can endanger a person's health if they are overloaded, with physical, psychological, and behavioral complications. Hospital staff are among the groups that experience high job stress due to their type of activity and work environment. Many stressors in this profession have many effects on its employees [16]. If these stressors are not effectively addressed, not only may their immune system weaken, increasing the risk of COVID-19, but it can also negatively affect the quality and safety of medical services [17]. Self-support is one of the most important factors in increasing stress and anxiety in nurses [18]. Mental health problems and psychosomatic disorders can be mentioned, with the fundamental characteristic of hypochondriasis [1]. Based on the fourth edition of the statistical and diagnostic classification system of mental disorders being a mental preoccupation with fear of developing or believing in a serious illness, based on the misinterpretation of one or more symptoms by the person [19]. Rochman has recently suggested that viewing excessive anxiety associated with the disease as desirable. Hypochondriasis is

considered a type of psychological anxiety disorder. This is because common psychological changes in hypochondriasis, such as severe anxiety and excessive interpretation of minor physical symptoms, are also often seen in typical anxiety disorders [20]. The simplest treatment in patients suffering from hypo disease is the diagnosis and treatment of comorbidities such as obsessive-compulsive disorder, panic disorder, and depression, which can help to improve hypochondriasis [21]. The clinical staff of hospitals experience a lot of stress in their workplaces, which can lead to mental disorders such as hypochondriasis and anxiety, especially during the coronavirus period. It seems important to investigate the relationship between corona anxiety and self-morbidity during the pandemic to explore the connection between these two variables and provide a strategy for using immediate interventions to strengthen psychological flexibility, increase the capacity of healthcare systems, and reduce anxiety in healthcare personnel. Therefore, considering the necessity of this study, this research aims to manage the relationship between anxiety, self-anxiety, and hypo disease in nurses of Kermanshah public hospitals.

Materials and Methods

This manuscript was approved by the Research Ethics Committee of Kermanshah University of Medical Sciences (IR.KUMS.REC.1400.458). This cross-sectional and descriptive-analytical study aimed to determine the relationship between coronavirus anxiety and self-morbidity in nurses of Farabi, Golestan, and Taleghani Hospitals in Kermanshah in 2021.

Sampling method

In this study, the method of data collection was simple randomization among nurses in public hospitals. The researcher obtained the necessary permissions from the Vice Chancellor for Research and Technology of the University and the nursing offices of public hospitals in Kermanshah and then proceeded to complete the questionnaires. The necessary information was collected by having participants complete questionnaires.

Sample and sampling

The sample size was calculated based on the comparison formula of a qualitative trait, with a confidence coefficient of 95% (α=1) and other parameters based on the results of similar studies. The minimum sample size was estimated to be 115, and due to the importance of the subject, a loss rate of 10% was considered, resulting in 127 samples being taken. Three hospitals of Farabi, Golestan, and Taleghani 165. The sample size was assigned by random and stratified method and the share of each hospital from the sample size is as follows: 67 persons from Farabi Hospital 40 from Golestan Hospital 20 from Taleghani Hospital.

Tools

The research tools in this study included a standard hypochondriasis questionnaire and a Corona anxiety questionnaire, Standard questionnaire for hypochondriasis: The standard questionnaire of Evans hypochondriasis, the validity of this questionnaire has been examined on several occasions. Talaei and colleagues obtained the base coefficient of the questionnaire based on the Kronbach Alpha 89/0 in 2018 [22]. In addition, the high correlation of the questionnaire with other self-assessment tests such as the small-scale self-assessment of the Minnesota Multifaceted Personality questionnaire (MMPI) and the 90-question mark checklist (90SCL) indicates its appropriate validity [22] .The Evans patient self-questionnaire (1980) contains 36 questions, and people are ranked above 60 based on scores in healthy groups (20-0), borderline (21-30), mild (31-40), average (41-60), and severe.

Coronavirus anxiety scale

This scale has five questions that measure the cognitive, behavioral, emotional, and physiological dimensions associated with coronavirus anxiety over the past two weeks. Questions are graded based on a five-degree Likert spectrum from zero (essentially) to 4 (almost every day). The Corona anxiety scale cleans people with and without inefficient anxiety with a cut score of 9. High scores on this scale are associated with the diagnosis of coronavirus anxiety, dysfunction, excessive frustration, and suicidal thoughts.

Analysis of the data

After collecting data, the researcher encounters a mass of raw data that is not very meaningful without statistical analysis and cannot be traced to the results of this data, the method of data analysis is a way to organize and summarize and, in other words, to conceptualize this data (99). In the present study, data analysis was carried out using 25-SPSS software, and a significant level was considered less than 05/0 for all tests. Descriptive statistical methods include: arranging abundance distribution tables, calculating mean and standard deviation, and it was used to describe variables. Analytical statistical methods were used, including Independent t-test, variance analysis, Pearson correlation, and linear regression.

Results

Mean age and work experience of the study population: In this study, 120 nurses with a mean age of 32.5 years and a standard deviation of 4.7 years participated. The minimum age of nurses was 24 and the maximum age of the nurses participating in the study was 43 years. The mean work experience was 8.3 years with a standard deviation of 5.9 years. The minimum work experience was 1 and the maximum was 30 years as shown in Table 1.

Table 1. Mean and standard deviation of quantitative variables in research units.

Variables	Mean	Standard deviation	Minimum	Maximum
Age	32.5	4.7	24	43
Work experience	8.3	5.9	1	30

Demographic information in research units, according to, 60% of nurses participating in the study were female and 92% had undergraduate education. 32.8% of nurses were serving in the ICU, 48% in the emergency department, and 19.2% in the Corona ward. 27.2% of nurses were employed at Farabi Hospital, 28% at Golestan Hospital, and 44.8% at Taleghani Hospital as shown in Table 2.

Table 2. Relative and absolute frequency distribution of demographic variables in research units.

Variables		Frequency	Percent
Sex	Male	50	40
	Female	70	60
Age	<30	54	43.2
	30-40 Age	55	44
	>40 Age	16	12.8
Work Experience	<10	89	71.2
	10-20 Age	32	25.6
	>20 Age	4	3.2
Education	Bachelor	115	92
	Master	10	8
Workplace	ICU	40	32.8
	Emergency	60	48
	Corona ward	24	19.2
The hospital where to serve	Farabi	34	27.2
	Golestan	35	28
	Taleghani	56	44.8

Relative and absolute frequency of hypochondriasis in research units: According to the research, 1.6% (2 patients) had mild self-morbidity, 87.2% (109) had moderate self-morbidity, and 11.2% (14) had severe self-

morbidity. Additionally, 45.6% (57) of nurses experienced corona anxiety as shown in Table 3.

Table 3. Distribution of relative and absolute frequency of hypochondriasis in research units.

	Variables	Frequency	Percent
Hypochondriasis	28	28	28
	28	28	28
	28	28	28
	28	28	28
	Intact	0	0
	Border	0	0
	Mild	2	1.6
	Moderate	109	87.2
	Severe	14	11.2
Corona anxiety	28	28	28
	No	68	54.4
	Yes	57	45.6

Hypochondriasis by demographic variables in Nurses. According to the findings of the Independent t-test, there was no significant statistical difference between the average score of self-medication by gender and education (p>0.05).

According to the findings of the variance analysis, there was no significant difference between the average score of self-medication by work history, the department of the place of Service, and the hospital of the place of Service (p>0.05). The test results revealed a significant difference in average self-medication scores by age (p<0.05) as shown in Table 4.

Coronavirus anxiety by demographic variables in nurses: There was no significant statistical difference between the average coronavirus anxiety score by gender and education (p>0.05). Based on the findings of the independent t-test, there was no significant difference between the average coronavirus anxiety scores based on work history (p>0.05). According to the variance analysis findings. The findings of the test showed a significant difference between the average coronavirus anxiety score by age, the service area, and the service area hospital (p<0.05) as shown in Table 5. According to Table 6, based on the findings of the Pearson correlation test, there was a direct and significant relationship between corona anxiety and hypochondriasis (p=0.05> and r=0.232).

Table 4. The findings of the independent t-test.

	Variables	Mean ± standard deviation	Test statistics	p-value
Sex	Male	4/6 ± 5/53	-0/636	0/554
	Female	5/4 ± 1/54		
Age	>30Year	9/5 ± 7/52	3/3	0/040
	30-40Year	08/5 ± 2/55		
	<40Year	1/3 ± 2/53		
Work experience	>10Year	6/5 ± 4/53	1/3	0/257
	10-20Year	5/4 ± 2/55		
	<20	3/5 ± 7/53		
Education	Bachelor	4/5 ± 8/53	-0/613	0/541
	Master	08/5 ± 9/54		
Workplace	ICU	07/6 ± 09/5	0/047	0/954
	Emergency	5/5 ± 8/53		
	Corona ward	5/3 ± 7/53		
The hospital where to serve	Farabi	8/5 ± 7/52	1/1	0/306
	Golestan	4/5 ± 54		
	Taleghani	01/5 ± 5/54		

Table 5. Comparison of average coronavirus anxiety by demographic variables in nurses.

	Variables	Mean ± standard deviation	Test statistics	p-value
Sex	Male	6/5 ± 5/9	1/6	0\092
	Female	6/5 ± 7/7		
Age	>30Year	8/4 ± 1/8	9/8	0/001
	30-40Year	9/4 ± 1/10		
	<40Year	3/4 ± 5/3		
Work experience	>10Year	5/5 ± 07/9	2/04	0/133
	10-20 Year	6/5 ± 09/7		
	<20	3/7 ± 5/5		
Education	Bachelor	7/5 ± 6/8	1/3	0/171
	Master	2/4 ± 1/6		
Workplace	ICU	1/5 ± 6/11	12/04	0/001
	Emergency	9/4 ± 5/6		
	Corona ward	02/6 ± 6/7		
The hospital where to serve	Farabi	6/4 ± 7/11	9/9	0/001
	Golestan	7/4 ± 08/8		
	Taleqani	8/5 ± 6/6		

Table 6. Self-hypo disease and corona anxiety in the research units.

Variables	Self-hypo	
	Correlation coefficient	p-value
Corona anxiety	0.232	0.009

Discussion

This chapter first discusses and interprets the results of the present study with the results of other sources and studies. Then, if there is a discrepancy between the results of the present study and other studies, the reason for this discrepancy is explained scientifically and clearly, and then the conclusions and application of the results of this study are expressed. Finally, the proposals for future research have been mentioned. Due to the increasing number of psychological problems among healthcare workers especially nurses due to their occupational nature, as well as the spread of COVID-19 virus, it is necessary to examine the factors affecting nurses' anxiety in various ways, to provide a strategy to employ immediate interventions to strengthen psychological resilience and increase the capacity of healthcare systems and reduce the anxiety of healthcare personnel from an ethical and scientific aspect. To this end, the present study aimed to examine the relationship between self-disease and coronavirus anxiety in nurses of Kermanshah State Hospitals in 2021. Based on the first goal of "Determining the status of coronavirus anxiety rates in nurses", the results of the present study showed that 6/45 percent (57 people) of nurses had coronavirus anxiety. In the study of Abadi et al., the prevalence of coronavirus anxiety was reported to be 48% (95) [23]. According to the results of previous studies obtained at the time of the publication of SARS and Ebola, the prevalence of psychological disorders such as anxiety, stress, and depression has been reported to be high [23]. Our research found that female nurses are more anxious than male nurses. The physiological characteristics of a woman are divided into two physiological and psychological aspects. Physically, women are not as physical as men. Psychologically, female nursing staff were slightly more resilient than men and women were more sensitive than men. This physical discomfort exacerbated the anxiety of the female nurse [24].

The findings of the Independent t-test showed that there were no significant statistics between the average coronavirus anxiety score and gender. The Liu et al., study conducted on hospital doctors and nurses in Wuhan, China during the spread of COVID-41 disease, shows that medical care workers experience a high degree of depressive symptoms (50.4%), anxiety (44.6%), which corresponds to the results of the present study [19]. The findings of the Independent t-test showed that there was no significant statistical difference between the average coronavirus anxiety score by education. Huang et al., observed a significant statistical difference [25]. There was also no significant difference in the study of Zheng et al., [24]. Nemati et al., also reported no significant correlation between coronavirus anxiety and education level [26].

In the Khani et al., study also 45.4% of nurses reported degrees of hypochondriasis [15]. In addition, in the Akhavan et al., study the prevalence of hypochondriasis among nurses working in the operating room was 19/18%, and unlike the present study, hypochondriasis was more at normal or borderline levels [27]. One of the causes of high levels of hypochondriasis in nurses in this study, compared to the previous two, could be mental health disorders caused by the COVID-19 pandemic. The Kim et al., study found that nurses in COVID-19 wards were more likely than other hospital staff to suffer from mental health disorders [28].

The present study's results also correspond to Koh and colleagues' study conducted during the SARS epidemic in Singapore. In the Koh et al., study more than half of nurses reported 56% stress [29]. Also in another study conducted in the SARS epidemic in Hong Kong, nurses suffered more anxiety after direct contact with patients infected with SARS. That

corresponds to the results of the present study. During the COVID-19 pandemic, many nurses have experienced increased levels of anxiety. In a recent study, it was found that 55% of the nurses in the sample had altered anxiety levels. This included 20.0% with mild anxiety, 18.3% with moderate anxiety, and 16.7% with severe anxiety [29]. Similar results were also observed in a study by Dong et al., where about 45% of frontline nurses were found to have anxiety, with 14% experiencing severe levels of anxiety [30]. The study by Isfahani and colleagues in meta-analysis examined the anxiety levels of nurses during the COVID-19 pandemic. According to this, the overall average anxiety of Iranian nurses during the COVID-19 epidemic was equal to 21.96 [31]. Different studies reported different results for this. A 2022 study found that the average anxiety in nurses was 24.68. Anxiety levels in nurses during COVID-19 different studies are very variable. Perhaps one of the reasons for this is the use of various tools to measure the anxiety of nurses. On the other hand, are more vulnerable than other people because of the type of jobs and the need for them to intervene in emergencies and crises. In addition, anxiety caused by infectious diseases while serving patients and in the closest possible case, the high likelihood of mental illness can exacerbate disturbing thoughts in the manner of events, anxiety, restlessness, attempts to avoid stimuli associated with harmful events, or to cause physical symptoms such as fear and stress. The study by Kim et al., showed that nurses in COVID-19 wards suffered more from mental health disorders than other hospital staff [28]. According to the results of the Pearson correlation test, there was a direct and significant relationship between corona anxiety and hypochondriasis However, few studies have been conducted in this regard. To explain the result, it should be noted that since a person is constantly concerned about his health and the development of physical disorders in the autobiographical disorder, it is obvious that a wave of constant anxiety is associated with him. Because the main characteristic of these people is the complaint of various diseases that are not related to the logical hypothesis model Dewey and Bond showed in their 2005 study that there was a meaningful relationship between anxiety and hypochondriasis [32] .According to the obtained study, the findings showed that there was a significant difference between the average self-medication score by age. Gasemnejad et al., also reported a significant relationship between hypochondriasis and anxiety [33]. The causes of low levels of stress, anxiety, and depression in this study, we can point out that nurses in Corona-related departments are at risk of developing psycho-cognitive disorders due to their working nature, heavy protective clothing, 95-N masks, the risk of infecting and infecting others [33]. Based on the second goal of "Determining the status of self-medication in nurses", the results of the present study showed that hypochondriasis was moderate in nurses, and 41/81 percent of nurses experienced degrees of hypochondriasis from mild to severe. The study of Yusefi et al., also reported moderate levels of hypochondriasis in nurses [34]. Use of results in nursing Although the results of this study cannot be limited to nursing only all members of the health care team and other individuals institutions and organizations involved in the coronavirus epidemic can benefit from its findings in general due to the different and multiple areas of Nursing including education research care and clinical services management and policy-making especially related to the phenomenon studied the results can be used in any of the fields. Application in the field of content education and the body of knowledge necessary in the development and progress of the treatment process of patients is considered a fundamental element. Nurses should have the right awareness, knowledge, and understanding of controlling their anxiety and stress, depending on their professional nature and exposure to various stressors and anxious conditions in society. In this regard, the inclusion of the necessary content in the context of nurses' training programs and the presence of resources, the results of such research, and credible scientific findings can be used and be fruitful for the necessary training, creating the right knowledge, awareness, and knowledge. The application of the results in the clinical area of the present study can help research in the area of anxiety and self-medication of the treatment staff, especially nurses, in various ways. By achieving a link between anxiety and self-medication, this study allows others to plan and implement similar research to examine other factors and to place their findings in the context of the results of this research and other research

conducted in this field. The results of this study can also create a suitable environment for conducting new studies that will focus new research on other interested researchers so that they can achieve brighter horizons through the planning and implementation of similar and related research. It should be noted that anxiety can reduce the individual and social functioning of people, especially nurses, due to their professional nature. Since self-medication is also one of the disorders that arise in response to emotional and psychological problems such as anxiety, such research can be used to promote mental health in people, especially nurses.

Study limitation

The limitations of this study include that since the study is intermittent, it was not possible to examine the causal relationship. Due to the small volume of samples, it is not possible to generalize to all populations. A sampling of the present study was done randomly and accessible which is why it was not possible to control the bias.

Conclusion

Based on the results of this study, it is suggested that training sessions be considered to control nurses' anxiety and to train them sufficiently to increase adaptive skills. Due to the current stressful environment of life and increasing anxiety and self-control in nurses, it is recommended to use counseling methods and create a more intimate relationship between medical staff to reduce environmental stresses and solve problems. This study was conducted on nurses, so it is suggested that other research be conducted separately for men and women. Similar research can also be conducted in other medical and non-medical fields in different regions of the country to compare the results.

Acknowledgments

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