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RESEARCH ARTICLE

ASSESSING THE ANXIETY LEVELS OF DOCTORS AND NURSES CARING FOR COVID-19 PATIENTS USING THE BECK ANXIETY INVENTORY

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ABSTRACT

Objetives: Healthcare professionals and doctors are in the risk group for anxiety because they are in close contact with COVID-19 patients during both prevention and treatment. The aim of this study is to assess the anxiety levels of healthcare professionals during the pandemic and determine their need for psychiatric or psychological care.

Methods: The Beck Anxiety Inventory was used to determine the anxiety levels of the study participants. The data were analyzed using the program SPSS 20. In addition to statistical descriptors (mean, standard deviation), statistical analysis was performed using independent samples t-tests.

Results: Eighty-four healthcare professionals participated voluntarily and filled out the Beck Anxiety Inventory questionnaire. Forty-five were female and 39 were male. Of the nurses, 80% were female; only 14.7% of doctors were female. Fifty were nurses and 34 were doctors. When we assessed the Beck Anxiety Inventory results, there were no statistically significant differences between men and women ($p>0.05$). However, anxiety was significantly higher in nurses than doctors ($p<0.05$).

Conclusion: The COVID-19 pandemic has caused more anxiety in nurses than doctors and all healthcare professionals are adversely affected.

Keywords: Anxiety, COVID-19, Pandemic, Nurse

INTRODUCTION

In December 2019, a local pneumonia outbreak was detected in Wuhan (Hubei, China) with an initially unknown cause, and in a short time, it was determined that the cause was a new type of coronavirus called coronavirus 2 (SARS-CoV-2). It soon caused a global pandemic (1). During pandemics, the mental and physical health of the community can be significantly affected (2). Stressful lives, traumas, depression, and continuing and uncertain events, such as a pandemic, can increase anxiety and despair (3).

Healthcare professionals have to be in close contact with patients during both the prevention and treatment of COVID-19. This exposes them to anxiety at every stage (4). In addition, the severe effects of the virus can provoke anxiety, fear, helplessness, motivation disorder, and panic attacks provoked by

the threat of dying. This is an expected psychiatric condition for doctors who witness this condition (5). The Beck Anxiety Inventory is a Likert-type scale from 0 to 3. It comprises 21 items to measure anxiety and reveal the cognitive aspects of anxiety. For each item, one of the options must be selected: None, Mild, Moderate, or Severe. The highest score is 63. Higher scores indicate greater anxiety (6).

The aim of this study is to determine the degree of anxiety among healthcare professionals during the pandemic and determine the need for psychiatric or psychological care for healthcare professionals struggling with COVID-19 worldwide.

MATERIALS AND METHODS

The study participants were doctors and healthcare professionals who have worked at the Elazığ Fethi Sekin City Hospital's Emergency COVID Department since the beginning of the pandemic. They all agreed to the voluntary participation form. We obtained a permit from Turkey's Ministry of Health (2020-09-03T09_04_20) and ethical approval from the Fırat University Non-invasive Research Ethics Committee (Approval date: 01.10.2020, Number: 2020/13-09). The Beck Anxiety Inventory was used. The data were analyzed using the program SPSS 20. In addition to descriptive terms (mean, standard deviation), analysis was performed using independent samples t-tests. Since all doctors and healthcare professionals are included, power analysis was not performed. Personal information and data of the patients was kept confidential. The value $p<0.05$ was accepted as significant in all statistical analyses.

RESULTS

Eighty-four healthcare professionals participated voluntarily and filled out the Beck Anxiety Inventory questionnaire. Forty-five were female and 39 were male. Of the nurses, 80% were female; only 14.7% of doctors were female. Fifty were nurses and 34 were doctors. The mean age was 30 ± 7.8 years. When we assessed the Beck Anxiety Inventory results, there were no statistically significant differences between men and women ($p>0.05$). However, anxiety was significantly higher in nurses than doctors ($p<0.05$).

DISCUSSION

Anxiety is a common emotional disorder that affects the psychosocial process (7). Therefore, it is expected that most of the anxiety indicators have been developed and applied in clinical settings. The main purpose of the Beck Anxiety Inventory is to suggest whether participants have any mental health problems and provide scientifically based feedback to help decide whether to consult mental health professionals. The Beck Anxiety Inventory is one of the most widely used clinical evaluation scales to assess anxiety (7).

Professions in the health sector are based on communication with people, so it is important the professionals are psychologically and physiologically healthy (8). One study state that people experience stress in situations they consider dangerous (9). Chiang and Chang found that working time was related to stress and symptoms of depression in nurses (10). In another study, anxiety symptoms were found more in women than men (8). The same study found that anxiety score for nurses working in intensive care and internal services were higher than those of nurses working in surgery. In our study, the higher level of anxiety in nurses than in doctors was statistically significant in terms of BAI and BAO. This may be because COVID-19 is a new virus, nurses work more and have more contact with patients than doctors, they are underpaid, the number of female nurses is higher than male nurses, and in addition, women are psychologically weaker Male doctors prefer to work in heavy workload units such as emergency and intensive care units. In this study, the concern of being infected was found to be high in doctors during the COVID-19 period. Their scores on the Beck Anxiety Inventory were high but not to a statistically significant degree (11) A study has shown that during the covid 19 period, healthcare professionals are concerned about themselves and their families (12). Healthcare professionals may

Table 1: Evaluation and comparison of the parameters in terms of the Beck Anxiety Inventory (BAI) scores of 84 healthcare workers.

Parameter		n	Mean	Std. Dev	T-test	P-value
Gender	Female	45	12.04	9.59	0.89	0.38
	Male	39	10.10	9.16		
Job	Nurse	50	16.82	10.06	0.036	0.048
	Doctor	34	11.62	10.08		

Table 2: Evaluation and comparison of the parameters in terms of the BAO scores of 84 healthcare workers.

Parameter		n	Mean	Std. Dev	T-test	P-value
Gender	Female	45	2	1.06	0.92	0.35
	Male	39	1.79	0.95		
Job	Nurse	50	1.88	0.98	0.036	0.046
	Doctor	34	1.34	1.04		

need psychological support during this pandemic period.

CONCLUSION

This study shows that during the COVID-19 pandemic, nurses have been exposed to more stress than doctors and all healthcare professionals are adversely affected. We believe that healthcare professionals should be provided with psychological support due to intensive work, very frequent close contact with the COVID-19 patients, and the fear of infection.

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REFERENCES

1. Zheng YY, Ma YT, Zhang JY, Xie X. COVID-19 and the cardiovascular system. Nature Reviews Cardiology 2020;17(5):259-260
2. Hacimusalar Y, Kahve AC, Yaşar AB, Aydin MS. Anxiety and hopelessness levels in COVID-19 pandemic: A comparative study of healthcare professionals and other community sample in Turkey. Journal of Psychiatric Research 2020; 129:181-188.
3. Choi EPH, Hui BPH, Wan EYF. Depression and anxiety in Hong Kong during COVID-19. International Journal of Environmental Research and Public Health 2020;17(10):3740.
4. Kurt O, Deveci, SE, Oguzoncul AF. Levels of anxiety and depression related to covid-19 among physicians: An online cross-sectional study from Turkey. Annals of Clinical and Analytical Medicine 2020;11:S288-S293
5. Stein MB. COVID-19 and Anxiety and Depression in 2020. Depression and Anxiety, 2020;37(4):302.
6. Kabacoff RI, Segal DL, Hersen M, Van Hasselt VB. Psychometric properties and diagnostic utility of the Beck Anxiety Inventory and the State-Trait Anxiety Inventory with older adult psychiatric outpatients. Journal of Anxiety Disorders 1997; 11:1:33-47.
7. Balestrieri, M, Isola M, Quartaroli M, Roncolato M, Bellantuono C. Assessing mixed anxiety-depressive disorder. A national primary care survey. Psychiatry Research, 2010;176:197-201.
8. Zengin L, Gümüş F. Anxiety and Depressive Symptoms in Nurses and Related Factors. Jaren, 2019;5(1):1-7
9. Özcan H, Subaşı B, Budak B, Çelik M, Gürel ŞC. et al. Relationship between self-esteem, social appearance anxiety, depression and anxiety in adolescent and young adult women. Journal of Mood Disorders 2013;3(3):107-13.
10. Chiang YM, Chang Y. Stress, depression, and intention to leave among nurses in different medical units: Implications for health care management/nursing practice. Health Policy 2012;108(2-3):149-57
11. Uzun ND, Tekin M, Sertel E, Tuncar A. Psychological and social effects of COVID-19 pandemic on obstetrics and gynecology employees. Journal of Surgery and Medicine 2020;4(5):355-358
12. Polat Ö, Coşkun F. COVID-19 Salgınında sağlık çalışanlarının kişisel koruyucu ekipman kullanımları ile depresyon, anksiyete, stres düzeyleri arasındaki ilişkinin belirlenmesi. Batı Karadeniz Tıp Dergisi 2020; 4(2):51-58.