ORIGINAL ARTICLE

Relationship between Job Stress and Job Performance among Nurses Facing Covid-19 Virus in Zahedan Teaching Hospitals In 2021

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ABSTRACT

Introduction: Coronavirus is an infection disease with respiratory symptoms and it is a virus that can be transmitted between humans as a mutated virus. Coronavirus-19 disease can lead to stress and anxiety among hospital staff. At present, one of the most important factors affected the occupational performance of the treatment staff and their ability to perform the overshadowed tasks effectively is Covid-19 disease. Therefore, this study was conducted to investigate the relationship between job stress and job performance of nurses in the covid-19 epidemic from the perspective of nurses in Zahedan teaching hospitals in 2021.

Materials and Methods: This descriptive-analytical study was performed by available sampling method. Data were obtained using forms collected during three months in the inpatient ward of covid-19 in Zahedan teaching hospitals. The research samples were 235 nurses working in different wards of the hospital participated in this study and answered the three-part questionnaire containing demographic and job information, stress resulted by covid-19 and job performance. The collected data were statistically analyzed using SPSS software, version 20. There were used the descriptive and analytical statistics including frequency, mean, standard deviation and t test.

Results: Most of the participants in this study were women (68%) under the age of 30 (59.4%). There is a significant relationship between the effect of Covid-19 on job stress and job performance. Thus, the effect of Covid-19 on job stress is direct, i.e. with the greater effect of Covid-19, the amount of stress increases by 39% (p = 0.00, r = 0.39). The effect of Covid-19 on the job performance was inversely so that with increasing the effect of Covid-19, job performance decreased by -20% (-r= 0.20, p=0.01). The findings showed there is a significant relationship between stress resulted by Covid-19 and the job performance.

Discussion: The level of stress in nurses working in Covid-19-related wards in Zahedan teaching hospitals is moderate. It seems that paying attention to nurses' education to deal with critical situations similar to Covid-19 and increasing personal protective equipment can be effective in preventing nurses from developing stress and anxiety, and then their job performance will be improved.

Keywords: Nurses, Covid-19, Job stress, Job performance

INTRODUCTION

COV-2019 infection is a respiratory infection associated with a new known corona-virus that is thought to have emerged and mutated as a human-animal transmissible virus or otherwise adapted to such an extent providing pathogenesis among humans. Covid-19 disease started in Wuhan, China in late December 2019 due to a new corona-virus. (1) Early symptoms of Covid-19 included fever, muscle aches, and fatigue, dyspnea (2).

Fear and anxiety caused by possible illness, has created a high and destructive psychological burden that can lead to mental disorders, weakening the immune system and reducing the body's ability to fight disease in people in the community, including the treatment team (nurses, doctors and ...)(3). Nurses are the main element of the care in the treatment team, which constitutes more than 10% of the treatment team and they are the first group on the front line of the Covid-19 pandemic. The work environment of the nurses has long-lasting stress, and this occurs in people working in helping professions who feel overwhelmed by the problems of others (4).

Meanwhile, due to the nature of work, heavy protective clothing, the use of the 95-N mask, the risk of infection and contamination of others, the health of nurses in corona-related areas is at risk, which can lead to psychological disorders (5). The study of Kawano et al. showed that nurses are more exposed to stressful issues than other occupations and their physical and mental healths affect the quality of work and patient satisfaction (6). On the other hand, several studies on nurses show a high prevalence of depression (7) .In the study of Ohler et al. showed the relationship between work environment, depression and nurses' absence from work(8).

The nature of the job of hospital staff is associated with a combination of technical and professional roles and tasks. On the other hand, human relations and empathy with patients and their companions have caused a lot of responsibility on these employees, which can lead to psychological complications (9).

One of the undesirable effects of anxiety and panic in people is the emergence of another complication called the occupational burnout. Many studies have reported that the symptoms of this disease appear after people experience constant anxiety and stress (10). The occupational burnout is a syndrome resulting from chronic work-related stress, with symptoms characterized by "feelings of energy depletion or exhaustion" increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and reduced professional efficacy. Occupational burnout is an emotional and behavioral disorder caused by

a lot of job stress that can change a person's lifestyle in general. So that people with this disorder become perfectionists and if they do not reach their desired ideal, they experience a kind of imbalance in the workplace and this causes them to be absent from work (11).

Therefore, it can be understood that anxiety and stress can lead to occupational burnout and it can have more serious complications by affecting mental health. This series of psychological complications such as dominoes have been created one after the other and each of them, in addition to leading to another complication, will have significant effects on people's productivity and quality of job performance (12). Therefore, the present study has been performed to investigate the stress of nurses working with their job performance in teaching hospitals in Zahedan in 2021.

MATERIALS AND METHODS

This descriptive-analytical study was performed by available sampling method in inpatient wards of Covid-19 in teaching hospitals of Zahedan. Inclusion criteria included: employment in inpatient wards of Covid-19 patients, having at least 1 year of work experience and informed written consent in this study. In wards related to patients with Covid 19, the 235 nurses were enrolled according to the inclusion criteria. The sample was selected by the researcher in person in several stages to the wards related to patients with Covid 19. Data collection tools included a demographic questionnaire, a DASS -21standardized questionnaire that assessed nurses' depression, anxiety, and stress. The validity and reliability of this tool in Iran has been reviewed and confirmed by Najafi et al. (2013). Job performance was also completed and evaluated based on a researcher-made checklist. After collecting data, statistical analysis was performed using SPSS software version 20 and descriptive and analytical statistical analysis including frequency and mean and standard deviation and t-test were performed.

RESULTS

Participants in this study were 68% female. Based on marital status and age, it was found that most of the participants were married and were between 20 and 30 years old. in this study, the frequency of people who had severe anxiety in physical and psychological dimensions was 14.7%, 12.5% and 11.9%, respectively. There was a significant difference in job performance between age groups, marital status, job groups and work experience (p <0.05). Regarding the depression and anxiety related to Covid-19, individuals had a significant difference based only on gender (p <0.001). According to the regression test, job performance in people with moderate and high levels of anxiety was 5.5 and 9 times lower than those who did not have anxiety or had low levels of anxiety (p <0.001).

DISCUSSION AND CONCLUSION

Stress and anxiety is one of the most common psychological disorders as the natural response to stressful conditions and dangers that threaten human health. The sudden onset of 19-COVID has led to anxiety (13). According to the findings of the study, moderate and severe levels among the persons with symptoms of anxiety were 26.3% and 11.9%, respectively. Based on similar research findings, the prevalence of severe anxiety among medical staff during the coronavirus epidemic was equal to 0.14%, which is somewhat consistent with the results of the present study (14). The present study, it was found that in general, 38.2% of hospital staff had moderate or severe anxiety. However, according to the results of the Zhang study, the prevalence of anxiety in these people was 48.25% (15).

Also, the study of the relationship between contextual variables with occupational burnout showed that young and single people with little work experience are more prone to occupational burnout than their colleagues. These results are consistent with the findings of studies by Kruse et al (16).

According to the aim of this study, "Determining depression, stress and anxiety of nurses in Ali Ibn Abi Talib Hospital in Zahedan in Covid-19 pandemic", the severity of most of the disorders mentioned in nurses is in the moderate range. Based on the results of previous studies obtained at the time of the spread of SARS and Ebola, the prevalence of psychological disorders such as anxiety, stress and depression has been reported high (17) . In the study by Lai et al. on physicians and nurses in a hospital in Wuhan, China, conducted during the publication of Covid-19 disease, shows that medical care workers experience a high degree of depressive symptoms with 50.4% and anxiety with 44.6% (19), which is consistent with the results of the present study (18).

In the study performed by Koh et al., more than half of the nurses reported 56% stress (19). In a study by Wu et al in 2003, on the mental health of medical personnel involved in the transmission of SARS virus, about 10% of staff reported high levels of post-traumatic stress disorder (20). Also in the study of neurosurgery and colleagues who examined the general health and emotional reactions of nurses working in the intensive care units of two hospitals of Baqiyatallah University of Medical Sciences, the rate of stress, anxiety and depression in nurses were 33%, 33.9% and 30.8%, respectively (21). Due to the nature of the work, heavy protective clothing, N-95 mask, risk of infection and contamination of others are at risk of psychological disorders (22). They should support the staff financially and spiritually to achieve the desirable outcomes as far as the organizational commitment is concerned (23). According to the definition of world health organization (WHO), physical health, mental health, and social health are different dimensions of health and job stress affect staff mental and physical health (24).

The results of the present study showed that anxiety and stress scores in female nurses are higher than male nurses. A study performed on doctors and nurses at a hospital in Wuhan, China, during the spread of Covid-19 showed that women reported higher rates of stress and anxiety in direct contact with Covid-19-infected patients (19) which are consistent with the results of the present study. There is occupational stress in every profession. Nursing is essentially recognized as a stressful job and it has caused that stress to be one of the issues considered by the nursing profession(25). The level of stress of the general public, medical staff working in covid-19 section

and non covid-19 section were reported 68.1± 0.8, 1.4±4.9 and 61.0±1.8, respectively. It was reported that according to the defined cases, all of them were mild and there was no statistically significant difference between these groups (p = 0.374). The psychological effects of the corona virus epidemic are undeniable. Living conditions, jobs and job stability, physical health and worries about family members are all factors that affect the amount of stress caused by the new infectious disease. The results of studies on the level of stress in nurses in different wards are contradictory. The results of a study showed that nurses in the emergency department are more stressed13 and in another study it was shown that nurses working in the intensive care unit (ICU)are more stressed(26).

In order to prevent the impressive side effects of stress and depression in health care workers, especially nurses, the educational programs are the effective step that can be taken to maintain the health of medical staff and improve their job performance.

Conflict of interests: The authors reported no conflict of interest.

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