Psychological Status of Nurses Providing Care for Patients with COVID-19 at Baqubah Teaching Hospital

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Abstract

Objectives: The present study aims to assess the psychological status of nurses providing care for patients with COVID 19.

Methodology: a descriptive correlation design used in the present study established was for a period from October 10th, 2020 to March 20th, 2021. The study was conducted on a probability (convenient) sample of 100 nurses who providing care for patients with COVID-19 which were selected from isolation wards. The instruments of the study are adopted and modified for the purpose of this study, patients health questionnaire(PHQ), fear of COVID19 scale(FCS), general anxiety disorder scale(GAD). The data were analyzed through the application of descriptive and inferential statistical approaches which are applied by using SPSS version 22.0.

Results: The majority of the study (43 percent) of nurses had minimal depression, (52 percent) had minimal anxiety, and (55percent) had minimal fear.

Conclusions: The study concluded that minimal depression was prevalent among nurses who were male gender, married, and had small family. Minimal fear was significant with nurses who were not infected with COVID-19, did not have a history of psychological disorders, and highly significant among nurses who did not use any tobacco, alcohol drinking, and substance abuse.

Recommendations: Emphasis should be focused on increasing the awareness through educational role of psychological misfortune COVID19 pandemic among nurses who work in isolation wards. Psychological care counselling and guidance are nessecary to increase nurses' vulnerability and strengthen their mental health which helps to encounter any psychological burden caused by COVID 19 pandemic

Keywords*: psychological status, nurses, COVID-19.

Introduction

Coronavirus disease, formally designated as COVID-19 by the World Health Organization (WHO), is an extremely infectious respiratory disease caused by a severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). COVID-19 is like influenza symptoms, including elevated body temperature, cough, and shiver, which can lead to respiratory infection crisis and death [1]. Iraq had presented a cure rate lower than those informed by Iran, Turkey and Jordan; and higher than Saudi Arabia and Kuwait. Healthcare workers represented about (5percent) of the total confirmed cases. These results enable the researchers to know COVID-19 epidemiology and prevalence in Iraq that can aware the community population of the danger of this unusual epidemic and serve as a reference for future studies [2].

According to WHO, infectious diseases universally were the third leading cause of death. Emerging worldwide pandemics case which great huge danger to individuals and communities. The present and a most significant one in recent times was the COVID-19 pandemic. Due to its rapid extent, virulence, deathly in severe cases, and unknown cure, it had been posed a massive danger to human life and health [3]. Psychological impact of previous infectious outbreaks, such as the severe acute respiratory syndrome (SARS) that was like to the COVID-19 pandemic, had found full psychological burdens among healthcare workers and the general public such as anxiety, depression, panic attacks, or psychotic symptoms. [4]

Nurses were the most exposed group of healthcare workers who cared for patients with COVID-19. Those considered at the war zone of the COVID-19 pandemic. Nurses had been vulnerable to coronavirus and were facing different somatic and psychological problems, even death. In USA there were nurses about four million and twenty million crosses the world, and however, more requirement for nurses[5]. In critical cases, requirements such as support for nurses to organize the duration of each shift to permit nurses to care for pandemic patients. Burnout, an obstacle due to demanding conditions in a nursing wok, was another outcome of pandemics on nurses[6]. Burnout had considered a major problem to the nursing profession due to physical and psychological pressure to the degree where affected their thought and even decision-maker as HCWs. Burnout could also have a direct influence on patients heal, elevated death, and the patient became dissatisfied. Nurses might exposure to losing their permits to practice due to burnout even after the pandemic end. [7]

Psychological disorders could be affected by the increased hazard of exposure, high job and intense pressure. These could continue for a long period, and several nurses might try to suicide. [8]

In Iraq at time 24 May 2020, a total of two hundred HCWs had been confirmed infected with COVID-19. Reported five percent of the total infected cases. The important data of confirmed cases were fom Baghdad, Najaf, Basra and Sulaymaniyah which was about eighty percent. The majority of confirmed HCWs were nurses about sixty percent, but physicians were thirty percent. Medical staffs considered the largest opportunity of being at risk for infection due to care of confirmed patients. [9]

A previous study informed that the occurrence of mental distress in medical staff through the COVID-19 was higher than in the previous epidemics.[10] Increased apprehensions in healthcare workers and their families could harm providing health care, which could later discourage and isolate confirmed patients [11]. In China data provided showed Wuhan HCWs as the first centre of COVID-19, suffering from sever levels of anxiety, depression, fear, and stress, due to extreme work burden, direct contact with the disease, and the opportunity of infection. [12]

One of the causes that could elevate anxiety level and psychosocial complications during COVID-19, particularly with inconsistent and incorrect informations about the pandemic separation , exposure to and closes monitoring of internet applications as facebook, Instagram, youtube, etc. Governments should be attentive to decrease anxiety in the community, For instance, China's government had to provide mental service stations. [13]

In 2014, in Brazil, a study documented the prevalence of in the health care sector, physicians and nurses became the most vulnerable staff to high difficulties. Due to their profession, physicians were exposed to depression because previous research found that the incidence of depressive symptoms among physicians in China was around 28.13 percent. Another research was conducted among nurses in the same community and found that 38 percent of nurses had signs of depression.[14]

Healthcare workers (HCWs) in their societies were also stigmatized by people during serious infectious disease outbreaks; specifically, HCWs had been feared, rejected, ignored, or ostracized because of fear separated by public that HCWs were carried of infection. [15]

HCWs who were quarantined worked in SARS units or had family or friends infected with SARS, had noticeably more anxiety, depression, frustration, fear, and post-traumatic stress than those who had no such knowledge.[16] COVID-19 nursing staff should also be provided with greater support, care, and understanding by the community and hospital leaders

and give them better humanistic care. To avoid acute stress disorder (ASD) and post-traumatic stress disorder(PTSD)., it was advised that care teams be set up to provide nursing staff with early, full-course, personalized and intensive psychological assistance to nursing staff.[17]

Objectives of the Study

To assess the psychological status including depression, anxiety, and fear of nurses who providing care for patients with COVID 19 at Baqubah Teaching Hospitals.

Methodology

A descriptive correlational design was conducted on nurses' work in isolation wards of covid19 in Baqubah city for the period of (October 10th, 2020 to March 20th, 2021). The study was carried out to assess the psychological status including depression, anxiety, and fear of nurses

The ethical consideration of research was accomplished by obtaining the agreement from the Ethical Committee for Research at the College of Nursing, University of Baghdad. Finally; the informed content was obtained from the nurses to participate in this study before collecting the data and filling the questionnaire.

The purpose of administrative and arrangements issues for conducting the research, permission was asked from the Council of the Nursing College/ University of Baghdad for this study then obtained approval from the Ministry of Planning/ Central statistical organization, and also permission was obtained from the Ministry of Health including Baqubah teaching hospitals.

The setting of the study includes nurses who work in isolation wards at Baqubah teaching hospital.

The sample of the study includes non-probability (Convenient) sample of (100) nurses, which were selected from nurses working in isolation wards according to the inclusion criteria that listed below, the sample was distributed as (43) subject selected from Dar-Al Diaffa, (40) subject selected from Al-Shifaa center, and (17) subject selected from the epidemiological ward. (60) Refuse to participate in the study, and (30) uncompleted fill the questionnaire form.

The questionnaire of the study was a) nurses psychological health scale (Depression in providing care for patients with novel coronavirus PHQ-9), Scale of fear arising from caregiving for patients with coronavirus: scale of general anxiety disorder for nurses in providing care for patients with novel coronavirus(GAD-7).

Patient Health Questionnaire contains (9) items. These items were categorized as not at all, several days, more than half the days, nearly every day questions. These were scored as (0) for not at all, (1) several days, (2) more than half the days, (3) nearly every day. The time of the questionnaire answer list for each nurse took about (15_20) minutes. The PHQ was developed by Spitzer, total score which divided into four levels: Scores represent Minimal depression 0-4 , Mild depression 5-9 , Moderate depression 10-14 , Moderately severe depression 15-19 , and Severe depression 20-27.

Fear of COVID-19 Scale contains (7) items. Nurses report their level of agreement with using a five-item Likert type scale.:Answers included "strongly disagree," "disagree," "neither agree nor disagree," "agree," and "strongly agree". The lowest score probable for each question is 1, and the extreme score is 5. A total score is calculated by accumulating each item score (going from 7 to 35). The maximum score mean great fear of coronavirus-19. A total score could be calculated by adding up each item score (ranged from 7 to 35). 7-13 minimal fear, 14 – 20 mild fear, 21 – 27 moderate fear, 28 – 35 severe fear

Part IV GAD-7 Anxiety Severitythis part contains (7) items. Items scores of 0, 1, 2, and 3, to the answer categories of "not at all," "several days," "more than half the days," and "nearly every day," respectively. GAD-7 total score ranges from 0 to 21. Scores represent: (mild 0-5) (moderate 6-10) (moderately 11-15) (severe anxiety 15-21).

Validity: the instruments were presented to a panel of (12) experts who had more than ten years experience in their field more valid using content and face validity method, no changes were made according to the experts' because scales that the researcher used in this study were international scales.

Reliability: Reliability had shown that the items of the PHQ-9 were highly consistent (Chronbach's alpha = .88). The item-total correlations were high for most items (.62 – .77) and moderately high for two items (> .53). There was a significant p < 0.0001. Reliability analyses had shown that the items of the GAD-7 scale were highly consistent (Chronbach's alpha = .95). The item-total correlations were high for all items (.7 – .94). Bartlett's test was highly significant, $X2 (21) = 609.8$, p = 0.00, and the KMO statistic was high (0.9), indicating a good relationship between the data and an adequate sample for factor analysis[18]. Fear of COVID-19 Scale values of reliability such as internal consistency (α = .82) and test–retest reliability (ICC = .72) were acceptable.[19]

The data was gathered throughout the utilization of self-report questionnaire 'Arabic version' and as mean for data collection and through self-report with nurses who work in COVID19 wards, excepted some of their were refuse to participate in the study.

The statistical studies were carried out using IBM SPSS Statistics version 22.0, a statistical kit for social science. To achieve the study's goals, data processing was used in conjunction with descriptive and inferential statistical approaches.

Results

Table (1) Assessment of Depression Status among Nurses Work in Isolation Wards for COVID-19:

Depression	Frequency f	Percentage %
Minimal depression	43	43%
Mild depression	32	32%
Moderate depression	12	12%
Moderately sever depression	12	12%
Sever depression	1	1%
Total Mean= 1.96 Std. Deviation= 1.06	*100*	*100%*

f: Frequency, %: Percentage, M: Mean for total score, SD: Standard Deviation for total score. Minimal depression 0-4 , Mild depression 5-9 , Moderate depression 10-14 , Moderately severe depression 15-19 , and Severe depression 20-27.

The presented table showed that 43% of nurses had minimal depression and 32% of them have mild depression according to the score of patient health questionnaire Scale.

Table (2) Assessment of Anxiety Status among Nurses in Isolation Wards during COVID -19

Anxiety	Frequency f	Percentage %
Minimal anxiety	52	52%
Mild anxiety	32	32%
Moderate anxiety	13	13%
Sever anxiety	3	3%
Total / Mean= 1.67 Std. Deviation= 0.8	*100*	*100%*

f: Frequency, %: Percentage, M: Mean for total score, SD: Standard Deviation for total score. GAD-7 total score for the seven items ranges from 0 to 21. 0–4: minimal anxiety

5–9: mild anxiety, 10–14: moderate anxiety, 15–21: severe anxiety

The presented table showed that 52% of nurses had minimal anxiety and 32% of them have mild anxiety, and only 3% have sever anxiety according to the score of general anxiety disorder scale

Table (3) Assessment of Fear Status among Nurses in Isolation Wards during COVID-19 Pandemic:

Fear	Frequency f	Percentage %
Minimal fear	55	55%
Mild fear	29	29%
Moderate fear	8	8%
Sever fear	8	8%
Total/ Mean= 1.69 Std. Deviation= 0.9	*100*	*100%*

f: Frequency, %: Percentage, M: Mean for total score, SD: Standard Deviation for total score. A total score could be calculated by adding up each item score (ranged from 7 to 35). 7-13 minimal fear, 14 – 20 mild fear, 21 – 27 moderate fear , 28 – 35 severe fear

The presented table showed that 55% of nurses had minimal fear and 29% of them have mild fear according to the score of fear covid19 scale.

Discussion:

Table (1) 43% of nurses had minimal depression and 32% of them have mild depression according to the score of patient health questionnaire scale. Cai (2020) conducted a study in China to assess the level of the psychological status and risk factors association between nurses in isolation wards found that 39.7% had minimal depression were in frontline nurses at outbreak period, and 38.5% had mild depression[20]. Que (2020) had done a study in China to assess the Psychological effect of the COVID-19 on HCWs, showed that 53.85% have minimal depression, 34.13% have mild depression[21]. Tan et al.(2020) conducted a study in Singapore on 470 HCWs to assess the prevalence of depression, anxiety during the COVID-19, which showed 8.1% had depression[22]. Arafa (2020) had done a study in KSA to assess depression, anxious, and stress in HCWs in Egypt and Saudi Arabia experienced during the COVID-19, showed that 426 HCWs 24.2% nurses 69% had depression[23]. Lai et al.(2020) conducted a study in china informed a high incidence of depression (50.4%) among 1257 frontlines Chinese HCWs on during pandemic[24]. The researcher opinion on this result 43% of nurses had minimal depression due to their love to provide health care for patients with

covid-19, their willingness to provide service to heal patients that lead to feel comfortable psychologically and socially.

Table (2) showed that 52% of nurses had minimal anxiety and 32% of them have mild anxiety, and only 3% have severed anxiety according to the score of general anxiety disorder scale. Cai (2020) conducted a study in China to assess the level of the psychological status and accompanying risk factors among nurses, found 61.5% normal or minimal level of anxiety between nurses in a stable period of COVID-19[20]. Hu et al. (2020) conducted a study in Wuhan of two thousands of frontline nurses from two hospitals, which was to assess Frontline nurses' burnout, anxiety, depression, and fear, showed 58.6% had no anxiety and mild anxiety 27.1%[25]. The researcher opinion about this result nurses had a high percentage of minimal anxiety the nature of nursing work in most cases is difficult, so the nurse could face the challenges and difficulties of work. .

Table (3) showed that 55% of nurses had minimal fear and 29% of them have mild fear according to the score of fear covid-19 scale. Alnazly et al. (2021) conducted a study in Jordan showed that 55% of HCWs had a moderate level of fear[26], Hu et al. (2020) in China to examine nurses'anxiety, depression, and fear, showed moderate to high level of fear[25]. The researcher opinion the result of research because most nurses had experience in dealing with infectious disease, and there were selected work in isolation wards electively.

Conclusion

1- The majority of the study sample according to psychological status was 43% of nurses had minimal depression, 52% had minimal anxiety, and 55% had minimal fear.

2- Psychological status of nurses providing care for patients with COVID _19 at Baqubah teaching hospital showed a minimal level of depression, anxiety, and fear.

Recommendations

training courses about COVID 19, stress management, and self-care strategies should be established for all nurses, especially who are in contact with COVID 19 injured patients.

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