ORIGINAL ARTICLE

Quality of Nursing Care in Respiratory Isolation Units of Coronavirus Disease

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ABSTRACT

Background: COVID-19 has had a significant impact and challenge, especially for nursing practices, and since the quality of nursing care is one of the most important priorities in the field of health care, it has had its share of these challenges and impacts due to the epidemic. The information available about quality of nursing care in healthcare facilities during the COVID-19 pandemic is very limited.

Objective: This study aimed to fill this gap by assessing quality of nursing care in respiratory isolation units of coronavirus disease.

Methodology: A descriptive cross-sectional design was carried out in four hospitals at isolation units of coronavirus disease from the period (21th December, 2021 to 27th January, 2022). A non-probability (convenience) sampling method consists of (112) patient were selected convenience based on the study criteria. The tool used to measure the quality of nursing care is the Patient Satisfaction with Nursing Care Quality Questionnaire-Arabic (PSNCQQ-Ar).

Results of the study: presented that patients' satisfaction with quality of nursing care were within high score in all items because the mean more than (3.18), except for item (19) which presented that patient reflected they have low level of health (Mean = 2.8).

Conclusion: The level of quality of nursing care provided to patients in the respiratory isolation units for Coronavirus disease was not affected, as the level of quality of care remained high.

Keywords: Quality of Nursing Care, Respiratory Isolation Units, Coronavirus Disease.

INTRODUCTION

On 31 December 2019, a new strain previously unknown to humans was discovered, a group of viruses that cause diseases ranging from the common cold to more serious diseases. Through a report of a cluster of cases of viral pneumonia, where the world health organization has learned that those cases were in Wuhan, people's republic of China, after the identification of a new Corona virus, it was temporarily named by the Chinese authorities as "nCOV-2019"[1]. In 2019, as nurses did not have enough opportunity to prepare and respond to the first wave of coronavirus globally for the purpose of providing quality care to critically ill patients[2]. Due to the widespread spread of Corona virus disease (Covid-19), which led to an international concern, (WHO) declared a state of emergency on 30 January 2020 [3]. In the midst of these events, the health care system sought during the pandemic period to prevent infection and provide the infected with high-quality care [4]. One million people globally have suffered from the damage caused by the Covid-19 virus to their health and lives, and health care systems have been disrupted in many countries, including nurses who are fighting on the front lines and working to protect all those affected by this epidemic[5]. At least 7,000 health workers died of COVID-19 worldwide, which led to these horrific statistics increasing the rate of fear and infection among health personnel[6].

Nurses have played an essential role in prevention and control during epidemics, as it is of paramount importance in disease management to maintain their health[7]. The work to provide care for patients lying in isolation rooms is a great challenge, which is what the nurses do in these units, where the nurses feel a great burden, due to the different patterns of workflow from what is familiar in other units in the hospital, where the isolation units suffer from a shortage in the number of nurses, so It is very necessary to arrange work shifts in order to benefit from the efficiency of the available nursing care [2]. A work schedule for nurses working in isolation units was organized from (8-12) hours during the day in order to fill the shortage in the number of staff, but despite that, studies have confirmed that working shifts of up to 12 hours or working overtime leads to a decrease in the quality of nursing care and patient safety[8]. Long shifts working under difficult conditions resulting from the high number of people infected with Covid-19 virus with the increase in the number of deaths leads the health team to occupational stress and a high rate of anxiety and depression[7]. Accordingly, both job stress and occupational satisfaction are among the factors that affect the productivity of the workforce Maintaining these levels of occupational satisfaction among healthcare workers is critical to achieving high quality medical service [9,10].

Quality of care is the specific procedures and objectives of any nursing intervention that ensure that each patient receives care according to the agreed level [11]. To meet the patient's needs for technical care and therapeutic relationships with nurses, a comprehensive evaluation and examination of the quality of nursing care, which includes structures, processes and outcomes, is necessary to ensure the provision of high-quality care in all aspects [12]. Nursing staffing, Scheduling /Shifts, Care environment (Work environment) are among the factors affecting the quality of nursing care[13]. The COVID-19 pandemic has posed a particular challenge to the practice of nursing. Although the quality of nursing is considered one of the priorities today in the field of health care, there is currently limited information available in health institutions during the COVID-19 pandemic about nursing care[14]. quality of care and Job satisfaction play a major role and directly affect the healthcare industry If nurses are unable to provide quality care to patients, it will negatively affect them[15]. In a survey conducted in the United States in light of the stench of Covid-19, the job satisfaction of nurses was found to be negative, as 60% of nurses in March 2020 expressed their desire to get a new job[16].

METHODOLOGY

Study Design and Population: A descriptive survey design was used to achieve the study's objectives. Patients infected with COVID-19 who are in isolation units were the population in this study.

Sampling and Sample Size: A non-probability (convenience) sampling method was used to collect the data. The inclusion criteria were patients lying in respiratory isolation units for coronavirus disease. Adult patients 18 years old and above. Males and females with all educational levels. Patients agreed to participate in the study. While exclusion criteria included patients under the age of 18 years. Patients with diseases other than COVID-19. They did not agree to participate in the study. And did not answered the questionnaire completely. Taking all patients lying in those units because of their small number. According to the researcher's ability in light of the available conditions, it was not possible to determine the population of the study samples, and therefore it was also not possible to use the equations for determining the exact minimum acceptable sample size. The

researcher resorted to selecting a sample from the original study community to be representative of its community. The sample size (112 patient).

Data Collection and Setting: The data were collected from (21th December, 2021 to 27th January, 2022) using a self-administered questionnaire (cross sectional) Where relied on (PSNCQQ-Ar) Patient Satisfaction with Nursing Care Quality Questionnaire-Arabic (Laschinger et al., 2005) The data was collected from four hospitals; Karkh two hospitals (Al-Imameen Al-Kazimin Hospital and Dar Al-Salam Hospital) Rusafa two hospitals (Al Atta Hospital and Medical City Department of Al-Shifa Crisis Center).

Instrumentations: Patient Satisfaction with Nursing Care Quality Questionnaire-Arabic (PSNCQQ-Ar). is a self-reported the original (PSNCQQ) contains 21 items. The PSNCQQ reliability estimates were comparable across hospital types, indicating adequate readability and applicability. This tool was in Arabic, as permission was taken to use it from the researcher who worked on converting it into Arabic. The reliability 0.96 This is what the PSNCQQ-Ar Cronbach's alpha was, which is an excellent ratio and is similar across the different hospital units. This is what the split half-factors were 0.91 and 0.95 for parts 1 and 2, respectively, with a Guttmann split half-factor of 0.94. The validity item-level content validity index ranged from 0.83 to 1, and the scale-level content validity index was 0.94, according to an analysis of the responses of the six expert raters. Like the original PSNCQQ, the PSNCQQ-Ar is a 5-point the response to this tool ranged from 1 (poor) to 5 (excellent), all according to the Likert scale. When measuring the sensitivity of the PSNCQQ, it was found that the excellent/very good group had higher scores than the poor/fair group. It was (M =3.18, SD = 0.59, and M = 1.17, SD = 0.71) for the high and low groups, respectively[17].

Data Analysis: The data was entered into the IBM-Statistical Package for the Social Sciences (SPSS) version 23 software program and analyzed using inferential statistics. Frequencies and Percentage were to describe the demographic and occupational characteristics of patients. Mean and Standard Deviation were used to determine the level of quality of nursing care based on patient satisfaction.

Ethical Considerations: To conduct the study, permission was obtained from the Ethical Committee of the College of Nursing, University of Baghdad and reference number 24 and on 30 November, 2021, where the researcher pledged to keep with the data of the participants individually using the data obtained without any actual or potential harm to all participants in this study.

RESULTS OF THE STUDY

Table 1: Distribution of the Study Sample (Patients) by their Demographic Characteristics.

Age/ years	F	%
18 – 27	1	.9
28 – 37	8	7.1
38 – 47	6	5.4
48 - 57	25	22.3
58 and more	72	64.3
Total	112	100
Mean ± SD	63.1 ± 15.4	
Gender	F	%
Male	46	41.1
Female	66	58.9
Total	112	100
Marital status	F	%
Single	6	5.4

Married	75	67
Divorced	1	.8
Widowed	30	26.8
Total	112	100
Education Level	F	%
Primary Degree	72	64.3
Secondary Degree	21	18.8
Diploma Degree	5	4.5
Bachelor`s degree	11	9.7
Higher Degree	3	2.7
Total	112	100
Type of Job	F	%
Free work	29	25.9
Governmental Employee	9	8
Private Sector employee	1	.9
Unemployed	2	1.8
Housewife	57	50.9
Retired	14	12.5
Total	112	100
No. of admission to the hospital during the last two years	F	%
1 – 5 times	105	93.8
6 – 10 times	4	3.5
11 – 15 times	1	.9
16 – 20 times	1	.9
21 times and more	1	.9
Total	112	100
How long have you been admitted and stayed at the hospital (days)?	F	%
1 – 7 days	94	83.9
8 – 14 days	9	8
15 – 21 days	4	3.6
22 days and more	5	4.5
Total	112	100
Do you stay at the room in the hospital…?	F	%
Alone	59	52.7
With another patient	18	16.1
With several patients	35	31.2
Total	112	100
Does any of your relative accompany you?	F	%
Yes	111	99.1
No	1	.9
Total	112	100
The sheet (questionnaire) is filled by	F	%
The patient	15	13.4
Another person	97	86.6
Total	112	100

F= frequency, %= Percentage

This table indicated that the majority of the study sample (patients) (64.3%) have 58 years of age and older, and (58.9%) of them were female. In regard to the subject marital status, the majority of the sample were married, and they accounted for (67 %) of the whole patient sample. Relative to patients' education level, the greater number of them were with primary degree and they accounted for (64.3 %). Approximately, half of the study sample were housewife and they accounted for (50.9%). The majority of the patients were admitted to 1 – 5 times to the hospital at the last two years and they accounted for (93.8%), in addition, (83.9%) of them were stayed 1 – 7 days at the hospital. More than half of patients (52.7%) were stayed alone in the room at the hospital, and (99.1%) were accompanying with relative. The sheet (questionnaire) was filled by another person among most of the study patients which accounted for (86.6%) of the total sample.

Table 2: Patients' Satisfaction with Quality of Nursing Care

Items	excellent	Very good	good	acceptable	bad	Mean	Sig.
1-The information provided to you: How clear and comprehensive is the information provided to you by the nurses regarding examinations and treatments, and what do you expect from them?	82	22	6	2	0	4.64	H
2- Instructions: How good are the instructions given to you by your nurses regarding examinations and procedures?	79	24	6	3	0	4.59	H

	85	19	4	4	0	4.65	H
3- Ease of access to information: How are nurses willing to answer your questions?	85	19	4	4	0	4.65	H
4- Information provided by nurses: How do nurses communicate with patients, their families and doctors?	80	25	5	2	0	4.63	H
5-Telling family and friends: How often do nurses communicate with your family and friends to let them know about your situation and needs?	71	25	9	6	1	4.41	H
6- Involving family and friends in care: How often do the nursing staff allow your family and friends to help with your care?	73	26	10	2	1	4.5	H
7-Nurses' Attention and Care: How kind and respectful have you received from nurses while caring for you?	88	19	4	1	0	4.73	H
8- The nurses' attention and concern for your condition: How confident are the nurses about your condition and how they follow up on your situation and needs?	84	21	4	3	0	4.66	H
9- Paying attention to your opinions: To what extent did the nurses ask you what you think about the procedures they take and the decisions that concern you, and did they give you options in that?	72	25	5	8	2	4.4	H
10- Considering Your Needs: How willing and flexible are the nurses to meet your needs?	82	22	3	5	0	4.6	H
11- Nurses' daily routine: How well do nurses organize their work to meet your needs?	82	21	7	2	0	4.63	H
12- Help: How can the nurses reassure you and make you feel comfortable?	82	18	10	2	0	4.6	H
13- How quickly nurses respond when you call: How quickly do nurses respond when you call them?	82	23	4	2	1	4.63	H
14- The skill and competence of nurses: How well are the procedures provided by the nurses? For example: giving medicines and solutions	81	24	5	1	1	4.63	H
15-Organizing care: How much teamwork is there between nurses and other health care providers during your care?	84	22	5	1	0	4.68	H
16- The calm atmosphere provided by the nurses: How calm, calm and safe are the nurses?	80	20	9	2	1	4.57	H
17- Privacy: How considerate are nurses about your privacy?	83	21	6	1	1	4.64	H
18- In general, what quality of care and services did you receive during your stay in the hospital?	79	25	6	1	1	4.6	H
19- In general, how is your health?	11	19	38	26	18	2.81	L
20- In general, what quality of care did you receive from the nurses during your stay in the hospital?	75	28	8	1	0	4.58	H
21- Based on the nursing care I received, I advise those close to me and my friends to choose this hospital in case they need it "God forbid"	99	5	7	1	0	4.8	H

This table presented that patients' satisfaction with quality of nursing care were within high score in all items, except for item (19) which presented that patient reflected they have low level of health (Mean = 2.8).

DISCUSSION

It appears from (Table 1) the age of the patients with the highest frequency is 58 years and older, at a rate of 64.3%. The age group that ranges between (18-27) years is the least frequent, which was 0.9%. Studies that support the current findings[19]. While studies disagree with the current findings[18]. It was noted that the percentage of females amounting to 58.9% is higher than the percentage of males amounting to 41.1%. One of the studies with results similar to the results of the current study[18]. In another study with results contrary to the results of the current study[19]. The percentage of married patients are the highest, which amounts to 67%, while the percentage of divorced patients are 0.9%, which is the lowest percentage with regard to marital status. Among similar studies [20]. In one of the studies with results contrary to the current study[21].

The percentage of education level among patients with the highest frequency is the primary degree, which was 64.3%, while the percentage of the highest degree was 2.7%, and it is the lowest percentage compared to other levels of education. Among the studies that support the current results [21]. The studies that differ from the current results[20]. The percentage of housewives 50.9% as a job for patients are higher than the rest of the jobs, while the percentage of working as an employee in the private sector was the lowest, where it was 0.9%. Among the previous studies with results that are identical to the results of the current study[18]. One study found that the result was different from the current study[21].

The number of hospital admissions during the last two years the most frequent is 1-5 times, where it was 93.8%, while the number of times that ranged between (11-15), (16-20), (21-and more) and the rate of 0.9% which is less frequent. One of the previous studies indicated, with results similar to the results of the current study[20,22]. In one of the previous studies with results contrary to the current study[19]. The percentage of the hospital stay rate of (1-7) days are 83.9% and is considered the most frequent compared to other days, while (15-21) days were the least frequent at 3.6%. The studies similar to the current results[20]. Among the previous studies, which contradicted the results of the current study[22]. The percentage of patients lying in private rooms (alone) is 52.7%, which is the highest percentage compared to if a number of other patients shared it, where it constituted 16.1%. Among the previous studies similar to the current result[20]. While from previous studies that contradict the results of the current study[22].

The percentage of patients who were accompanied by one of their relatives were very high, reaching 99.1%, while the percentage of patients who were alone 0.9%. There isn't similar study as well as there isn't different study (that does not agree) the results of the current study(researcher). It was noted that the percentage of companions who filled out the questionnaire was 86.6%, which is higher than the percentage of filling out the form by the patients themselves, which was 13.4%.

There isn't similar study as well as there isn't no different study (that does not agree) the results of the current study(researcher). It appears from (Table 2) the percentage of patients' satisfaction with the quality of nursing care was within a high degree because all items with a mean of not less than (4.4) except for item (19), which reflects a low level of health for the patient (Mean = 2.8). Among the previous studies conducted in Riyadh, Saudi Arabia, which supported the result of the current study [20]. While one of the previous studies had results contrary to the results of the current study[23].

CONCLUSION

The epidemic didn't affect on the level of quality of nursing care provided to patients lying in isolation units. Although the health condition of most patients was not good due to the lack of a cure for this virus, the quality of nursing care was of high levels.

Recommendations: Providing all patients lying in isolation units with information sheet about the disease and instructions regarding the type of foods that increase immunity, in addition to the instructions that must be followed to maintain the patient's health. Provide the patients' accompanying with health instructions and measures to be taken to maintain their health and prevent transmission of infection to them from the patients.

Limitations: The sample size was very small which forced the researcher to attend and travel for a day and for a month to the four hospitals in Baghdad for isolation of corona patients for the purpose of collecting the largest possible number of patients and taking them as a sample for study. Because of the small number of patients lying, the researcher had to add 7 days after the specified month to collect the sample in order to collect the largest number of patients.

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