

Assessment of Nursing Care Needs of Patients with Covid-19 Admitted at a Selected Hospital in Chennai

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Abstract

Covid-19, the Corona virus infection, has devastated humanity and this pandemic has taken massive toll of people's lives. In Covid-19, the need for basic and advanced nursing care and the overall nursing workload had increased dramatically. The present study aimed to assess the Nursing care needs of Covid-19 patients. A descriptive research study was conducted among 60 patients who were admitted in Covid wards with mild to moderate symptoms. The samples were selected using non-probability purposive sampling technique. A structured tool was used for data collection which included items on demographic variables, clinical variables and a rating scale on nursing care needs. The study revealed that majority of the patients required moderate nursing care and 26.7 percent of the patients required the maximum care. Only 13.33 percent of the patients required minimum care. There was a statistically significant association between level of care with the demographic variables such as age ($p>0.01$) and education ($p>0.05$). To conclude, Covid-19 patients with mild to moderate symptoms required moderate nursing care. They needed complete help in medication administration, and were partially dependent on alleviation of fear and anxiety and maintaining communication with all concerned.

Key words: Coronavirus, nursing care needs, nursing care

Since the declaration of pandemic Covid-19, nurses were on their toes. It is evident from the history that nurses had managed public health emergencies effectively (Rosa, 2020). Nurses worldwide adopted quickly to the sudden and emerging need for health care. The rapid surge of infection placed a huge demand for medical and nursing care in all health care settings. There was an acute shortage of nurses and all hospitals had recruited additional nurses to manage the existing situation. The duty of the nurses were to meet the basic needs of the patients and educate on preventive measures. In the process of caring, many had contracted infection and were in a position to render nursing care in addition to caring for themselves (Siregar et al, 2022).

In Covid-19, the need for basic and advanced nursing care and the overall nursing workload had increased dramatically. Lucchini et al (2020) asserted that in ICU the ideal nurse patient ratio would be 1:1.5. Asghari et al (2021) stated that nurses had mobilised their knowledge and skill to provide

needed care to the patients. However the nurses' response in care of patients with Covid-19 was not well documented and the scope of supportive care rendered by nurses had not been well understood. He highlighted a need to examine the nursing practices for Covid-19 positive patients. Rathnayake et al (2021) highlighted the resources, educational and informational need for nurses on treating patients with Covid-19.

Nurses are always in the process of improving nursing care practices integrating holistic care concepts and humanised care as much as possible in all situations (Fernandes et al, 2022).

In Tamilnadu, during the second wave, to manage the acute shortage of nurses, final year nursing students were involved in the care of Covid-19 patients. Nurses and nursing students were in a position to support the patients' physical, psychological and communicational needs. Hence this study was conceived to assess the nursing care needs of the patients with Covid-19 in order to document the extent of support rendered by nurses.

Objectives

The objectives of the study were to assess the nurs-

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ing care needs of Covid-19 patients, and associate the Nursing care needs with selected demographic variables of patients.

Materials and Methods

A quantitative research approach and descriptive research design was used. This study was conducted in a tertiary care multispecialty hospital located in Chennai. Data was collected by the final year nursing students posted at Covid wards; 60 patients admitted in Covid wards with mild to moderate symptoms as classified during admission were selected using non-probability purposive sampling technique. Both male and female patients aged 18 years and above were included. Patients who were critically ill and admitted in ICU were excluded. A structured tool was used for data collection which included items on demographic variables, clinical variables and a rating scale on nursing care needs. A total of 10 areas with 26 items were included to assess nursing care needs with a scale legend such as Independent (patients performed it on their own), Partially dependent (patients required some help from the nurses) and completely dependent (patients completely dependent on the nurses) which were scored as Zero, One and Two respectively. The overall minimum score is zero and the maximum 52. The total score was calculated, based on the percentage, patients were classified as requiring minimum nursing care (0-33%), moderate nursing care (34-66%) and maximum nursing care (67-100%). Permission from the Institutional Ethical Committee and informed consent from the patients was obtained. Confidentiality was maintained.

Results

Demographic variables: Demographic variables of the patients show that 23.3 percent of the samples were 61 years and above, 20 percent were 31 to 40 years and 41 to 50 years respectively; 18 percent of the samples were 51 to 60 years. Majority (60%) of the samples were male and 40 percent were female; 56.7 percent of the samples were Hindu and 26.7 percent were Christian. 18.3 percent of the samples were graduates and 25 percent had completed diploma/certificate education; 25 percent were self-employed and 23.3 percent of the samples were unemployed and on daily wages. Majority (75%) of the samples were married and 13.3 percent were either widow or widower. Majority (71.7%) of the samples were non-vegetarian; 40 percent of the samples were heads of the family and 30 percent of them were grandparents. 23.3 percent of the samples were dependent earning Rs. 10,001 to 20,000.

Clinical Variables: Majority (78.3%) of the samples had body pain and 75 percent of the samples had cough and cold. 68.3 percent of the samples

Table 1: Frequency and percentage distribution of the samples based on symptoms of Covid-19

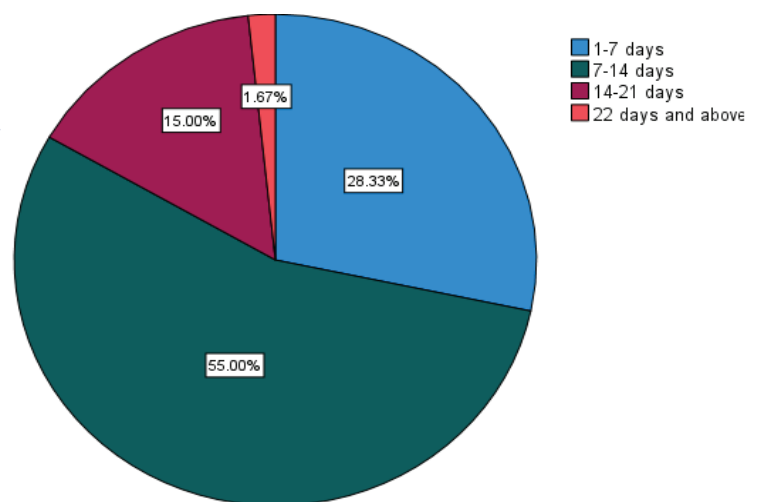
Symptoms	Frequency	Percentage
Fever	34	56.7
Sore throat	32	53.3
Headache	36	60.0
Cough/cold	45	75.0
Breathing difficulty	40	66.7
Loss of smell	29	48.3
Loss of taste	24	40.0
Tiredness	41	68.3
Body pain	47	78.3
Diarrhoea	13	21.7

had tiredness and 66.7 percent of the samples had breathing difficulty; 60 percent of the samples had headache and 56.7 percent of the samples had fever. 53.3 percent of them had sore throat and diarrhoea (21.7%) was the least reported symptom (Table 1).

Discussion

The study results revealed that the majority of the patients suffered from cough, cold and tiredness which was confirmed by Majumder & Minko (2021) who stated that the most common clinical symptoms were fever, fatigue, cough and breathing difficulty and all of them required supportive care. Wang et al (2020) found that the most common symptoms at onset of illness were fever (n=136, 98.6%), fatigue (n=96, 69.6%), dry cough (n=82, 59.4%), myalgia (n=48 34.8%), and dyspnoea (n=43, 31.2%).

In this study, 51.7 percent of the samples had diabetes mellitus, 36.7 percent had hypertension, 5 percent had asthma and 15 percent had cardiac problems as comorbidities. One sample had tuberculosis and one other suffered from cerebro-vas-



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Fig 1: Number of days of hospitalization.

Table 2: Frequency and percentage distribution of nursing care needs of Covid-19 patients

Sl. No.	Nursing care needs		Independent		Partially dependent		Completely dependent	
			F	%	F	%	F	%
1	Monitoring vital signs	Temperature	-	-	-	-	60	100
		Pulse	-	-	-	-	60	100
		Respiration	-	-	-	-	60	100
		Blood pressure	-	-	-	-	60	100
		O ₂ saturation	-	-	-	-	60	100
2	Personal hygiene needs	Brushing	24	40	20	33.3	16	26.7
		Combing	24	40	20	33.3	16	26.7
		Bathing	23	38.3	21	35	16	26.7
3	Nutrition needs	Drinking	20	33.3	29	48.3	11	18.3
		Eating	13	21.7	28	46.7	19	31.7
4	Elimination needs	Bladder	17	28.3	32	53.3	11	18.3
		Bowel	14	23.3	28	46.7	18	30
5	Medication	Oral medication	-	-	60	100	-	-
		IM/IV/SC	-	-	-	-	60	100
		Oxygen administration	-	-	-	-	60	100
6	Movement & exercise	Position	9	15	35	58.3	16	26.7
		Ambulation	17	28.3	26	43.3	17	28.3
7	Sleep	Comfort measures	8	13.3	41	68.3	11	18.3
		Waking	16	26.7	30	50	14	23.3
8	Alleviation of fear & anxiety (Psychological support)	Fear of recovery	3	5	36	60	21	35
		Fear of death	1	1.7	46	76.7	13	21.7
		Separation from family members	-	-	-	-	60	100
9	Communication need	With family members	60	100	-	-	-	-
		With other health team members	-	-	60	100	-	-
10	Treatment-related information	To patients	-	-	60	100	-	-
		To family members	-	-	-	-	60	100

cular accident. These findings are in line with the study conducted by Wang et al (2020) who found that 46.4 percent of the samples had one or more coexisting medical conditions.

The major aim of the study was to assess the nursing care needs of the patients. Zhang et al (2020) in their study stated the need to assess the basic needs of patients, and provide warm food and warm water according to their needs. Bruyneel et al (2021) confirmed the current study findings. They stated that the Nurses Activity Score had increased significantly by 20 percent for Covid group and the nursing activities were different when compared to other patients. Patients with Covid-19 required more time for monitoring, mobilisation, and hygiene care.

In this study, 60 percent of the patients required moderate care and 26.67 percent required maximum care. All patients were completely dependent on

nurses for monitoring vital parameters, medication administration including oxygen and the communication of treatment-related information to family members. Asghari et al (2021) in their study on nursing intervention classification stated that medication administration was documented in 100 percent of patients' charts. The nurses were involved in positioning, vital signs including respiratory monitoring, and other symptoms management including nausea and diarrhoea management.

Fear of recovery and death is the major issue faced by the nurses and nursing students which is aggravated by the separation from the family members, sensory deprivation, restriction of movement and prolonged hospitalisation. The findings of the present study are supported by Zhang et al (2020) who reiterated that nurses should

be responsible and kind-hearted to patients, treat patients as if they are the family members, or even assume the roles of their family members if necessary. Nurses should identify the negative emotions of patients, care for the depressed patients, comfort the emotional patients, and provide psychological support. Nurses need to take on the role of their family members for the patients lacking family support. All patients were isolated and separated from family members which posed a challenge for them to accommodate in the newer environment amidst increased limitations. They suffered from loneliness, sensory deprivation, fear of recovery and death and fear associated with the prognosis. Seeing the plight of other patients and continuous or prolonged oxygen therapy coupled with less interaction by nurses because of shortage and increased demand for care further added to the fear. The de-

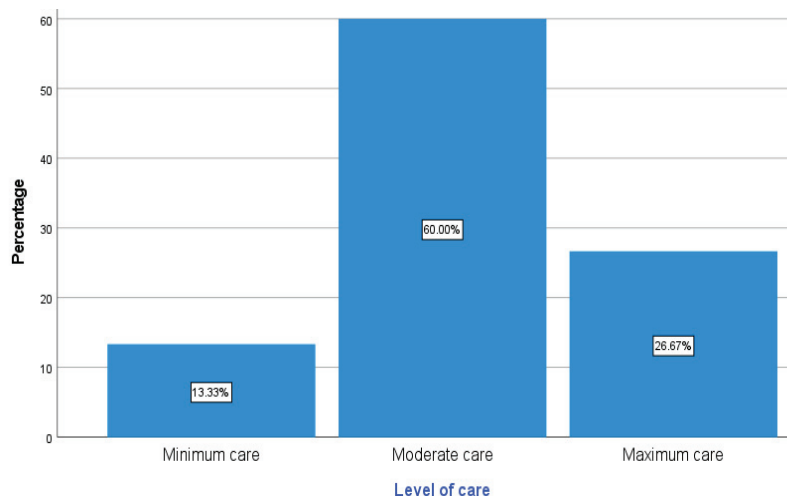


Fig 2: Level of nursing care required by Covid 19 patients.

pendency on health care for fulfilling their needs is an additional cause for concern.

This study found a statistically significant association between the nursing care required with the age of the patients at 0.01 level of significance and with education at 0.05 level of significance.

Nursing Implications

Nurses played a vital role as frontline warriors in the care of Covid patients in all settings. This study highlighted not only the patients' nursing care needs but also the revealed the scope of nursing practice.

This study highlighted the need to understand the importance of providing holistic care. Promotion of psychological wellbeing should be given equal importance. Nurses should understand the plight of patients and family members and be a bridge to both of them. Nurses should create a family like atmosphere, fulfill their basic needs on time in case of social isolation and provide adequate explanation on their prognosis to the patients and family members. Studies like this will help to assess the nurses' workload and in turn help in planning nursing manpower. Nurses also need to be protected from overworking. Similar studies can be conducted in larger population to validate the findings including nursing care needs of patients admitted in critical care units, for various age group.

Limitations: This study was conducted on limited number of patients admitted in one medical facility during pandemic. The data was collected by final year baccalaureate nursing students who were still learning research. The areas of nursing care included were only limited.

Conclusion

Covid-19 patients with mild to moderate symptoms required moderate nursing care. They needed complete help in medication administration, and were

partially dependent on alleviation of fear and anxiety and maintaining communication with all concerned. This study found a statistically significant association between the nursing care required with the age of the patients at 0.01 level and education at 0.05 level of significance.

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