

Empowering Nurses in Clinical Decision Making (CDM) and Enhancing Covid-19 Patient's Outcome Through Monitoring of Early Warning Score

John Minimole¹, Pandey Captain Sandhya Shankar², Himanshi³, Sebastian Susan⁴, Jandu Navjyoti⁵

¹Chief of Nursing, Fortis Escorts Heart Institute, New Delhi, India

²Corporate Chief of Nursing, MSc Nursing, Masters in Healthcare Management, Fortis Healthcare Limited, India

³Nurse Educator, Msc Nursing, Fortis Escorts Heart Institute, New Delhi, India

⁴Deputy Chief of Nursing, Fortis Escorts Heart Institute, New Delhi, India

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Abstract

A. Introduction: Today's nurses are having challenges, demanding their ability to the profession during COVID-19 times. Nursing education should concentrate on educating competent health care providers to handle complex health care technology with fundamental implications for the latest generation of patients. Clinical decision-making (CDM) is a process that nurses use on a daily basis when they make a judgment about the issues related to patient care and management of COVID-19. The process of decision-making becomes increasingly intricate when nurses become more experienced as care providers. Nurses play a crucial role in clinical judgment in any developing health care system. Health promotion, protection from diseases, providing benefits to the patients, and resources of health care systems are allocated efficiently through the nurse's judgment and decision-making potential.

B. Methods: A quantitative approach, a descriptive study was taken to assess the knowledge and level of practice of staff nurses working in the COVID Units. A total of 130 staff nurses have participated in the study.

C. Results: There is a weak positive relationship ($r=0.347$), i.e., $p=0.01(p<0.05)$ existing between knowledge and practice regarding monitoring of early warning signs.

D. Conclusion: Clinical decision-making is an abstract skill that can be developed by using different strategies in different specialties and different situations. Since situational factors and time constraints are evident in practice, findings were supportive of clinical decision-making (CDM) skills. This study has provided a practical approach to train, teach, guide, and follow up regarding critical aspects of the clinical decision making for the patient's care through monitoring of early warning score and appropriate action can be taken immediately. CDM is

necessary for providing quality patient care and favoring patient satisfaction.

Keywords: Clinical decision making (CDM), Early Warning Score, Staff Nurses, COVID-19

I. INTRODUCTION

An Early Warning Score (EWS) is a quick guide that is used by medical services to quickly determine the degree of illness of a patient. It is based on the vital signs (respiratory rate, oxygen saturation, temperature, blood pressure, pulse/heart rate, VPUC response). The purpose of developing this tool is to determine the degree of illness, to increase the patient's safety, to detect if any deviation, and to meet the requirements of many patients in various clinical situations.

Clinical decision-making (CDM) is a process that nurses use on a daily basis when they make a judgment about the issues related to patient care and management. The process of decision-making becomes increasingly intricate when nurses become more experienced as care providers. Nurses play a crucial role in clinical judgment in any developing health care system. Health promotion, protection from diseases, providing benefits to the patients, and resources of health care systems are allocated efficiently through the nurse's judgment and decision-making potential.

Clinical decision making is a complex activity that requires practitioners

- To be knowledgeable in relevant aspects of nursing,
- To have access to reliable sources of information and appropriate patient care networks and
- To work in a supportive environment" (O'Neill et al. 2005).



A. Statement of the Problem

“A Study to Assess the Knowledge and Level of Practice in Clinical Decision Making (CDM) abilities and Enhancing COVID-19 Patient’s Outcome Through Monitoring of Early Warning Score among staff nurses.”

B. Research Gaps Identified

- Strategies can be developed to promote decision-making using theory and clinical opportunities
- Educators have to become role models by developing competency in decision-making
- The complex legal, professional, and educational problems confronting nursing today, emphasize the need for effective decision-making skills at all levels of practice

C. Aim: The purpose of this quantitative study is to explore the knowledge and practice in Clinical decision-making through monitoring the early warning signs of COVID-19 patients among staff nurses. Results of this study could be the baseline data for further studies, and it acts as basic information to train the Staff Nurses in lacking areas to make clinical decisions.

II. OBJECTIVES OF THE STUDY

- 1) To assess the Knowledge and Level of Practice in Clinical Decision Making through Monitoring of Early Warning Score
- 2) To determine the Relationship Between Knowledge and Practice in Clinical Decision Making through Monitoring of Early Warning Score

III. HYPOTHESIS

The hypothesis was tested at 0.05 level* of significance

H01: There is no Significant Relationship Between Knowledge and Practice in Clinical Decision Making through Monitoring of Early Warning Score

IV. METHODOLOGY

A quantitative approach, a Descriptive study, has been taken to assess the knowledge and level of practice of Staff Nurses in Clinical Decision Making abilities. The setting for the study was a tertiary care center, and the hospital serves a large number of COVID -19 positive patients. The population consisted of all nurses working in the selected tertiary care center. A total of 130 (After power analysis) staff nurses participated in the study. A purposive sampling technique was used to select the hospital setting. All the nurses working in the COVID ICU and wards were included. Data collection procedures were started in the month of April, and data were collected for 4 months to check the decision-making abilities of staff nurses while taking care of COVID-19 confirmed positive cases.

A. Reliability and Content Validity Index: Constructed tool with Objectives and Blueprint sent to the 5 Clinical experts. The tool was found reliable by using the split-half method, and reliability is 0.78 and CVI’s is 1

B. Data collection tool: It had 3 parts: Demographic data, Knowledge questionnaires, and practice- observation checklist, data collected through Microsoft Google Form App

C. Actual clinical decision-making ability is measured using the observation- checklist. The scores were added up, and the sum total was interpreted as following, <3 indicate the poor level of decision-making skill, 4-6 indicate satisfactorily, 7-10 indicate a good level of actual clinical decision-making ability.

V. RESULT OF THE FINDINGS

Section A: Description of Sample Characteristics

Demographic characteristics revealed that out of 130 staff nurses, half of the nurses, 50% belonged from 21-25 years of age, 30% were between 26-30 years of age, and only 20% were from more than 31 years of age. The majority, 85%, were females in the study. 50% were qualified in BSC Nursing, and 50% were qualified in GNM. 41% of the staff were having more than 3 years of experience whereas 16% were having experience between 2-3 years, 9% had 1-2 years, and 34% were having 6months – 1year of experience.

Section B: Assessment of Knowledge and Practice Regarding Monitoring of Early Warning Score

TABLE 1

Frequency and percentage of the level of knowledge regarding monitoring of early warning score

Level of Knowledge	F	%
Inadequate Knowledge (0-5)	39	31
Moderate Knowledge (6-10)	43	32
Adequate Knowledge (11-15)	48	37

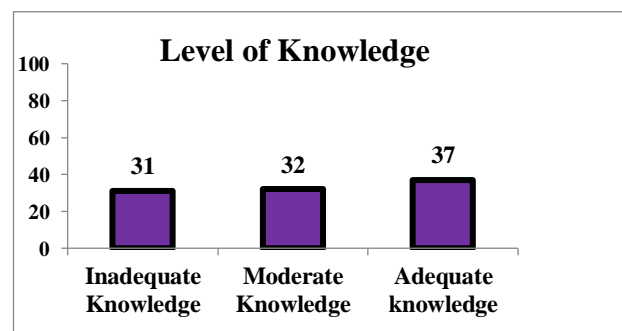


Fig.1. Bar chart showing the level of knowledge regarding monitoring of early warning score

Table 1. shows that out of 130 staff nurses, 37% of nurses had adequate knowledge, 32% had moderate knowledge, and 31% were having inadequate knowledge regarding monitoring of early warning scores.

TABLE 2

Frequency and percentage of the level of practice regarding monitoring of early warning score

Level of Practice	F	%
Moderate Practice (4-6)	28	23
Practice Well (7-10)	102	77

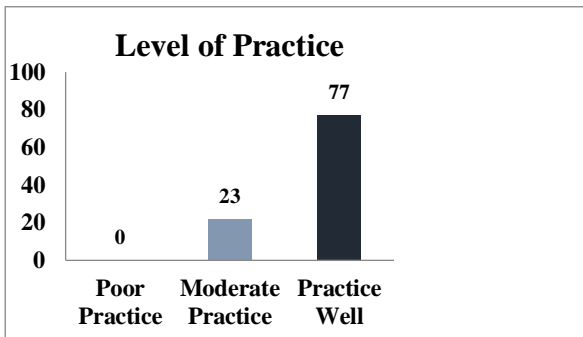


Fig.2. Bar chart showing level of Practice regarding monitoring of early warning score

Section C: Relationship of Knowledge and Practice Regarding Monitoring of Early Warning Score

TABLE 3

Mean, Standard Deviation and Correlation between Knowledge and Practice

S.NO.	Variable	Mean	Standard Deviation (SD)	Coefficient and correlation (r-value)
	Knowledge	8.58	4.04	r = 0.347 (p = 0.01)
	Practice	7.9	1.75	

Table 3. depicted that there is a weak positive relationship ($r = 0.347$), i.e., $p = 0.01$ ($p < 0.05$) existing between knowledge and practice regarding monitoring of early warning signs. Hence the null hypothesis (**H01**) is not accepted & inferred that there is a significant relationship between knowledge and practice.

VI. CONCLUSION

Clinical decision-making is an abstract skill that can be developed by using different strategies in different specialties and different situations. Since situational factors

and time constraints are evident in practice, findings were supportive of clinical decision-making (CDM) skills. CDM is necessary for providing quality patient care and favoring patient satisfaction. Nurses' play a very important role in the delivery of health care services. Clinical decision-making is a crucial activity a nurse should possess in providing the best possible care. The present study has evaluated the knowledge and practice on clinical decision making through monitoring of early warning signs of COVID-19 positive patients among nurses in a tertiary health care setting.

This study has provided a practical approach to train, teach, guide, and follow up regarding critical aspects of the clinical decision making for the patient's care through monitoring of early warning score and appropriate action can be taken immediately. CDM is necessary for providing quality patient care and favoring patient satisfaction.

Conflicts of Interests:

There was no conflict of interest in this article.

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Ethical approval & consent to participant:

Ethical approval was taken prior from the research committee, and anonymity has been maintained.

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