



# A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE REGARDING MEWS SCORE AMONG 4TH YEAR NURSING STUDENTS OF SELECTED NURSING COLLEGES OF DISTRICT FATEHGARH SAHIB, PUNJAB

<sup>1</sup>Geetanjali, <sup>2</sup>Manu Nagra

<sup>1</sup>Associate Professor, <sup>2</sup>Associate Professor Department of Nursing, School of Health Sciences, RIMT University, Mandi Gobindgarh, Punjab, India

**Abstract:** The Modified Early Warning Score MEWS uses physiological parameters to identify patients that are at increased risk of catastrophic deterioration, resulting in ICU admission or death. The purpose of the MEWS is to facilitate prompt communication between nursing and medical staff when deterioration in a ward patient's condition first becomes apparent on the observational chart. Aim of the study is to assess the knowledge regarding MEWS score among 4th year nursing students. A quantitative research approach and descriptive one-shot research design was used in this study. This study was conducted in school of nursing Desh Baghat University, Amlloh, Punjab on B.Sc. nursing 4th year students with the sample size of 60 by using purposive sampling technique. As per the findings of the study 68.3% had average knowledge, 12.0% had good knowledge and 11.7% had poor knowledge regarding MEWS score. There was no significant association of knowledge with age, gender, religion, source of knowledge at p-value <0.05.

## **Keywords:**

Modified Early Warning score, MEWS, ICU, surgical in-patients.

## **Introduction:**

Early Warning Sign (EWS) is a tool made up of vital signs chart and scoring to detect any changes in patient so that immediate and appropriate care can be further determined and provided. Early detection of signs and symptoms of clinical deterioration in patients in the treatment room is one of the ways to prevent the occurrence of code blue. In addition, this also one way to improve the patient's prognosis as well as to detect early deterioration of the patient's clinical condition. The Early Warning Score (EWS) system is a system to aid health provider to overcome patient's problems in early condition by using seven parameters to determine the patient's clinical activation response.

The Modified Early Warning Score (MEWS) is a simple bedside scoring index that evaluates the patient's physiological state based on six vital parameters; heart rate, blood pressure, respiratory rate, core body temperature, mental status, and urine output. A MEWS tool is often coupled with an algorithm that outlines appropriate nursing action based on the score. For example, a MEWS protocol may indicate that the nurse needs to reassess the patient, monitor vital signs more frequently, or activate the RRS. The urgency of the response depends on the score and predetermined call-out algorithm.

**Need of the study:**

MEWS helps RNs in early recognition of changes in vital signs, enabling the RNs to take action by escalating the situation to physicians before Code Blue. Additionally, based on the MEWS score, nurses will monitor patients more frequently. This DNP project improved nurses' knowledge in the early identification of patient decline by growing their competency in using the MEWS.

The MEWS staff education project's purpose was to promote nurse's knowledge and improve their competencies in identifying the subtle signs of patient deterioration and preventing adverse patient outcomes. A delay or failure in recognizing patient deterioration adversely affects patient outcomes and increases mortality and morbidity rates. Bridging the gap of organizational best practices was possible by providing staff education about MEWS.

**STATEMENT OF THE PROBLEM:**

A descriptive study to assess the knowledge regarding MEWS score among 4th year nursing students of selected nursing colleges of district Fatehgarh sahib Punjab.

**Aim of the Study:**

The aim of the study is to assess the knowledge regarding MEWS score among 4th year nursing students of selected nursing colleges of district Fatehgarh sahib Punjab.

**Objectives:**

1. To assess knowledge regarding MEWS score among 4th year nursing students of selected nursing colleges of district Fatehgarh sahib Punjab.
2. To find out association of knowledge score with selected socio-demographic variables.

**Assumption:**

It assumed that 4th year nursing students will have average knowledge regarding MEWS score.

**Research Approach**

A quantitative research approach was used in this study

**Research Design**

Descriptive research design was considered appropriate for this study.

**Research setting**

The study was conducted in school of Nursing, Desh bhagat University, Amloh Punjab. The reason for selecting college was availability of number of samples and expected co-operation from the principal of school of Nursing for permission to conduct the research study.

**Target population**

The target population for the study is B.Sc. Nursing 4th year students of Desh bhagat University, Amloh, Punjab.

**Sample and Sampling Technique:**

The sample consists of 60 students of B.Sc. Nursing 4th year of Desh bhagat University, Amloh Punjab selected by purposive sampling.

**Description of tool:**

It consists of the following sections:

**Section A: Socio-Demographic variables**

There were 4 extraneous variables in the study, such as age (in years), gender, Religion and sources of knowledge.

**Section B: Structured questionnaire to assess the knowledge regarding MEWS score**

A self-structured knowledge questionnaire was used to collect the data

**Plan of Data Analysis:**

The data was collected, organized, tabulated and analyzed by descriptive statistics such as mean, median, frequency, percentage, standard deviation and inferential statistics such as chi-square and Karl Pearson Correlation Coefficient on the basis of the objectives of the study was used for findings.

Criterion Measure:

Level of Knowledge	Knowledge Score
Poor	0-6
Average	7-13
Good	14-20

**Result:**

Table 1: Frequency and percentage distribution of selected socio-demographic variables among B.Sc. 4<sup>th</sup> year nursing students

N=60

Sr. No.	Socio-demographic variables	Frequency (f)	Percentage (%)
1.	<b>Age (in years)</b>		
	19-21	24	40.0
	22-23	36	60.0
2.	<b>Gender</b>		
	Male	25	41.7
	Female	35	58.3
3.	<b>Religion</b>		
	Muslim	32	53.3
	Sikh	15	25.0
	Hindu	10	16.7
	Christian	3	5.0
4.	<b>Source of Knowledge</b>		
	Books	40	66.7
	Clinical area	17	28.3
	Journals	0	0.0
	Seminars, Webinars and Teaching	3	5.0

**Table 1:** The result showed that 60% of the B.Sc. 4<sup>th</sup> year nursing students were in the age group of 22- 23 years and 40% were in the age group of 19-21 years. Majority of the students i.e., 58.3% were the female and rest of 41.7% were the male. 53.3% i.e., were belongs to Muslim religion, 25% were the Sikh, 16.7% were Hindu and least 5% belongs to Christian religion. Maximum students i.e. 66.7% had got the knowledge from books, 28.3% got knowledge from clinical area and rest of students got knowledge from seminars, webinars and teaching.

**Table 2:** Findings related to the knowledge regarding MEWS score among B.Sc. 4th year nursing students. N=60

S. No.	Criteria measure of Knowledge Score		
	Knowledge	Frequency (f)	Percentage (%)
1.	Good (14-20)	12	12.0
2.	Average (7-13)	41	68.3
3.	Poor (0-6)	7	11.7

**Table 2:** depicts that level of knowledge among B.Sc. 4<sup>th</sup> year nursing students. The majority of students i.e., 68.3% had average knowledge, 12.0% had good knowledge and 11.7% had poor knowledge regarding MEWS score.

**Table 4: Association between knowledge with selected socio-demographic variables**

N=60

S. No.	Socio-demographic variables	Level of Knowledge			$\chi^2$ , df, p-value
		Good (21-30)	Average (11-20)	Poor (0-10)	
1.	<b>Age (in years)</b>				
	19-21	6	14	4	1.943
	22-23	6	27	3	2 0.379 <sup>NS</sup>
2.	<b>Gender</b>				
	Male	3	18	24	2.146
	Female	9	23	3	2 0.342 <sup>NS</sup>
3.	<b>Religion</b>				
	Muslim	4	21	7	8.220
	Sikh	4	11	0	6
	Hindu	3	7	0	0.222 <sup>NS</sup>
	Christian	1	2	0	
4.	<b>Source of Knowledge</b>				
	Books	7	26	7	5.496
	Clinical area	5	12	0	4
	Journals	0	0	0	0.240 <sup>NS</sup>
	Seminar, Webinar and Teaching	0	3	0	

NS-Not Significant

\*- Significant at p&lt;0.05

**Table 4:** depicts that there was no significant association of knowledge with age, gender, religion, source of knowledge at p-value<0.05.

### Discussion:

**Objective 1: To assess knowledge regarding MEWS score among B.Sc. 4th year nursing students of selected nursing colleges of district Fatehgarh sahib Punjab.**

Present study showed that level of knowledge among B.Sc. 4<sup>th</sup> year nursing students. The majority of students i.e., 68.3% had average knowledge, 12.0% had good knowledge and 11.7% had poor knowledge regarding MEWS score. Similar study conducted by **Anati Liyana Alias, Salizar Mohamed Ludin (2021)** showed that majority of respondents scored average in knowledge questions with grade F (n=106, 98.3%). Based on the result, there are more participants (n=58, 53.7%) achieving good attitudes while respondents with poor attitudes were (n=50, 46.3%). Moreover, 59 respondents (54.6%) have higher practice level than mean score, indicating good MEWS practice. The study revealed that despite having average knowledge on MEWS. Study was conducted by **Janwar Olang, Marisa Junianti Manik, et.al. (2018)** revealed that most nurses (81.25%) were at the level of adequate in regard with their knowledge of MEWS. Further study is recommended to explore nurse's compliance on MEWS implementation in hospital and how it is associated with patients'

deterioration conditions. **Mohamed Naeem Badr, Nahla Shaaban Khalil, Ahmed Mohamed Mukhtar (2021)**, conducted a study revealed that all nurses (100 %) (34) had an unsatisfactory knowledge level pre-educational program. While nurses' knowledge level post-educational program showed, most of them (97.1 %) had a satisfactory knowledge level. Moreover, nearly half of the nurses (50.2 %) answered knowledge questions incorrectly pre-educational program, while post-educational program, the majority of them (91.6%) answered knowledge questions correctly. After implementing an educational program regarding National Early Warning Score, The emergency care nurses' knowledge was markedly improved.

### Conclusion:

As per findings of the present study, 68.3% had average knowledge and 11.7% had poor knowledge. Based on obtained results, it was important to give proper knowledge to B.Sc. 4<sup>th</sup> year nursing students. Students must know about MEWS as it is helpful in detecting symptoms.

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