

# "A Study to Assess the Knowledge Regarding Modified Early Warning Score Among Final Year Nursing Students in Selected Colleges of Pune City".

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## Abstract

**Introduction:** The Modified Early Warning Score (MEWS) is a tool used to assess the severity of illness in patients. Early warning scores and systems are used in clinical practice by hospital rapid response programs as standardized means for early identification of patients at high risk of deterioration. Several Early Warning Scores (EWSs) with different designs have been developed to diagnose early signs of deterioration in a patient's condition and initiate further medical care and possible ICU admission. Since a critical state usually follows specific deteriorations in the patient's physiological signs, monitoring these signs could help the physicians predict the patient outcome. The Modified Early Warning Score (MEWS) has been proposed to warn healthcare providers of potentially serious adverse events.

**Aim of the study:** "A study to assess the knowledge regarding modified early warning score among final year nursing students in selected colleges of Pune city".

**Material and method:** The research design adopted for the study was non-experimental research design. Total 200 samples were selected for data collection. Non-probability purposive sampling technique was used. Self-structured questionnaire were prepared based on 25 questions related to MEWS.

**Result:** In the demographic variables students were asked about their gender, age, qualification and previews knowledge regarding MEWS. Level of knowledge regarding modified early warning score among the final year nursing students 51% were having average knowledge, 37% were having good knowledge, 12% were having poor knowledge.

**Conclusion:** More emphasis should be given to increase knowledge among final year students related to modified early warning score.

**Key words:** Assess, Knowledge, Modified Early Warning Score, Final year nursing students

## Introduction

The Modified Early Warning Score (MEWS) is a tool used to assess the severity of illness in patients. Early warning scores and systems are used in clinical practice by hospital rapid response programs as standardized means for early identification of patients at high risk of deterioration. The Modified Early Warning Score is one such scoring system, validated in adult medical-surgical patients, to identify risk of clinical deterioration and mortality when the is greater than or equal to 5. It comprises five physiologic variables: systolic blood pressure (SBP), HR RR, temperature, and mental status.

The MEWS is a clinical tool used to identify patients who are deteriorating or at risk of deterioration in hospital settings. 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 observation. The MEWS is recorded on the observation chart every time a set of observations is made for all patients. Believe that the MEWS should be used routinely on all in-patients. This approach should remove the element of subjectivity in selecting patients and for the first time has allowed us to calculate the sensitivity and specificity of the MEWS for its purpose.

Clinical judgment must be used with the MEWS at all times. Normal = MEWS 0 to 1: No additional action steps/interventions required by the nurse. LOW = MEWS 2 to 3: Nurse reviews patient's condition and discusses findings with provider during rounds. MEDIUM = MEWS 4 to 6: Nurse reviews patient's condition with facilitator and considers discussing findings with provider during rounds versus more immediate provider notification. HIGH = MEWS 7 to 8: Nurse reviews patient's condition with facilitator and/or nursing colleagues.

### **Need of Study**

The study was carried out by the researcher to reduce the mortality rate in the critical settings. As the samples were final year Nursing students so they will get the knowledge regarding MEWS to overcome this problem. As MEWS has become most important concern area to study. Every Registered nurse should have knowledge regarding MEWS. EWSs, also referred to as track and trigger systems, were developed to identify clinically unwell hospitalized patients who may require additional support beyond standard care. An EWS consists of an input and an output. The input includes the identification of a deteriorating patient who requires a higher level of care and the activation of a response. The output is the response, which may include increased monitoring, review by a rapid response team (RRT), or transfer to the intensive care unit (ICU). These scores were developed on the premise that severe clinical deterioration in an inpatient setting is usually preceded by abnormalities in vital signs. By tracking multiple physiologic parameters, EWS aims to identify subtle changes in patients' clinical status before evident clinical deterioration.

Mihaelav Zegrean et al. conducted a study on Early recognition of patient deterioration, the aims of this study were to improve nursing students' ability to recognize, communicate and act upon early warning signs of patient deterioration. Results shown that nursing students able improve in identifying patient deterioration when having the opportunity to frequently implement a simple tool such as the VIEWS. Implementing the VIEWS action algorithm seemed to be more challenging for the students. Majority of students find difficult to recognize patient health status based on physiological presentation of patient.

### **Aim of the Study**

“A study to assess the knowledge regarding modified early warning score among final year nursing students in selected colleges of Pune city”.

### **Research Methodology**

In this study, the objective was to assess Knowledge of final year Nursing students about modified early warning score to associate the knowledge findings with selected demographic variables. Researcher adopted quantitative approach with descriptive research design. The study carried out on 200 samples with non-probability convenient sampling technique. Primary data was collected using demographic profile and structured questionnaire. Reliability done on 20 sample and pilot study done on 20 samples. Reliability done with test retest method and result was 0.7 also study was feasible to conduct. Data analysis was done mainly using descriptive statistics. Prior permission was taken by the samples for research study.

### **Result**

#### **Section-I Demographic variables**

Majority 50% were from 23 to 24 year, 26% were from 25 years and above, 24% were from 21 to 22 year of age group. Majority 52% were male & 48% were female. According to qualification Majority were having 100%

Bsc. Nursing. Majority of 64.5% were not having previous knowledge and 35.5% were having knowledge About MEWS.

### Section-II Finding Related to level of knowledge regarding modified early warning score among the final year nursing students in selected colleges of Pune city.

N=200

Level Of Knowledge	f	%	Mean	SD
Poor ( 0 - 7 )	74	37	9.06	3.35
Average ( 8-14 )	102	51		
Good ( 15-20 )	24	12		

### Section III: Finding related to association between knowledge regarding modified early warning score among the final year nursing students in selected colleges of Pune city.

The association between selected demographic variables & knowledge regarding modified early warning score among the final year nursing students in selected colleges of Pune city. Demographic variables are Age, gender, Qualification& knowledge About MEWS are not associated with a significant level of 0.05.

### Discussion

Findings related to the level of knowledge regarding modified early warning score among the final year nursing students in selected colleges of Pune city. 51% were having average knowledge , 37% were having poor knowledge, 12% were having good knowledge. Here it seems that knowledge regarding MEWS to final year Nursing students should be provided through means of available resources. The association between selected demographic variables & knowledge regarding modified early warning score among the final year nursing students in selected colleges of Pune city. Demographic variables are Age, gender, Qualification& knowledge About MEWS are not associated with a significant level of 0.05.

The study can be discussed with a similar by Geetanjali and Manu Nagra (2024) conducted 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 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, Amlon, 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.

### Conclusion

Gives awareness among the nurses in identifying the problems and complications at an early stage. Developed nursing module will help in planning nursing interventions at an early stage.. Nurse administrators can plan and organize in service education programs to the nurses based on the study findings. Integration of the theory and practice is a vital need and it is important in nursing education.

This study will implicate among learners to develop observational skills and do systematic assessments which will help them detect the problems and motivate them to render care to the patient at an early stage. It also promotes curiosity among learners to participate with multi health team members to provide collaborative care. Utilization of findings and dissemination of knowledge in nursing practice will help to identify the complications at an early stage. This study directs the nursing personnel to broaden their horizons, knowledge, and skills to elicit problems and to conduct many more research to raise their power to implement prompt

activities at the given setup. Utilization of findings and dissemination of knowledge which helps the nurse educator to develop ongoing assessment, care and technology that made in the health care system. Thorough research, dissemination of knowledge will give a vision for growing autonomy in nursing discipline

In this study, 200 sample was taken and data was collected through structured demographic questionnaires regarding modified early warning score among the final year nursing students in selected colleges of Pune city. The result revealed that 51% were having average knowledge, 37% were having poor knowledge, 12% were having good knowledge. The overall mean is 9.06 with SD+-3.35. More emphasis should be given to increase knowledge among final year students of selected colleges.

### Conflict of Interest

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or material discussed in this paper.

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