# "A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE OF STAFF NURSES REARDING CODE BLUE IN SELECTED HOSPITAL IN THE CITY IN A VIEW TO DEVELOP AN INFORMATION BOOKLET."

**PROF.KALAM NARREN**

*Asst. Professor, Department of Medical Surgical Nursing, Dr.VithalraoVikhe Patil Foundation's College of Nursing, Ahmednagar,*

*Corresponding Author Email:pallavi.mangrule22@gmail.com*

**Abstract:**

Medical emergencies are commonly encountered in the hospital settings. The main purpose of these emergency codes is to provide a emergency message to the specialized and trained hospital staff during emergency situations without creating panic in and around the hospital.A descriptive qualitative approach with survey design was used for this study. 50 staff nurses working in the hospital were selected using Purposive sampling technique. Duration of the study was 30 days. A structured questionnaire was used to assess the knowledge level. Descriptive and inferential statistics were used to analyse the data. This study showed that the staff nurses had poor knowledge about Code blue. The significant association was found between the Experience, Area of work, BLS course, Delivery of CPR and Knowledge score of staff nurses. So it is concluded that there is a need to train nurses about the hospital emergency codes and their implementation. Based on the findings of the study a detailed information booklet was prepared and distributed among staff nurses in the hospital.

**Keywords:** Code blue, knowledge, staff nurses, information booklet

# INTRODUCTION

Medical emergencies are commonly encountered in the hospital settings. “Emergency medical codes” are now used in many high-tech health-care establishments during these emergency situations; the purpose of thesecodes is to provide aemergency message to the specialized and trained hospital staff during emergency situations without creating panic in and around the hospital.(1)Numerous guidelines for unifying the codes internationally exist. “Code blue” (CB) is a popular hospital emergency code, which is used by hospitals to alert their emergency response team of any cardio respiratory arrest.(2) The term was first used in the Bethany Medical Center in the State of Kansas in the early 1990s.The aim of CB is to confirm that trained resuscitators are dispatched to the victim within the shortest possible time, without disturbing the traditional functioning of the remainder of the hospital Most victims of cardiac arrest tend to survive if the intervention is early, in terms of emergency procedure (CPR), defibrillation, and advance care.(3)The incidence of in-hospital cardio-respiratory arrest has been estimated to be 1–5 events per 1000 annual hospital admissions,but survival to hospital discharge rate could be a mere 0.42%. This shows the effect of diverse factors withinthe ultimate outcome of resuscitation.(4)

Recognition and Activation of Emergency Response:Pulse detection alone is commonly unreliable, even when performed by trained Rescuer, and it's going to require additional times. Consequently, rescuers should start CPR immediately if the adult victim is unresponsiveor not Breathing normally.(5)

Chest compressions:The prompt initiation of effective chest compressions may be a fundamental aspect of resuscitation. CPR improves the victim’s chance of Survival by providing heart and brain circulation.Rescuer should be a specialised in delivering top quality CPR. Providing chest compression of adequate rate (atleast100/min), Providing chest compression of adequate depth Adults:a compressions depth of at least 2 inches (5cm)Infant and kids:a depth of at least one third the anterior –posterior (AP) diameter of chest or about 1 ½ inches (4cm) in infants and About 2 inches in children.

Airway and Ventilations:Opening the airway (with a head tilt chin lift or jaw thrust) followed byRescue breaths can improve oxygenation and ventilations. (6)

Defibrillation: The victim’s chance of survival decreases with an increasing interval between the arrest and defibrillation.Thus, early defibrillation remains the Cornerstone for arrhythmia and pulseless ventricular tachycardia.Hospital strategies should aggressively work to scale back the interval between Arrest and defibrillation.(7)

## NEED FOR THE STUDY

Code blue refers to medical situation during which a patient suffers cardiac or respiratory arrest and requires immediate CPR (CPR). Some systems are developed to support these kindsof situations.Code blue could be a popular hospital emergency code which is employed by hospital to alert their emergency response team of any cardiac arrest. (8)

Critical care Nurses must assessand take care of patients with heart problems that aim Severity from arrhythmias to heart transplant. Nurses must be ready to immediately assist in treating or initially diagnose a sudden life-threatening Emergency. Code blue team monitor patient for any signs of a change in Condition, administer medication help with basic care need and work with the cardiologist to develop a thought of action for patient care. (9)

Critical care Nurses must acquire specialized skills including ECG Monitoring, Defibrillation, Emergency medication, CPR Techniques. Code blue team are liable for identifying emergency situations and to initiate methods for treating emergency situation. Each nurse should be responsive to Emergency situation,medication, methods of CPR, rate, depth of compressions, ventilation and defibrillation. Hence the investigator planned to conduct a study to assess the knowledge of nursing staff regardingcode blue in a view to develop an information booklet. (10)

## METHODOLOGY

A descriptive qualitative approach with survey design was used for this study.50 staff nurses working in the hospital were selected using Purposive sampling technique. Duration of the study was 30 days.A structured questionnaire was used to assess the knowledge level. Descriptive and inferential statistics were used to analyse the data.

## RESULTS AND DISCUSSION

The purpose of analysis is to reduce the data to an intelligible and interpretable form so that the relation of research of research problem can be studied. Statistical analysis deals with analysis and interpretation of the data collected from 50 staff nurses between the age group of 21 to 35 years.The data was analysed according to the objectives of study which were:

## PRIMARY OBJECTIVE

1. To assess the knowledge of nurses regarding code blue in selected hospital in the city.
2. To find out the association of knowledge of code blue score with selected demographic variables among staff nurses working in selected hospital of in the city.

## SECONDARY OBJECTIVE

1. To develop information booklet for nurses regarding code blue.

## ORGANIZATION OF THE FINDINGS

The data was analyzed and presented in the following section:

1. Section 1: Description of samples according to demographic data.
2. Section 2: Description of data to assess the knowledge of staff nurses regarding code blue.

## SECTION I: DISTRIBUTION OF DATA ACCORDING TO AGE GROUP

**Table 1: Frequency and percentage distribution of staff according to Age groups n=50**

| Sr. No. | Variable | Frequency | Percentage |
|---|---|---|---|
| 1 | **Age Group** | | |
| | 21 to 25 years | 28 | 56% |
| | 26 to 30 years | 18 | 36% |
| | 31 to 35 years | 4 | 8% |
| 2 | **Gender** | | |
| | Female | 30 | 60% |
| | Male | 20 | 40% |
| 3 | **Education** | | |
| | GNM | 24 | 48% |
| | B.BSc | 17 | 34% |
| | P.B.BSc | 9 | 18% |
| 4 | **Years of experience** | | |
| | 0 to 1 year | 17 | 34% |
| | 2 to 5 years | 26 | 52% |
| | 5 to 6 years | 7 | 14% |
| | Above 10 years | 0 | 0% |
| 5 | **Area of work** | | |
| | ICU | 20 | 40% |
| | Non ICU | 30 | 60% |
| 6 | **BLS course** | | |
| | Yes | 8 | 16% |
| | No | 42 | 84% |
| 7 | **Delivered CPR** | | |
| | Yes | 21 | 42% |

| | | | |
|---|---|---|---|
| | No | 29 | 58% |

## SECTION II: FREQUENCY AND PERCENTAGE DISTRIBUTION OF STAFF ACCORDING TO KNOWLEDGE LEVEL

**n=50**

**Table 1: Frequency and percentage distribution of staff according to knowledge level**

| Knowledge | Number | Percentage |
|---|---|---|
| Poor (0-10) | 21 | 42% |
| Average (11-20) | 19 | 38% |
| Good (21-30) | 10 | 20% |
| Total | 50 | 100% |

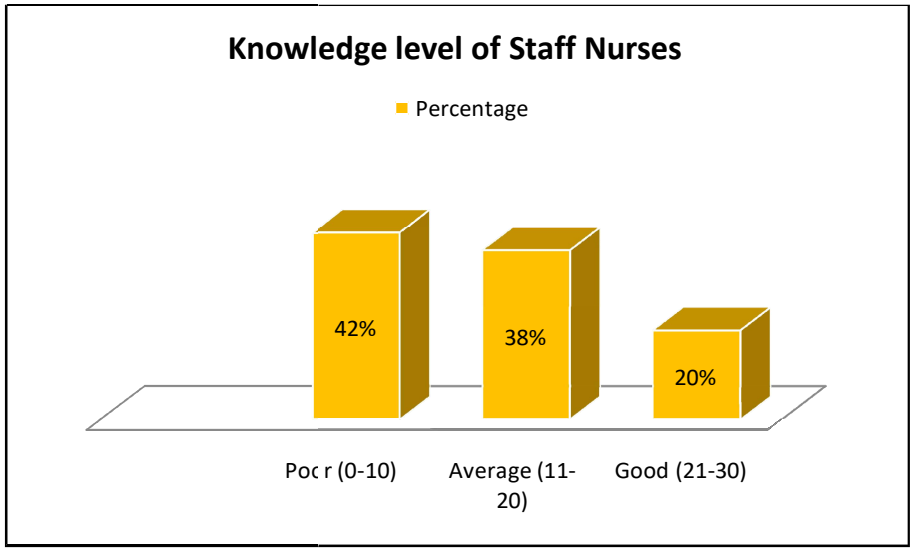


**Fig No.1: Diagram showing percentage wise distribution of knowledge level**

## SECTION III: ASSOCIATIONS

| Sr | Variable | $X^2$ | Significance |
|---|---|---|---|
| 1 | Age Group | 3.56 | Not Significant |
| 2 | Gender | 0.066 | Not Significant |
| 3 | Education | 5.856 | Not Significant |
| 4 | Experience | 11.50 | **Significant** |
| 5 | Area of work | 6.77 | **Significant** |
| 6 | BLS course | 27.32 | **Significant** |
| 7 | Delivered CPR | 11.29 | **Significant** |

**Associationbetween the Area of work and knowledge of code blue**

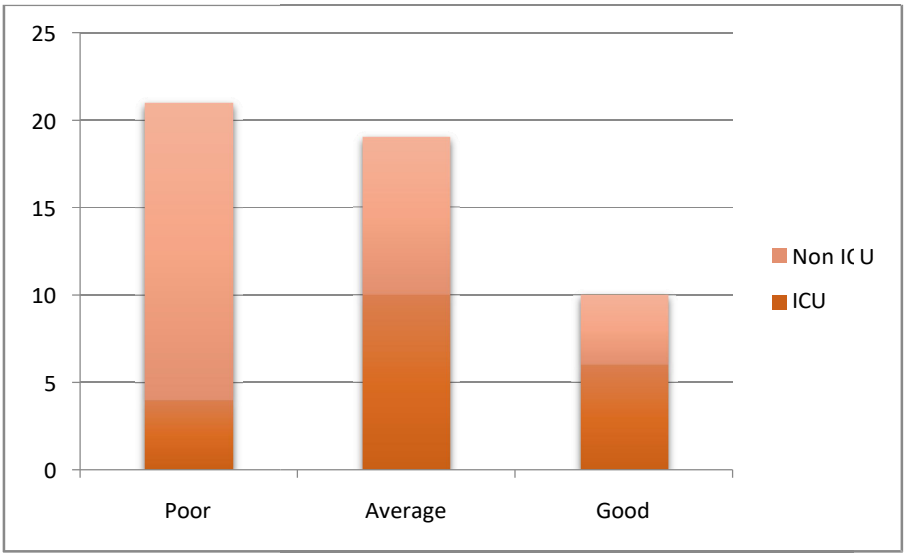


**Fig No 2: Diagram showing percentage wise distribution of knowledge level according to Area of work**

**A Significant association was seen between the Area of work and knowledge of code blue (p = 0.034). Out of 20 participants with experience in ICU, 4 had poor knowledge (20%). 10 participants had average knowledge (50%)- majority, and 6 had good knowledge (30%).**Out of total 30 participants with No ICU experience, 17 had poor knowledge (56.66%)- majority, 9 had average knowledge (30%) and 4 had good knowledge (13.33%).

**Association between the BLS course and knowledge of code blue**

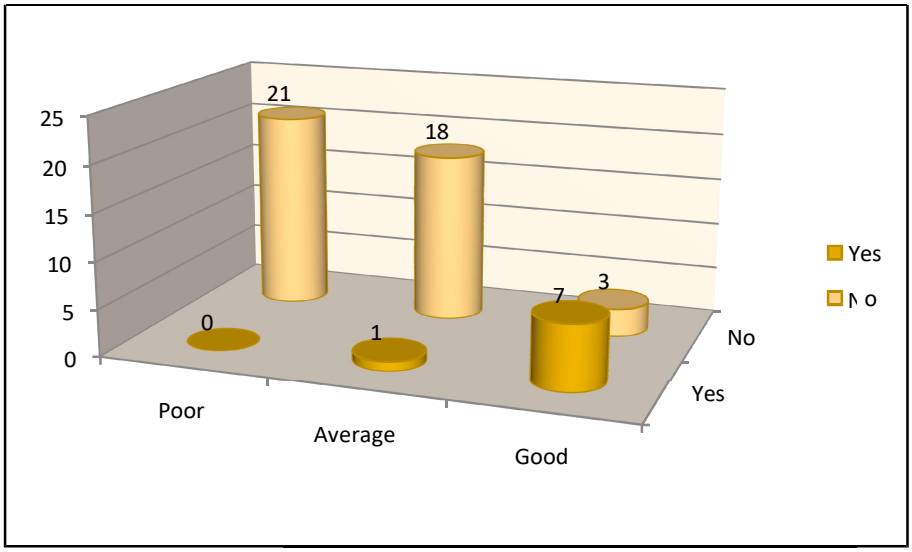


**Fig No 3: Diagram showing percentage wise distribution of knowledge level according to BLS course**

**A Significant association was seen between the BLS Course and knowledge of code blue (p = <0.0001). Out of 8 participants with who did BLS course, none had poor knowledge (00%). 1 participant had average knowledge (12.5%) and 7 (majority) had good knowledge (87.5%).**Out of total 42 participants who didn't do BLS course, 21 (majority) had poor knowledge (50%), 18 had average knowledge (42.85%) and 3 had good knowledge (7.14%).

## MAJOR FINDING OF THE STUDY

This study showed that the staff nurses hadpoorknowledge about Code blue.The significant association was found between the Experience, Area of work, BLS course, Delivery of CPR and Knowledge score of staff nurses.

## CONCLUSION

Based on the findings of the study following conclusion were drawn. Nurses have poor knowledge about code blueguidelines. Younger age group had higher mean knowledge than that of older age group. There is a need to train nurses about the hospital emergency codes and their implementation. Based on the findings of the study a detailed information booklet was prepared which included information such as meaning of code blue, indications, initiating a Rapid Response and Code Blue, Code blue team members and role of each team, equipment used in code blue, end of code and Post Resuscitation Care.

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