# A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge Regarding Crash Cart Among The Nursing Students At Selected Nursing College, Kolar

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## ABSTRACT

*As the field of Emergency Medicine grows worldwide, the importance of an Crash Cart has long been recognized. Any facility that treats patients who have the potential to have a sudden deterioration in their condition should have a crash cart available. Emergency trolleys are essential to save lives in a critical situation. Well equipped emergency trolley and properly functioning equipment can reduce the in-hospital mortality, considerably. It is important to carry out regular check, maintain and restock emergency trolleys in order to maximize the efficiency and avoid delays in critical care management .The present study was conducted to study to assess the effectiveness of structured teaching programme on knowledge regarding crash cart among the nursing students at selected nursing college, kolar. Pre experimental study ,one group pre test and post test design was used to collect the data. Probability-simple random sampling technique was adopted to select the samples for the present study based on inclusion criteria.The tool consisted of 2 parts; Part –I consisted demographic variables of the subjects. Part II consisted of Structured Knowledge questionnaires to assess the knowledge of regarding crash cart . 77%of nursing students had inadequate knowledge and none of them had adequate knowledge on crash cart in pre test. 60% of nursing students had adequate knowledge and 22 % had moderate knowledge on crash cart in post test. The obtained "t" value 11.83 was greater than the table value at 0.05 level of significance. Thus the study supported that Structured Teaching Programme on Crash cart was effective in increasing the knowledge level of $2^{nd}$ year B.Sc nursing students.*
*Keywords: Crash cart, life support*

## I. INTRODUCTION

An emergency is any medical problem that could cause death or permanent injury if not treated quickly[1]

Emergency Nursing is a nursing specialty in which nurse's care for patients in the emergency or critical phase of their illness or injury. In contrast to practically every other specialty of nursing, in which a patient arrives with a diagnosis applied by a physician and the nurse, must manage the patient's care according to that diagnosis, emergency nurses work with patients in whom a diagnosis has not yet been made and the cause of the problem is not known[2]

Emergency nurses frequently contact patients in the emergency department before the patient sees a physician. In this situation, the nurse must be skilled at rapid, accurate physical examination, early recognition of life-threatening illness or injury, the use of advanced monitoring and treatment equipment, and in some cases, the ordering of testing and medication according to "advance treatment guidelines" or "standing orders" set out by the hospital's emergency physician staff. [2]

Any facility that treats patients who have the potential to have a sudden deterioration in their condition should have a crash cart available. [3]

A crash cart is a set of trays/drawers/shelves on wheels used in hospitals for transportation and dispensing of emergency medication/equipment at site of medical/surgical emergency for life support protocols (ACLS/ALS) to potentially save someone's life. The cart carries instruments for cardiopulmonary resuscitation and other medical supplies while also functioning as a support litter for the patient

A crash cart does not hold the typical, everyday supplies of an equipment cart. Instead, it functions as a lifesaving station.

**STATEMENT OF THE PROBLEM**
A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING CRASH CART  AMONG THE NURSING STUDENTS AT SELECTED NURSING COLLEGE, KOLAR

**OBJECTIVES OF THE STUDY**
- To assess the pre-test knowledge regarding crash cart  among  the nursing students in a selected nursing college at kolar
- To evaluate  the effectiveness of structured teaching programme  on knowledge regarding crash cart among  the nursing students
- To determine the association between the pretest knowledge scores of  the nursing students on knowledge regarding crash cart with their selected demographic variables.

**NULL HYPOTHESIS:**
$H_{01}$: There will be no significant difference between the pre-test and post-test knowledge score of  nursing students after the administration of structured teaching programme on knowledge regarding  crash cart.
$H_{02}$: There will be no significant association between the knowledge level of nursing students on knowledge regarding  crash cart  with  their selected demographic variables

## II.    METHODOLOGY

**RESEARCH APPROACH**
An Quantitative research approach was considered to be the most appropriate and adopted.

**RESEARCH DESIGN**
Pre experimental research with one group pre and post test design has been used to attain the objectives of the present study.

**SETTING**
Based on the feasibility, the investigator selected ETCM college of Nursing Kolar to conduct study.

**VARIABLES**

**Independent variable**
In this study the independent Variable refers to Structured teaching Programme regarding crash cart

**Dependent variable**
In the present study it refers to Knowledge of $2^{nd}$ year B.Sc nursing students regarding crash cart

**Demographic variables**
 It include the socio demographic variable of nursing students such as Age, Gender,   previous exposure to knowledge within 6 months regarding crash cart and Sources of information on crash cart.

**POPULATION**
 Target population of the present study comprises of nursing students and accessible population is $2^{nd}$ year B.sc nursing students studying at ETCM college of Nursing , kolar.

**SAMPLE**
Sample size of the present study consists of sixty 2nd  year Bsc Nursing students from ETCM nursing college at Kolar.

**SAMPLING TECHNIQUE**
Probability-simple random sampling technique was adopted to select the samples for the present study based on inclusion criteria.

**SAMPLING CRITERIA**
The samples were selected with the following predetermined set of criteria.

**Inclusion criteria:**

$2^{nd}$ year B Sc Nursing students who are present at the time of study.

$2^{nd}$ year B Sc nursing students who are willing to participate in the study

**Exclusion criteria:**

$2^{th}$ year BSc Nursing students who are sick and absent during the time of data collection.

$2^{th}$ year BSc nursing students who are not willing to participate in the study

**DESCRiPTION OF THE TOOL**

Structured questionnaire consist of 2 parts i.e. Part I and part II

**Part I:**Demographic Variables like age, gender, previous exposure to knowledge within 6 months regarding crash cart and Sources of information on crash cart.

**Part II- Assessment of Knowledge:**

Structured Knowledge questionnaire was used to assess the knowledge of $2^{nd}$ year BSc nursing students knowledge on Crash Cart. 25 multiple choice questions of four options with one correct answer were used. The total score was 25.

Data analysis was done using descriptive and inferential statistics

# III. RESULT

**PRE TEST AND POST TEST KNOWLEDGE LEVEL OF $2^{nd}$ YEAR B.SC NURSING STUDENTS**

**N=60**

| Sl no | KNOWLEDGE LEVEL | PRE TEST | | POST TEST | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Frequency | Percent |
| 1 | Inadequate knowledge | 46 | 77% | 11 | 18% |
| 2 | Moderate knowledge | 14 | 23% | 13 | 22% |
| 3 | Adequate knowledge | 0 | 0 | 36 | 60% |
| | **Total** | 60 | 100 | 60 | 100 |

**COMPARISON OF PRETEST AND POST TEST KNOWLEDGE SCORES OF 2nd YEAR B.SC NURSING STUDENTS REGARDING CRASH CART**

**N=60**

| Sl. No. | Knowledge aspects | Pre test | | Post test | | Mean difference | t Value | Df | Inference |
|---|---|---|---|---|---|---|---|---|---|
| | | Mean | S D | Mean | S D | | | | |
| 1 | General concept, definition, purpose | 1.56 | 0.97 | 2.96 | 0.98 | 1.4 | 8.859 | 59 | S |
| 2 | Functions, policies, maintainence& general principles | 1.93 | 1.04 | 2.95 | 0.95 | 0.09 | 6.561 | 59 | S |
| 3 | Arrangement of contents & emergency medications | 6.71 | 2.49 | 11.5 | 3.33 | 4.85 | 9.305 | 59 | S |
| | **Overall** | 10.21 | 3.10 | 17.4 | 4.27 | 7.26 | 11.83 | 59 | S |

From the above table it is evident that the obtained "t" value 11.83 is greater than the table valueat 0.05 level of significance. Therefore, "t" value is found to be significant. It means there is gain in knowledge level of $2^{nd}$ year B.Sc nursing students. This supports that Structured Teaching Programme on Crash cart is effective in increasing the knowledge level of $2^{nd}$ year B.Sc nursing students. The Null hypothesis framed $H_{01}$ was rejected.

**ASSOCIATION OF THE PRE TEST KNOWLEDGE SCORES OF $2^{nd}$ YEAR B.Sc NURSING STUDENTS WITH THE SELECTED DEMOGRAPHICVARIABLES**

**N= 60**

| Variables | Below Median & Median | Above median | Chi square | Df | (0.05) | Inference |
|---|---|---|---|---|---|---|
| • **Age in years** | | | | | | |
| • 19- 20 years | 14 | 14 | | | | |
| • 20- 21years | 18 | 9 | 3.42 | 3 | 7.81 | NS |
| • 21.1 -22 years | 3 | 1 | | | | |
| • >22 years | 0 | 1 | | | | |
| • **Gender** | | | | | | |
| • Male | 4 | 5 | 0.84 | 1 | 3.84 | NS |
| • female | 31 | 20 | | | | |
| • **Previous exposture to Knowledge on crash cart within 6 months** | | | | | | |
| • Yes | 10 | 8 | 0.081 | 1 | 3.84 | NS |
| • No | 25 | 17 | | | | |
| • **Source of Information** | | | | | | |
| • Print media | 3 | 3 | | | | |
| • Electronic media | 4 | 1 | 1.723 | 2 | 5.99 | NS |
| • Persons | 5 | 6 | | | | |

From above table it is evident that the obtained $\chi^2$ value is less than table value of selected demographic variable of nursing students was not significantly associated with pre- test knowledge score of nursing students. Hence the Null hupothesis $H_{02}$ was accepted

## NURSING IMPLICATIONS
### Nursing Education

• This study facilitates the nurse educator to develop insight in the development of teaching materials on crash cart
• Nurses should conduct further research studies to develop different approaches in imparting knowledge on crash cart
• As a nurse educator, there is opportunity, in simple measure, for the nursing professional to educate the student nurses to use crash cart effectively.
• Nurse educator must use various educational programme like workshops, seminars, and training programme regarding crash cart .

### Nursing practices
Nurses play a vital role in the health care delivery system. Nurses serve as a liaison between different categories of health care workers in a health team. She co-ordinates all services in a health team. She has all the opportunities to identify the health needs of her co -workers. The study findings imply that there is a need for regular teaching programme and to be carried out or organized by nursing personnel to create awareness regarding crash cart and to improve knowledge by nursing students.
The investigator as a nurse felt the need for nurses to act as facilitators to educate the nursing students so that they can help and teach their friends regarding the crash cart. Nurses can undertake good supervision of their subordinates and appreciation of their correct practices. Nurses can provide educational materials on crash cart in the form of pamphlets, instructional modules, audio and video tapes to their subordinates and other friends and juniors. Educational materials on different devices of medicines & equipments like posters can be used as reminder in different areas to keep in touch with medicines &equipments.

### Nursing administration
• The nursing administrator should take part in the making of health policy, development of protocols and with respect to crash cart for student nurses.
• The nursing administrator should concentrate on the proper selection, placement and effective utilization of the nurse in all areas giving opportunity for creativity, creating interest and enhance ability in educating the student nurses on crash cart
• Nursing administrator should initiate organizing in-service education program for students nurse

### Nursing research

Emphasis on nursing research or clinical studies is needed to improve the quality of the nursing care. One of the most important aims of nursing research is to contribute knowledge to the body of nursing profession and expand the scope of nursing. The present study throws light on student nurses knowledge, in relation to crash cart

The nursing research should conduct research on various aspects of crash cart, which provides more scientific data and adds more scientific body of information to the nursing profession. The study will motivate the initial researchers to conduct the same study on large scale and the study will be a reference for the research scholars.

**Limitations**
* Study was conducted in specific geographic area imposes limits on generalization
* The findings could be generalized only to the population which fulfilled the criteria in the study.
* The study limited to assessment of knowledge.
* The sample was limited to 60 only

**Recommendations**
On the basis of the findings of the present study the following recommendations have been made for the further study.
* A similar study can be replicated on a large sample to generalize the findings.
* A similar study may be conducted in different group like IIIGNM and staff nurses.

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