

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Utilization of Crash Cart Trolley among III-B.Sc. Nursing Students at Selected College Villupuram

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ABSTRACT

Aim: To assess the effectiveness of structured teaching programme on knowledge regarding utilization of crash cart trolley among III -B.Sc Nursing students at selected college, Villupuram

Objectives:

1. To assess the knowledge on utilization of crash cart trolley among III-year, B.Sc [N] students.
2. To evaluate the effectiveness of structured teaching programme on knowledge regarding utilization of crash cart trolley among III year, B.Sc [N] students.
3. To find the association between the post-test knowledge regarding utilization of crash cart trolley among III year, B.Sc [N] students with their selected socio-demographic variables.

Methodology: A Pre experimental design with pre-test and post-test without control group was undertaken from E.S College of nursing. The population of the study consists of B.Sc (N) III Year students at E.S. College of nursing.

Results: The structured questionnaire was used to computed the data. The statistics shows the following results.

Level of knowledge in pre-test 80% of students having inadequate knowledge, 20% of students having moderate knowledge, 0% of students having adequate knowledge.

Level of knowledge in post-test 0% of students having inadequate knowledge, 10% of students having moderate knowledge, 90% of students having adequate knowledge.

There was significant with gender and source of information.

There was no association between age, previous academic year percentage, previous exposure to crash cart trolley.

Conclusion: The present study assessed the knowledge regarding crash cart trolley in pre-test. After providing structured teaching programme on utilization of crash cart trolley there is a significant improvement on knowledge of students regarding crash cart trolley. The study assessed the knowledge among students and they are gained in knowledge about crash cart trolley. The study concluded that the structured teaching programme was effective in improving in the knowledge regarding crash cart trolley.

Keywords: Utilization of Crash Cart Trolley

INTRODUCTION

“People who are always taking care of their health are like misers who are hoarding a treasure which they have never spirit enough to enjoy”.

~Laurence Sterne

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. 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. Emergency nurses most frequently are employed in hospital emergency departments, though they may also work in free-standing urgent care clinics.

Crash cart is a specially designed trolley, used for transporting and dispensing medicines and equipment at the emergency site for participating in life saving measures. Crash carts are located in the areas of patient care in case of a life-threatening occurrence. Physicians, nurses, pharmacists, and respiratory therapists must become familiar with the contents of this cart. It contains necessary equipment to handle an emergency. A crash cart is enabling healthcare providers to manage medical emergencies easily and confidently.

The cart is characterized by being easily movable and readily accessible into all sides of the cart for quickly viewing and removing equipment and drugs during a crisis. The first cardiac crash cart was created at Bethany Medical Center in Kansas City, Kansas. One of the doctor's fathers fabricated the first crash cart. It contains an Ambu-bag, defibrillator paddles, a bed board and endotracheal tubes. A crash cart or code cart (crash trolley in UK medical jargon) is a set of trays/drawers/shelves on wheels used in hospital emergency rooms for transportation and dispensing of emergency medication/equipment at site of medical/surgical emergency for life support protocols like Advanced Cardiac Life Support/Advance

Life Support (ACLS/ALS), Pediatric Advanced life Support [PALS] to potentially save someone's life.

The contents of a crash cart vary from hospital to hospital, but typically contain the tools and drugs needed to treat a person in or near cardiac arrest. These include but are not limited to:

- Monitor/defibrillators and suction devices
- Advanced Cardiac Life Support (ACLS) drugs such as Epinephrine, Atropine, Amiodarone, Lidocaine, Sodium bicarbonate, Dopamine, and Vasopressin
- First line drugs for treatment of common problems such as: Adenosine, Dextrose, Diazepam or Midazolam, Epinephrine, Naloxone, Nitroglycerin, and others
- Drugs for rapid sequence intubation: Succinylcholine or other paralytic agents like Pancuronium, a sedative drug such as Etomidate or Midazolam; endotracheal tubes and other intubating equipment
- Vascular access devices-Intra Venous (IV) Cannula, Drip sets [Micro and Macro], IV fluids [Normal Saline (NS), Lactated Ringer (RL), Hydroxyethyl starch
- Other drugs and equipment as chosen by the facility.

Statement of the Problem

“A study to assess the effectiveness of Structured teaching programme on knowledge regarding utilization of crash cart trolley among III year, B.Sc. [N] students at selected College Of Nursing, Villupuram’.

Objectives

- To assess the knowledge on utilization of crash cart trolley among III-year, B.Sc [N] students.
- To evaluate the effectiveness of structured teaching programme on knowledge regarding utilization of crash cart trolley among III year, B.Sc [N] students.

- To find the association between the post-test knowledge regarding utilization of crash cart trolley among III year, B.Sc [N] students with their selected socio-demographic variables.

Post-test knowledge of student nurses.

Hypothesis

H₁ There is a significant difference in pre - test and posttest knowledge of Student nurses.

H₂ There is a significant association between the demographic characteristics and the

MATERIAL AND METHODS

A Pre experimental design with pre - test and post- test without control group was undertaken from E.S College of nursing. The population of the study consists of B.Sc (N) III Year students at E.S. College of nursing.

RESULT AND DISCUSSION

A Comparison of Pre and Post-Test Level of Knowledge on Utilization of Crash Cart Trolley among III Year B.Sc Nursing Students

Level Of Knowledge	Pre-Test Score		Post-Test Score	
	Number	Percentage	Number	Percentage
Adequate (>76%)	0	0	36	90%
Moderate (51-75%)	8	80%	4	10%
Inadequate (<50%)	32	20%	0	0

Assessment of the Level of Knowledge Regarding Utilization of Crash Cart Trolley among B.Sc Nursing III Year Students with before and after Structured Teaching Programme

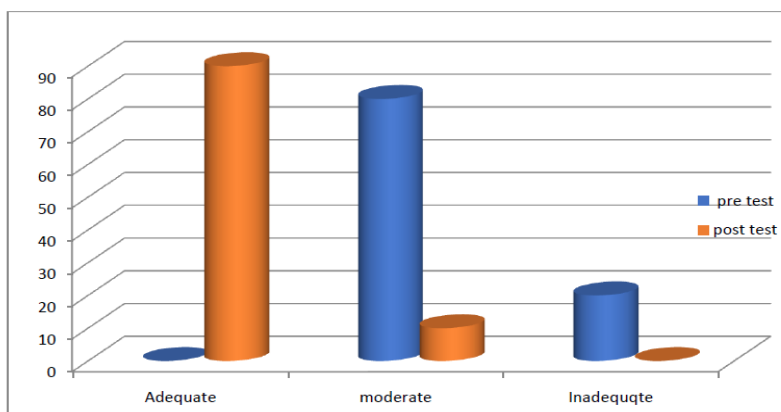


Fig: Assessment of the level of knowledge regarding utilization of crash cart trolley among B.Sc. nursing III year students with structured teaching programme.

Effectiveness of Structure Teaching Programme on Knowledge Regarding Utilization of Crash Cart Trolley

Table 3.1.1: Effectiveness of structure teaching programme on knowledge regarding utilization of crash cart trolley

S.No.	Characteristics	Mean	Sd	Calculated Value	T-Value
1.	Pre-test	8.425	2.011063	14.91	5.99
2.	Post-test	16.5	8.16123	2.39	-

P<0.05* = statistically significant

Paired “t” test was done to assess the effectiveness of structured teaching programme on knowledge regarding crash cart trolley among B.Sc.(N) III-Year. The calculated value 2.39 was greater than the tabulated value 5.99 at p<0.05 level. This shows that was a significant difference

between the pre and post-test level of knowledge and regarding crash cart trolley. Hence structured teaching programme was effective in improving the knowledge regarding crash cart trolley among B.Sc.(N) III-Year students.

Association between the Post-Test Knowledge Regarding Utilization of Crash Cart Trolley among B.Sc. Nursing III-Year Students with the Selected Demographic Variables

Table 4.1.1: Association between the post-test knowledge regarding utilization of crash cart trolley among B.Sc. Nursing III-Year Students with the selected demographic variables

S.no.	Characteristic	Frequency	Chi-square	T-value
1.	Age			
	18	1	5.57887	12.59
	19	9	NS	DF=6
	20	25		
	21	1		
2.	Gender			
	Male	5	0.63492	5.99
	Female	35	S	DF=2
3.	Previous Year Academic Percentage			
	<50	0	2.40602	12.59
	51-60	0	NS	DF=6
	61.70	14		
	>71	14		
4.	Previous Exposure To Crash Cart Trolley			
	Yes	26	2.39316	5.99
	No	14	S	DF=2
5.	Source Of Information			
	Books & journals	3	2.14815	12.59
	Mass media	3	NS	DF=6
	Teacher's class	3		
	Clinical side	31		

The above table shows that there is significant association between demographic variable are gender and previous exposure to crash cart trolley. And there is no significant association was found with other demographic variables such as age, Previous academic year %, Source of information.

DISCUSSION

The aim of the study to assess the effectiveness of structured teaching programme on knowledge regarding utilization of crash cart trolley among B.Sc. [N] III-Year students in E.S. College of Nursing at Villupuram.

The pre experimental one pre-test and post-test design was adopted for this study and the number of sample is 40.

With the reference of the objectives like age, gender, previous academic year percentage, previous exposure in using crash cart trolley, source of information.

The discussion was based on the objectives specified in this study:

➤ To assess the knowledge on utilization of crash cart trolley among III year, B.Sc [N] students.

➤ To evaluate the effectiveness of structured teaching programme regarding knowledge on utilization of crash cart trolley among III year, B.Sc [N] students.

➤ To find the association between the post-test knowledge regarding utilization of crash cart trolley among III year, B.Sc [N] students with their selected socio-demographic variables.

1. The first objective was to assess the knowledge regarding utilization of crash cart trolley among nursing students:

The mean score was 57% Correct. Although of intensive care unit nurses correctly identify the equipment's should be measured, only 61% were able to measure it correctly, and answer to this practical question varied.

2. Second objective was to assess the effectiveness of Structured Teaching Programme on knowledge regarding utilization of crash cart trolley among B.Sc. [N] Nursing student in E.S College of Nursing V.Salai, Villupuram.

The result shows that 70% nurses have sufficient skills and 95% of the nurses have mathematical skills. Moreover, 79% have sufficient knowledge on conversions, solution calculation (50%), tablet calculation (95%), weight calculation (77%), and infusion rate calculation (73%). The analysis revealed that the youngest nurses (20-29 years) have adequate skills, and where as the oldest (50-59 years) have less skill. According to above study Investigator concludes that the pharmacological skills of the nurses seemed to be inadequate.

3. Third objectives was find the association between the post-test knowledge regarding utilization of crash cart trolley among III Year, B.Sc. [N] students with their selected socio-demographic variables.

Findings of the study revealed that the mean pre-test knowledge scores of nurses on organization of emergency drugs were 22.47, which was found to be inadequate. There was an increase in the post test knowledge after the administration of self-instructional module. An evaluative study was conducted on the effectiveness of self-instructional module on selected drugs used in critical care units. The pre-test mean percentage knowledge of nurses was found to be less than 50%(49.92%). Findings of the study indicated that nurses were not adequately equipped with the knowledge on selected drugs. An increased knowledge score has obtained after the administration of self-instructional module.

CONCLUSION

The present study assessed the knowledge regarding crash cart trolley in pre-test. After providing structured teaching programme on utilization of crash cart trolley there is a significant improvement on knowledge of students regarding crash cart trolley. The study assessed the knowledge among students and they are gained in knowledge about crash cart trolley. The study concluded that the structured teaching

programme was effective in improving in the knowledge regarding crash cart trolley.

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Ethical Approval: Approved

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