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A Study to Assess the Effect of Structured Teaching Programme on Knowledge Regarding Emergency Crash Cart in Hospital among GNM (General Nursing and Midwifery) 3rd Year Students at Selected College of Nursing, Lucknow

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Abstract: ***The crash cart was originally designed by ECRI institute founder by Joel J. Nobel, M. D. while a surgical resident at Philadelphia's Pennsylvania hospital in1965. The first cardiac crash cart was created at Bethany Medical Center in Kansas City, Kansas. The first crash cart was fabricated by one of the doctor's fathers. It contained an Ambu bag, defibrillator paddles, a bed board and endotracheal tubes. Problem statement "A study to assess the effect of Structured Teaching Programme on Knowledge regarding Emergency Crash Cart in Hospital among GNM (General Nursing and Midwifery) 3rd year Students at selected College of Nursing, Lucknow." This study was conducted by using quantitative approach at Era College of Nursing and St Marry College of Nursing. True experimental research design has been used. The total sample size was 60, 30 in each group experimental and control group. Before conducting this study written consent was obtained from the samples. Simple Random sampling (Lottery Method) was used. Data collection was done using structured questionnaire. The experimental group mean 24.32 of post-test knowledge level was more than the control group means 12.26 of Post-test knowledge level of GNM 3rd year students. The comparison of experimental group Post-test and control group post-test knowledge level on Emergency Crash cart in hospital among GNM 3rd students had significant difference with t valve (2.00) at p< 0.05 Level of significance.***

Keywords: Effect, Structured Teaching Programme, Knowledge, Emergency Crash Cart, GNM, General Nursing and Midwifery, Students

1.Introduction

Emergency Nursing is a nursing specialty in which nurse's care for patients in the emergency or critical phase of their illness or injury. Emergency nurses work with patients whose 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 rapid and skilled at accurate physical examination, early recognition of life-threatening illness or injury, monitoring of the patients and in the use of advanced health care gadgets and treatment equipment. They should also be through with treatment and investigation protocols as "advance treatment guidelines" or "standing orders" set out by the hospital's department.

2.Review of Literature

In this present study the review of literature is organized under the following sections:

Section I-Literature related to general information on crash cart system.

Section II-Literature related to knowledge of staff nurses on crash cart system.

Section III-Literature related to effect of teaching programme on knowledge regarding utilization of crash cart system in Nursing Students.

3.Research Statement

"A study to assess the effect of Structured Teaching Programme on Knowledge regarding Emergency Crash Cart in Hospital among GNM (General Nursing and Midwifery) 3rd year Students at selected College of Nursing, Lucknow."

4.Objective

1. Assess the Pre-test and Post-test knowledge level regarding Emergency Crash Cart in hospital for experimental and control group among GNM (General Nursing and Midwifery) 3rd year students.
2. Evaluate the effect of Structured Teaching Programme on knowledge regarding Emergency Crash Cart in hospital of experimental group among GNM (General Nursing and Midwifery) 3rd year students.
3. Association of the Pre–test knowledge and post-test knowledge level with selected demographic variables for experimental and control group among GNM (General Nursing and Midwifery) 3rd year students.

5.Research Methodology

Research Approach	Quantitative research approach
Design	True experimental design (Pre-test Post-test control group design)
Setting	Era College of Nursing (experimental group) and St Marry college of Nursing (Control group)
Population	GNM 3rd year students.
Assessable Population	GNM 3rd year students in Era College of Nursing (experimental group) and St Marry college of Nursing (Control group)
Sample Size	60
Sample technique	Random Assignment (Lottery Method)
Tool	Structured questionnaire

Development and description of the tool

Part A: It consists of demographic characteristics

Part B: It consists of knowledge items regarding Emergency Crash Cart in hospital. This section consists of 30 items. Each item has four options with one most correct answer. For each item, the correct answer carries the score of 'one' and wrong answer carries the score of 'Zero'. There for 30 items there was 30 maximum obtainable score.

Criterion measure: (tentative plan)

Knowledge level	Score	Score weightage
Inadequate	**00-10**	**0-33%**
Moderate	**11-20**	**34-66%**
Adequate	**21-30**	**67-100%**

Ethical consideration

- The main study was conducted after the approval of research committee permission will be obtained from the following.
- The principal of Era College of Nursing.
- The ethical committee of Era University.
- The principal of St Marry College of Nursing.
- Informed consent will be taken from the Sample who are willing to participate in this study.

Reliability

The reliability of standardized tool was computed by Cronbach's alpha or coefficient alpha. result of reliability test was come 0.77 and tool was found reliable.

Plan for data collection

- Permission from the authorities of the institutions.
- Selected the sample through Lottery Method.
- Consent from research participants.
- Pre-test related to knowledge of Emergency Crash Cart for both experimental and control group.
- Structured teaching programme on Emergency Crash Cart on the same day.
- Post-test after 7 days of structured teaching programme on Emergency Crash Cart for both experimental and control group.

Data analysis and interpretation

- Frequency and percentage distribution for analysis of demographic data
- Use of descriptive and inferential statistics to analyses and compare the pre-test and post test score
- Check the hypothesis by using Paired T test and comparison of data between the two groups was done by using inferential statistics be means of paired T test and unpaired t test.
- Inferential analysis to calculate the association between pre-test and post-test knowledge level with demographic variable in experimental and control group.

Analysis and interpretation

a) Frequency and percentage computation to describe the sample characteristics of experimental group in the study

Table 1: Frequency and percentage computation to describe the sample characteristics of experimental group in the study

n-30 in Experimental Group

S. no.	Demographic data	Category	Experimental Group	
			Frequency (N)	Percentage (%)
1.	Age (in years)	17-21	16	53.3
		22-26	22	40.0
		27-30	02	6.7
2.	Gender	Male	0	0
		Female	30	100
3.	Expose to Emergency Crash Cart During clinical Posting	1-5times	11	36.7
		6-10times	03	10.0
		More than10	16	53.3
4.	Source of Information related to Emergency Crash Cart	Nursing and Medical books	14	46.7
		Hospital Experience	15	50
		Journal	01	3.3

Table Revealed:

According to **Age** among 30 samples of experimental group, 16 (53.3%) were from 17-21 years age group, 12

(40%) were from 22-26 years of age group and 2 (6.7%) were from 27-30 years of age group.

According to **Gender** among 30 samples of experimental group, 30 (100%) were females.

According to **Exposure to Emergency Crash Cart during clinical posting** among 30 samples of experimental group, 11 (36.7%) were from 1-5 times, 3 (10%) were from 06-10 times and 16 (53.3%) were from more than 10 times.

According to **Sources of information regarding Emergency Crash Cart** among 30 samples of experimental group, 14 (46.7%) were from nursing and medical book, 15 (50%) were from hospital experience and 1 (3.3%) were from more journal.

b) Frequency and percentage computation to describe the sample characteristics of control group in the study

Table 2: Frequency and percentage computation to describe the sample characteristics of control group in the study

n-30

S. no.	Demographic data	Category	Experimental Group	
			Frequency (N)	Percentage (%)
1.	Age (in years)	17-21	19	63.3
		22-26	08	26.7
		27-30	03	10.0
2.	Gender	Male	06	20.0
		Female	24	80.0
3.	Expose to Emergency Crash Cart During clinical Posting	1-5times	10	34.5
		6-10times	7	24.1
		More than10	13	43.3
4.	Source of Information related to Emergency Crash Cart	Nursing and Medical books	16	53.3
		Hospital Experience	13	43.3
		Journal	1	3.3

Table Revealed:

According to **Age** among 30 samples of control group, 19 (63.3%) were from 17-21 years age group, 8 (26%) were from 22-26 years of age group and 3 (10%) were from 27-30 years of age group.

According to **Gender** among 30 samples of control group, 6 (20%) were males and 24 (80%) were females.

According to exposure to emergency crash cart during clinical posting among 30 samples of control group, 11 (36.7%) were from 1-5 times, 3 (10%) were from 06-10 times and 16 (53.3%) were from more than 10 times.

According to sources of information regarding emergency crash cart among 30 samples of control group, 16 (53.3%) were from nursing and medical book, 13 (43.3%) were from hospital experience and 1 (3.3%) were from more journal.

Table 3: Mean & mean percentage % distribution comparison of Pre-interventional and Post interventional knowledge scores on Emergency Crash cart among experimental group and control group

n = 30 in each group

Aspects	Mean	Mean %	SD	Paired T Valve	df	P valve
Experimental group	9.13	30.43	4.42	20.362	29	.000
	24.32	81.06	4.31			
Enhancement	15.19					

* Significant at < 0.05% level, Table value at 0.05 levels=2.05

Comparison of the post-test knowledge scores (Mean score) of Experimental and Control Groups

Table 4: Mean & mean percentage % distribution comparison of Posttest score between experimental group and control group

n = 30 in each group

Aspects	Mean	Mean %	SD	Unpaired t test	df
Experimental group	24.32	81.06	4.31	15.094	58
Control group	12.26	40.86	5.08		

*Significant at level p < 0.05 Table value at 0.05 levels= 2.00

*Non-significant at level p< 0.05

Section A: Association of the pre–test knowledge and post-test knowledge level with selected demographic variables for experimental group

Association of the Pre–test and Post-test knowledge level with selected demographic variables for Experimental group.

- The researcher calculated the value of chi square in order to find out Association of the Pre–test and Post-test knowledge level with selected demographic variables for Experimental group at p<0.05 level of significance.
- The study finding also showed that there is no association of Pre-test knowledge level and Post-test knowledge level with selected demographic variable like Age, Gender, and Exposure of Emergency Crash Cart during clinical posting, Source of information regarding Emergency Crash Cart.

Section B: Association of the pre–test knowledge and post-test knowledge level with selected demographic variables for control group

Association of the Pre–test and Post –test knowledge level with selected demographic variables for Experimental group.

- The researcher calculated the value of chi square in order to find out Association of the Pre–test and Post-test knowledge level with selected demographic

variables for Experimental group at $p<0.05$ level of significance.

- The study finding also showed that there is no association of Pre-test knowledge level with selected demographic variable like Age, Gender, and Exposure of Emergency Crash Cart during clinical posting, Source of information regarding Emergency Crash Cart.

6.Discussion

Finding shows that the comparison of experimental group and Control group Post-test knowledge on Emergency Crash Cart in hospital among GNM 3rd students. The experimental group means 24.32 of post test score was more than the control group mean 12.26 of Post-test level of GNM 3rd year students. The comparison of experimental group Post-test and control group post-test level of knowledge on Emergency Crash cart in hospital among GNM 3rd students had significant difference with t valve (2.00) at $p< 0.05$ Level of significance. Comparison of post-test Increase in knowledge score in experimental Group and control of Emergency Crash Cart was statistically tested by Using unpaired 't' test. The calculated t value 15.094 is highly significant with the degree of freedom of 58 at $p<0.05$ which shows that STP was for improving the knowledge on Emergency Crash Cart in Hospital.

7.Conclusion

The present study revealed that structured teaching programme is effective to enhance the knowledge level regarding Emergency Crash cart in hospital among GNM 3rd year students. There was no significant association between pre-test and post-test knowledge level and demographic variables in experimental and control group.

Author Profile

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