Original Article

Journal of Emergency and Trauma Nursing
Volume 5 Number 2, July - December 2024

Effectiveness of Structured Teaching Program on Knowledge Regarding Emergency Drugs Among Staff Nurses Working in Selected Hospital Amritsar, Punjab

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How to cite this article:

Vijayalakshmi, Effectiveness of Structured Teaching Program on Knowledge Regarding Emergency Drugs Among Staff Nurses Working in Selected Hospital Amritsar, Punjab. J of Emer and Trauma Nurs. 2024;5(2):43–48.

Abstract

Context: Emergency drugs are chemical drugs used in life-threatening conditions to control symptoms and save lives. As a front line workers, nurses have prime responsibility to develop adequate knowledge about emergency drugs.

Aim: The aim of the study is to assess the level of knowledge regarding emergency drugs among staff nurses before and after teaching.

Setting and Design: Guru Nanak dev hospital Amritsar, Punjab and Quasi experimental Research design with non-randomized Control group design.

Methods and Material: The sample of 60 staff nurses in that 30 experimental group and 30 control group were selected by purposive sampling technique. The tools were demographic variables and structured knowledge Questionnaire regarding emergency drugs.

Statistical analysis used: The collected data were tabulated, analyzed and interpreted by using descriptive and inferential method.

Results: The results showed that in control group during pretest majority 19(63.3%) had poor knowledge and 11(36.7%) had average knowledge where as in experimental group maximum 18(60%) had poor knowledge and 12(40%) had average knowledge. In experimental group during posttest majority 23(76.7%) had good knowledge and 7(23.3%) had average knowledge where as in control group majority 17(5.7%) had poor knowledge, 13(73.3%) had average knowledge and no one have good knowledge.

Conclusion: Findings showed that structured teaching program was effective in improving the knowledge regarding emergency drugs among staff nurses in Experimental group as compared to control group.

Keywords: Knowledge, Emergency Drugs, Structured teaching program, Staff Nurses.

INTRODUCTION

Medical emergencies are the situation of life and death. Although all medical emergencies are not life-threatening. But some medical conditions may need immediate medical attention. Emergency drugs are those medicines that are used in critical or life-threatening conditions like cardiac arrest, septic shock, convulsion, trauma, etc. These drugs help to

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Received on: 08-10-2024 **Accepted on:** 03-11-2024

treat symptoms and to save patient life. So, it is also called Life Saving drugs (Sumit Sharma., 2021)[1]. Emergency drugs are those medications which may be required to meet the instant therapeutic needs of patients and which are not available from any other ratified source in enough time to stop threat or harm to patients (Zaer A., 2022)[2].

PROBLEM STATEMENT

A quasi-experimental study to assess the effectiveness of structured teaching program on knowledge regarding emergency drugs among staff nurses working in Guru Nanak Dev hospital Amritsar.

OBJECTIVES

1. To assess the pretest level of knowledge among the control group and experimental group of staff nurses.
2. To assess the posttest level of knowledge among the control group and experimental group of staff nurses.
3. To compare pretest and posttest level of knowledge between control andexperimental group of staff nurses
4. To assess the effectiveness of structured teaching program among experimental groups
5. To find out association between pretest knowledge with their selected demographic variables of experimental groups.

HYPOTHESIS

1. **H_1:** There will be significant difference between pretest and posttest level of knowledge regarding emergency drugs between experimental group and control group.
2. **H_2:** There will be significant association between the pretest level of knowledge and their selected demographic variables among staff nurses in control and experimental group.

MATERIALS AND METHODS

Research approach – Quantitative approach-Comparative survey (Raman Kalia., *et al.* 2020)[3]

Research Design – A Quasi experimental Research design with non-randomized Control group design was used (Suresh K Sharma2021)[4]

Setting of the study – The study was conducted in Guru Nanak dev hospital Amritsar, Punjab.

Sample Size – 60 staff nurses in that 30 experimental group and 30 control group.

Sampling Technique – Purposive sampling technique (Bharat Pareek, Shivani Sharma. 2011)[5]

DESCRIPTION OF TOOLS

Part A: Demographic variables

It deals with the demographic variables such as age, gender, qualification, experience and area of working.

Part B: Structured knowledge questionnaire

Multiple choice questions were used to assess the knowledge regarding emergency drugs among staff nurses. It consists of 30 items for right answer score was one and wrong answer score was zero. The total score was 30.

Scoring of the Tool

Level of Knowledge	Score	Percentage
Poor Knowledge	0-10	<33%
Average Knowledge	11-20	34-69%
Good Knowledge	21-30	70-100%

PROCEDURE FOR DATA COLLECTION

Study was conducted during the month of July 2024 in Guru Nanak Dev hospital in Amritsar. The investigator obtained the written permission for data collection from the medical superintendent of Guru Nanak Dev Hospital and participants. Purposive sampling technique was used to select total 60 samples in that 30 for control group and 30 for experimental group. For pretest, tools such as socio-demographic variables and structured knowledge questionnaire were assessed for both control and experimental group. After pretest structured teaching program regarding emergency drugs was given only to experimental group. After 7 days posttest was conducted with same tools for both control and experimental group. The data was analyzed by using descriptive and inferential statistics.

RESULTS AND DISCUSSION

Major Findings:

- According to their age in Experimental group majority 14(46.7%) were in 25- 30 years of age, 7(23.3%) were in 21-25 years of age, 5(16.7%) were in 30-35 years of age and 4(13.3%) were in more than 35 years of age. In control group maximum 11(36.7%) were in 25-30 years of age, 10(33.3%) were in 21-25 years of age 6(20%) were in 30-35 years of age and 3(10%) were in more than 35 years of age.

- Regarding gender of staff nurses, in experimental group majority 25(83.3%) were female nurses and few 5(16.7%) were male nurses. In control group majority 27(90%) were female nurses and few 3(10%) were male nurses.
- As per educational level of staff nurses, in experimental group maximum 23(76.7%) had B.Sc. or Post Basic Nursing and 7(23.3%) had GNM. In control group maximum 20 (66.7%) had B.Sc. or Post Basic Nursing and 10(33.3%) had GNM.
- With regard to experience of staff nurses, in experimental group majority 10(33.3%) had 1-3 years of experience, 8(26.7%) had 3-5 years of experience, 7(23.3%) had more than 5 years of experience and 5(16.7%) had below 1 years of experience. In control group 11(36.6%) had 3-5 years of experience, 9 (30%) had 1- 3 years of experience, 5 (16.7%) had 0-1 years of experience and above 5 years of experience.
- In the aspect of area of working, in experimental group majority 14 (46.6%) of staff nurses were posted in general ward, 8(26.7%) in ICU, 5(16.7%) in OT and 3(10%) in Emergency. In control group majority 15(50%) of staff nurses were posted in general ward, 6(20%) in ICU, 5(16.7%) in Emergency and 4(13.3%) in OT.

Objective 1: To assess the pretest level of knowledge among the control group and experimental group of staff nurses.

The results of present study showed that in control group during pretest majority 19(63.3%) had poor knowledge and 11(36.7%) had average knowledge where as in experimental group maximum 18(60%) had poor knowledge and 12(40%) had average knowledge. (Fig. 1)

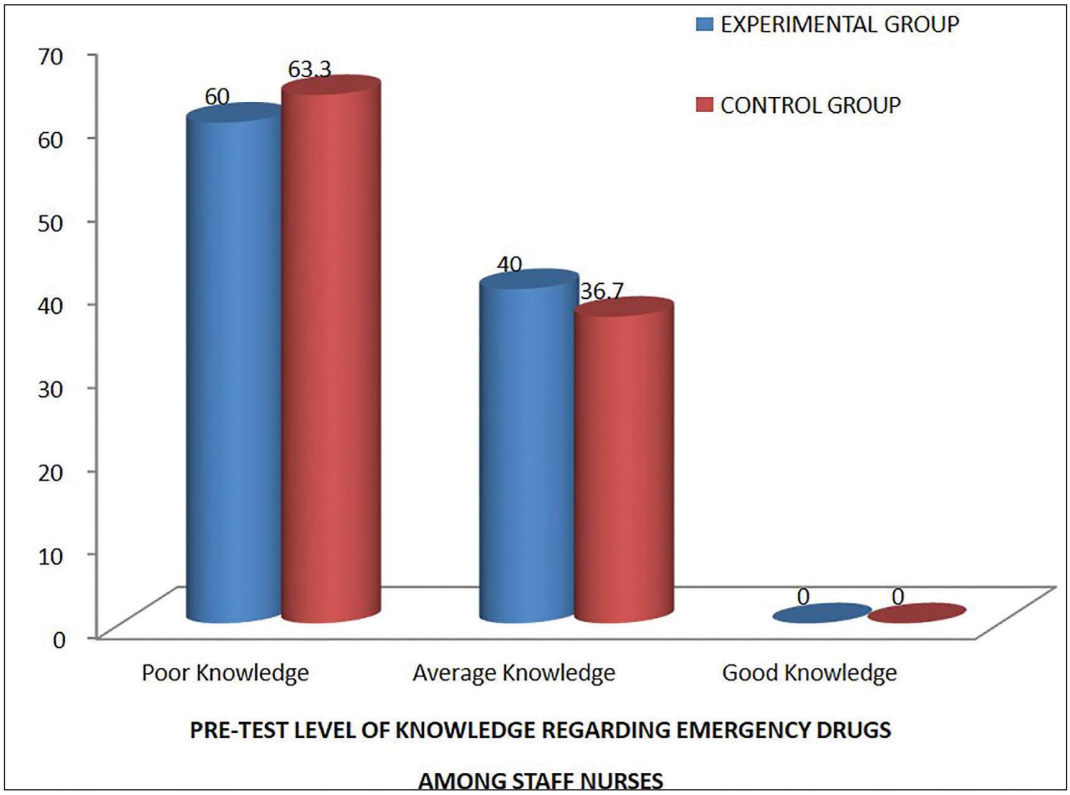

Fig 1: Pre-test level of knowledge regarding emergency drugs among staff nurses in Experimental and control group

Objective 2: To assess the posttest level of knowledge among the control group and experimental group of staff nurses.

Results of present study revealed that in experimental group during posttest majority 23(76.7%) had good knowledge and 7(23.3%) had average knowledge where as in control group majority 17(5.7%) had poor knowledge, 13(73.3%) had average knowledge and no one have good knowledge. (Fig. 2)

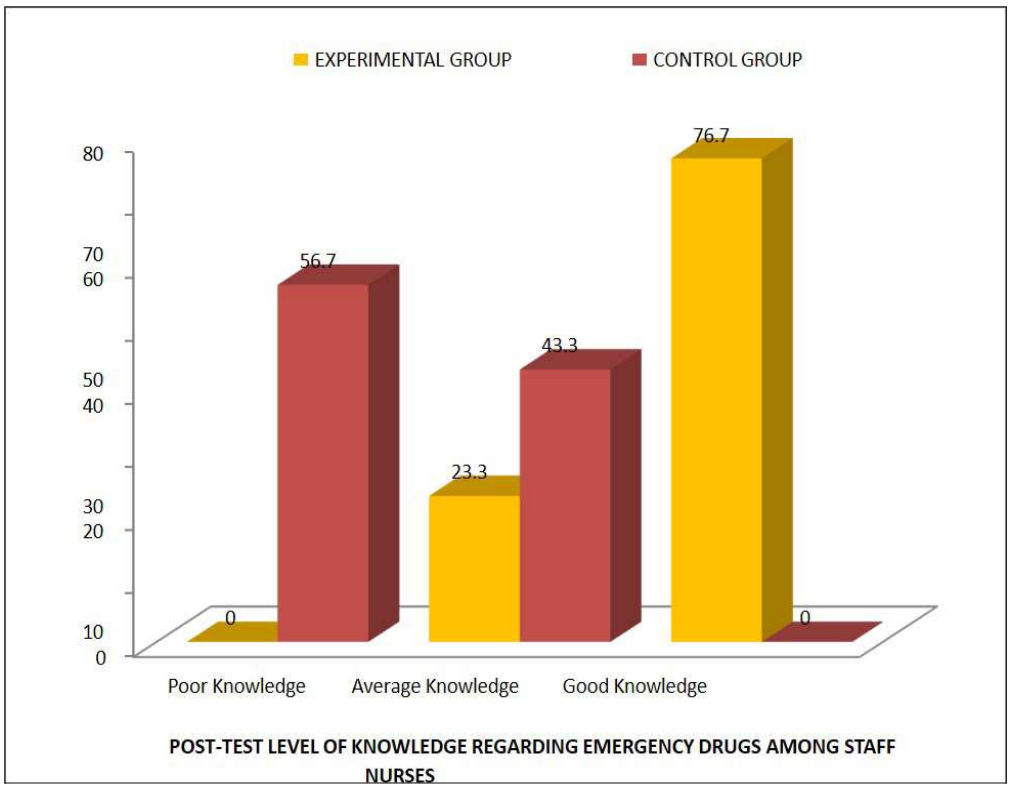

Fig 2: Post-test level of knowledge regarding emergency drugs among staff nurses in Experimental and control group

Objective 3: To compare pretest and post level of knowledge between control and experimental group of staff nurses

Result on pre-test revealed that in experimental group mean score was 13.13±3.81 and in control group was 12.73±3.75 with mean difference of 0.40 with obtained test value (t=0.992 at df=58, p=0.325) was non-significant. Result on post-test revealed that in experimental group mean score was 27.63±2.66 was higher than mean score of control group 13.83±3.18 with mean difference of 13.80 with obtained test value (t=14.0 at df=58, p=0.001) was statistically significant. Hence H_1 hypothesis accepted. Findings showed that structured teaching program was effective in improving the knowledge regarding emergency drugs among staff nurses in Experimental group as compared to control group. (Table 1)

Table 1: Comparison of pre-test and post-test level of knowledge regarding emergency drugs among staff nurses in experimental and control group

n1=30; n2=30

Comparison	Experimental group Mean±SD	Control group Mean±SD	Mean D	t value	df	p value
Pre-test	13.13±3.81	12.73±3.75	0.40	0.992	58	0.325^{NS}
Post-test	27.63±2.66	13.83±3.18	13.80	14.90	58	**0.001***

***P<0.05 level of significance, NS-Non significance**

Objective 4: To assess the effectiveness of structured teaching program among experimental groups.

Result revealed that post-test mean score was 27.63±2.66 which was higher than pre-test mean score 13.13±3.81 with mean difference of 14.50 with obtained test value (t=21.39 at df=29, p=0.001) was highly significant. Hence H_1 hypothesis accepted. Findings showed that structured teaching program was effective in improving the knowledge regarding emergency drugs among staff nurses in Experimental group. (Table 1)

Objective 5: To find out association between posttest knowledge with their selected demographic variables of experimental groups.

Result revealed that age, gender, qualification, experience and area of working were found to be non-significant with post-test level of knowledge regarding emergency drugs among staff nurses in experimental group. Hence H_2 hypothesis rejected. (Table 2)

Table 2: Association between post-test level of knowledge regarding emergency drugs among staff nurses with their selected demographic variables in experimental group

N=30

Demographic variables	Post-test		$\chi 2$ value	df	P value
	Average knowledge	Good knowledge			
Age in years					
21 – 25 years	1	6	2.529	3	0.470^{NS}
25 – 30 years	4	10			
30 – 35 years	2	3			
> 35 years	0	4			
Gender					
Male	0	5	1.826	1	0.17^{7NS}
Female	7	18			
Qualification					
GNM	2	5	0.140	1	0.708^{NS}
B.Sc. Nursing	5	18			
Experience					
Below 1 year	1	4	3.727	3	0.293^{NS}
1-3 years	4	6			
3-5 years	2	6			
>5 years	0	7			
Area of working					
General Ward	2	12	1.597	3	0.660^{NS}
ICU	2	6			
OT	2	3			
Emergency	1	2			

***p<0.05 level of significance** **NS - Non significant**

DISCUSSION

The study findings are congruent with the study conducted by Rajendra D Lamkhede (2014)[6] to assess the effectiveness of planned teaching program (PTP) on knowledge of emergency drugs among staff nurses working in critical care units in selected hospitals at Mangalore. Finding revealed that, majority of respondents 70% had only average knowledge whose percentage of score ranged between (35-70). Only 10% of the respondents had good knowledge (70-100) and 20% of the respondents had poor knowledge (0-35) regarding emergency drugs. The knowledge score of staff nurses on emergency drugs in pre-test and post-test which reveals that, post-test mean knowledge

score found higher 87.73% (43.67) and SD of 4.13, when compared with pre-test mean knowledge score value which was 52% (26) with SD of 6.98. The mean effectiveness score was 35.73% with SD of 2.80. It reveals that, there is a significant increase in the knowledge of staff nurses after administration of PTP. Hence, a finding shows the effectiveness of PTP.

Findings are consistent with a study conducted by Nisha Mane (2023)[7] to assess the knowledge of staff nurses regarding selected emergency drugs. 100 staff nurses from Hospital in Mumbai were interviewed to assess knowledge regarding selected emergency drugs among staff nurses. A non-experimental descriptive survey method exploratory in nature was conducted using a semi structured questionnaire which includes demographic data, multiple choice questions assessing knowledge about action, route, side effects, nurses' responsibility regarding selected emergency drugs. Majority of staff nurses were able to answer about nurses' responsibility but have average knowledge about the action and side effects. Study found that overall interpretation of knowledge in relation to nursing responsibility of medication administration shows 70% staff nurses have knowledge. Hence, continuing Education has to be increased for poor knowledge regarding emergency drugs which will prevent occupational hazard.

CONCLUSION

The results revealed that in control group, posttest majority 17(56.7%) had poor knowledge where as in experimental group, posttest majority 23(76.7%) had good knowledge. It concluded that structured teaching program was very effective in improving the knowledge regarding emergency drugs among staff nurses.

IMPLICATIONS

The study has certain implications for the nursing profession in the field of nursing practice, education, administration and nursing research.

Nursing education:

- Nurse educator can prepare the students in order to give importance of teaching program on emergency drugs by using different teaching aids.

Nursing practice:

- Nurse must require adequate knowledge that would help to improve the practice skill of the nurses regarding emergency drugs for patients safety.

Nursing administration:

- Nurse administrator should take interest in motivating the nursing personnel to improve their professional knowledge, skills by attending the workshops, conference, seminar and training program on emergency drugs.

Nursing research:

- The findings of the present study are helpful for the nursing professionals to conduct further studies to find out the effectiveness of various methods of providing education on improving the knowledge regarding emergency drugs among other people.

RECOMMENDATIONS

- A study can be conducted on a large sample size.
- The study can be carried out at different settings.
- A study can be conducted to assess the practice of emergency drugs among nurses.

ACKNOWLEDGEMENT

I would like to acknowledge the study participants for their cooperation and responses. My sincere thanks to all those who have helped me directly and indirectly for the successful completion of this study.

Conflict of interest

This study is self-funded research work. So, there is no conflict of interest.

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