



ORIGINAL RESEARCH PAPER

Nursing

EFFECTIVENESS OF EDUCATIONAL PROGRAMME ON KNOWLEDGE REGARDING SELECTIVE VASOACTIVE AND INOTROPIC DRUGS AMONG STAFF NURSES WORKING IN ICU'S, SDM HOSPITAL DHARWAD

KEY WORDS:

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ABSTRACT

Introduction: Administration of emergency drugs plays a vital role in saving life in all critical situations, where by these drugs help to restore a person's life, and thus helps to maintain a hemodynamic state. The nurse is in a unique position regarding drugs therapy, because when drugs are administered the body begins a sequence of processes designed to handle the new chemicals. Understanding how drugs act on the body to cause changes and applying that knowledge in the clinical setting are important aspects of nursing practice .Knowing the background, the study undertaken to evaluate the effectiveness of educational programme on knowledge regarding selective vasoactive and inotropic drugs among staff nurses working in ICU's, SDM Hospital Dharwad "to help the staff nurses to enhance their knowledge on these selective vasoactive and inotropic drugs.

Materials and Method: The research design selected for this study was Pre- experimental one group pre and post-test research design. Non probability, Purposive sampling technique was adapted to select the samples for this proposed study.10 samples were selected from each ICU's. In the present study structured knowledge questionnaire was used by the investigator to assess the knowledge of staff nurses on pharmacodynamics of selective vasoactive and inotropic drugs.

Results: Study revealed that, there was a significant difference between the posttest knowledge score of staff nurses on pharmacodynamics of selective vasoactive and inotropic drugs. Since the calculated t value (t= 5.8) was significantly higher than table value (t=1.68) at 0.05 level of significance.

Conclusion: The findings of the study showed that educational programme on was effective in increasing knowledge of staff nurses regarding pharmacodynamics of selective vasoactive and inotropic drugs.

INTRODUCTION:

Knowledge will bring you the opportunity to make a difference

-Claire Fagin-

A nurse as a professional assumes responsibility and accountability for all nursing care delivered. Each registered nurse is accountable for one's own action and practice. Where administration of Medicine is a basic activity in nursing practice. Being a nurse in an intensive care unit entails caring for seriously ill patients. Becoming proficient requires accuracy, practice and precaution that are illustrated by how critical care nurses learn to manage work and apply their knowledge in the clinical area while handling the critical patients.

Administration of emergency drugs plays a vital role in saving life in all critical situations, where by these drugs help to restore a person's life, and thus helps to maintain a hemodynamic state. The nurse is in a unique position regarding drugs therapy, because when drugs are administered the body begins a sequence of processes designed to handle the new chemicals.

Vasoactive drugs have been used to treat the hemodynamic changes associated with shock for over 40 years, the therapy is used to manipulate the relative distribution of blood flow and restore tissue perfusion. Critical care nurses often manage and administer these potent drugs after medical advice from physician Another group of life saving drugs used in emergency are inotropes. These drugs increase cardiac performance and thereby improve cardiac output .These are the agents that alters the force or energy of muscular contractions.

So nurses must be knowledgeable about the vasoactive and inotropic drugs and method of administration. Nursing expertise for drug administration vary according to experience educational level and the knowledge regarding evidence based practice. Medication errors and the reactions caused, results in increased length of stay, cost, patient disability, and death. These include harm to the nurse involved, in regard to his or her personal and professional status, confidence, and practice. To ensure safe and effective drug therapy for patients, nurses need to be familiar with the indications, customary dosage, and intended effects and side effects of prescribed drugs.

STATEMENT OF THE PROBLEM

"A study to evaluate the effectiveness of educational programme on knowledge regarding selective vasoactive and inotropic drugs

among staff nurses working in ICU's, SDM Hospital Dharwad".

OBJECTIVES OF THE STUDY:

- Assess the existing level of knowledge of staff nurses on selected vasoactive and inotropic drugs.
- Determine the effectiveness of educational programme on selected vasoactive and inotropic drugs.
- Find an association between pretest knowledge score of staff nurses regarding vasoactive and inotropic drugs and selected demographic variables.

HYPOTHESIS

- Hypotheses will be tested at 0.05 level of significance.
- H₁: The mean post test knowledge scores of staff nurse on selected vasoactive and inotropic drugs will be significantly higher than their mean pre test knowledge scores.
- H₂: There will be a significant association between pre test knowledge score of staff nurse and selected demographic variable

MATERIALS AND METHOD

The conceptual framework for the present study is developed from king's goal attainment theory. A research design was Pre-experimental one group pre and post-test research design to evaluate the effectiveness of structured educational programme on pharmacodynamics of selective vasoactive and inotropic drugs. The present study was conducted in Intensive Care Units (medical, surgical, neuro, cardiac) of SDM tertiary care teaching Hospital, Dharwad. Purposive sampling technique was adapted to select the samples for this proposed study.10 samples were selected from each ICU's.Data collection was done using structured knowledge questionnaire, which consisted of 2 sections. These included:

- **Section 1** : Questions on demographic Proforma of the participants which are Age, Gender ,Educational Qualification ,Years of experience and Previous source of information.
- **Section 2:** Questionnaires on pharmacodynamics of selective vasoactive and inotropic drugs

It consisted of 30 questions, which included questions on pharmacodynamics (chemical composition, mechanism of action, dosage, desired actions, duration of action, side effects and nurses responsibilities) of selected vasoactive and inotropic drugs.

In order to obtain content validity, the prepared instrument along with problem statement, operational definitions and blue print were submitted to 7 experts from the field of medical surgical

nursing, a expert from pharmacology department and an expert from medicine department. The reliability of the tool was established by using test-re test (Karl Pearson's correlation coefficient). Prior permission was obtained from Institutional Ethical Committee of SDM Institute of medical sciences. Formal permission was obtained from the authorities. Written consent was obtained from the subjects to participate in the study. On the first day pre-test was done for the group. On the next day structured educational programme regarding selective vasoactive and inotropic drugs was administered to the group for 1 hour.

Followed by posttest on the seventh day of intervention using the same tool as the pretest. Data was analyzed using descriptive and inferential statistics.

RESULTS:

Description of participant's characteristics

Indicates maximum 19(47.5%) respondents were in the age group of 21-25years. Majority of the respondents 31(77.5%) were females. 30 (75%) of respondents had GNM as their educational qualification. Maximum of 28(70%) received previous source of information by attending service educational programme. Majority of 15(37.5%) had 2-3 year of experience.

Findings of Distribution of knowledge scores:

n=40

Knowledge	Pre test		Post test	
	Frequency	Percentage	Frequency	Percentage
In adequate knowledge	11	27.5%	0	0%
Moderate knowledge	29	72.5%	1	2.5%
Adequate knowledge	00	0%	39	97.5%

Findings of Paired t test compare the pre-test knowledge scores with post-test knowledge scores

n=40

Group	Mean	Std .Dv	Mean Diff	SD Diff	Paired t value	Table value
Pre test	12.6	4.14	-11.1	2.03	5.8	1.64
Post test	23.7	2.11				

*p≤ 0.05

The data presented revealed that calculated 't' value was higher than the table value that is 1.64. Thus educational programme on vasoactive and inotropic drugs was effective.

Findings of Association between socio-demographic characteristics with pretest knowledge on selective vasoactive and inotropic drugs.

The data presented in table 4 represents significant association between all the demographic variables at 0.05 level of significance. Hence the hypothesis H₀ was accepted.

DISCUSSION :

- The overall posttest knowledge scores of the subjects was greater than the overall pre test knowledge scores of samples on pharmacodynamics of selective vasoactive and inotropic drugs.
- Educational programme on pharmacodynamics of selective vasoactive and inotropic drugs has shown significant gain in the knowledge score which clearly indicated that the designed educational programme was effective.
- There was a significant association between pre test knowledge scores of samples with selected demographic variables such as age, gender, and educational qualification, previous source of information and years of experience. These findings indicated that these factors had a greater influence on Staff Nurses knowledge of pharmacodynamics of selected vaso active and inotropic drugs. Hence periodic in-service education is must for any professionals to keep their knowledge updated which prompts the administrators to

organize regular continuing nursing education programmes.

IMPLICATIONS:

The findings of the study had the following implications on,

Implications on nursing education:

The pharmacology component in education is restricted hence seminar, symposium may be organised for nursing students in gaining additional knowledge

Implications on nursing practice:

Critical care nurses should act diligently in emergency situation, thus the designed educational programme has helped them to gain adequate knowledge about pharmacodynamics of selected vasoactive and inotropic drugs.

Implications on nursing administration:

It has helped nurse administrators can educate staff nurses in pharmacology and incorporate this educational programme in providing continuing nursing education to the staffs.

CONCLUSION :

Based on the findings of the study educational programme on pharmacodynamics of selected vasoactive and inotropic drugs was effective in enhancing samples knowledge.

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