



**Effectiveness of workshop on the knowledge and practice of nurses  
regarding Intravenous fluid therapy for children in a selected hospital,  
Bangalore**

**Mr. Philip Sebastian, Lecturer**

*T. John College of nursing, Gottigere, Bangalore*

---

**ABSTRACT**

*Nurses who are able to plan and carry out nursing care with knowledge, skill and confidence are better ambassadors for their speciality. Nurses practice within a changing and evolving health care environment and therefore they are required to develop their knowledge, skill and attitude. Nurses practice is supported by knowledge that is continuously evolving and therefore must use the best available evidence to guide their practice.*

**Keywords :** Intravenous fluid therapy

---

**INTRODUCTION**

**OBJECTIVES**

1. To assess the level of knowledge among nurses regarding Intravenous fluid therapy for children
2. To assess the practice of nurses regarding Intravenous fluid therapy for children
3. To assess the effectiveness of workshop regarding intravenous fluid therapy for children
4. To find the correlation between level of knowledge score and practice score of nurses regarding intravenous fluid therapy for children
5. To find the association between level of knowledge and practice score of nurses with selected demographic variables.

**HYPOTHESIS**

H<sub>1</sub>: there will be a significant difference between the pre and post test knowledge scores of nurses following workshop.

H<sub>2</sub>: there will be a significant difference between the pre and post test practice scores of nurses following workshop.

## **CONCEPTUAL FRAMEWORK**

The conceptual framework for the present study is based on modified open system model by J.W.Kenny (1995).

The following are the major concepts of the theory.

### **INPUTS**

It means matter of energy and information from environment. The factors mentioned below in the input system were taken into consideration, for evaluating the effectiveness, bringing about a change in the knowledge and practice of the staff nurses.

In the present data input refers to target group with their;

- Personal variables
- Structured knowledge questionnaire and observation checklist
- Development of workshop material for the subjects on intravenous fluid therapy for children
- Pre test to assess the knowledge and practice regarding intravenous fluid therapy for children

### **THROUGHPUT**

Conducting workshop regarding the intravenous fluid therapy for children, among staff nurses.

Post test to assess the knowledge and practice of staff nurses regarding the intravenous fluid therapy for children.

### **OUTPUT**

Significant knowledge gain and practice change regarding the intravenous fluid therapy for children among staff nurses.

Non significant knowledge gain and practice change regarding the intravenous fluid therapy for children among staff nurses.

### **FEEDBACK**

It is the process whereby the output of the system is redirected to the input of the same system. In the present study, feedback is the reassessment of the study which is not included in the study.

## **METHODOLOGY**

An evaluative approach with pre-experimental one group pre test post test design was adopted for this study. The researcher selected 30 staff nurses, through convenient sampling technique. The researcher assessed the knowledge and practice of staff nurses regarding the intravenous fluid therapy for children by using structured questionnaire and observation checklist.

The tools used for the data collection were structured questionnaire and observation checklist. Part A of the tool consisted of demographic variables and part B consisted of structured knowledge questionnaire, and parts C consisted of observation checklist. The content validity of the tools and the workshop content was appraised by four experts. The reliability of the tools, structured questionnaire was found to be 0.83 and for observation checklist it was found to be 0.94. Pilot study

was conducted on six staff nurses and was found to be feasible.

Data collection period was from 1<sup>st</sup> May to 11<sup>nd</sup> May 2019. On the first day pretest was administered. On the next day workshop was conducted. Workshop was conducted for one day from 9am to 12 pm. This session included lecture cum discussion cum demonstration. Group is encouraged to participate in the discussion and the investigator assured the confidentiality of their identity and consent was obtained from each staff nurses. Post test was conducted after seven days following the workshop. The data collected was compiled for analysis.

### **SALIENT FEATURES OF THE STUDY**

Majority (70%) of the staff nurses were aged between 21- 25, nine (30%) were between the age of 26-30 yrs.

The study finding shows that majority (83.3%) of the staff nurses were females and the remaining (16.7%) of the staff nurses were male.

Among the staff nurses, (56.7%) were from wards, followed by (43.3%) from ICU.

According to years of experience, (93.3%) had 0-5 years of experience and only (6.7%) had more than 5 years of experience.

Most of the staff nurses (63%) had completed Basic B.Sc nursing and (37%), had done their Diploma in Nursing & midwifery.

Among the staff nurses 24(80%) have not undergone CNE programme regarding intravenous fluid therapy for children and 6(20%) have undergone CNE programme.

### **FINDINGS RELATED TO KNOWLEDGE AND PRACTICE OF THE STAFF NURSES**

- In pre test majority 56.7% of the staff had average knowledge regarding intravenous fluid therapy for children, 36.7% of the staff nurses had poor knowledge score and 6.6% of the staff nurses had good knowledge score. However following the workshop it has been seen that majority 63.3% of the staff nurses had good knowledge score and 36.7% of the staff nurses had average knowledge score.
- The mean post test knowledge score (24.5) of staff nurses who were exposed to workshop was higher than the mean pre test knowledge score (16).
- The t value ( $t_{29}=10.5006$ ) was found to be significant at 0.001 level of significance.
- In pre test majority 83.3% of the staff had average practice score regarding intravenous fluid therapy for children, 16.7% of the staff nurses had poor practice score. However following the workshop it has been seen that 50% of the staff nurses had good practice score and 50% of the staff nurses average practice score.
- The mean post practice score 33.3% who were exposed to workshop was higher than the pre test practice score 25.1%.
- The 't' value ( $t_{29}=14.748$ ) was found to be significant at 0.001 level of significance.
- Therefore the findings of the study reveal that the conducted workshop for the staff nurses on the intravenous fluid therapy for children was effective.

**IMPLICATIONS.**

Findings of the study have implications in various areas of nursing education, nursing practice and nursing research.

**NURSING PRACTICE**

With the responsibility for improving patient care, to identify the legal implications of care and increasing accountability towards patient care, the nursing personnel need to be trained regarding intravenous fluid therapy for children. The some very important differences exist in IV therapy for children are preparation of parents and child, calculation of flow rate, veins used for infusion, equipments, procedure and methods of protecting the child and the site of infusion .The nurse has an important role and responsibility in monitoring IV therapy. The risks of IV therapy include possible fluid overload and possible complication with administration. Training in turn will help in giving comprehensive care to the child. Frequent in-service education programme can be conducted to keep nurse up to date with the latest changes taking place in the area of management and this knowledge can be used to train the newly recruited staff nurses.

**NURSING EDUCATION**

Intravenous fluid therapy for children can be incorporated in the curriculum at various levels of nursing education. The nursing students should get thorough knowledge regarding differences exist in IV therapy for children from adult.

**NURSING ADMINISTRATION**

The nursing administrator has an important role in providing continuing education and in- service education on intravenous fluid therapy for children and evaluate the effectiveness in terms of decrease in IV related complications. Nursing administrator should develop nursing practice standards, protocols and manuals regarding IV therapy for children.

Nurse administrators may utilize the present tool for assessing knowledge and practice of the nursing personnel in the ward and implement measures to improve the care of children in the ward.

**NURSING RESEARCH**

Various other methods of teaching like video presentation and simulation, based on varying interest of nursing personnel and level of education can be adopted for conducting research in this area. Nursing research need to be concentrate on the confidence level of the nursing personnel in performing IV therapy for children.

**LIMITATIONS OF THE STUDY**

- A one group pre-experimental design was used.
- Sample size was less (30).

**RECOMMENDATIONS FOR THE FURTHER STUDY**

The following recommendations were based on the result of the study:

- A large scale study can be conducted to generalize the findings.
- A study can be conducted using various methods of teaching to determine the most effective method of teaching for staff nurses to improve the knowledge and practice regarding

intravenous fluid therapy.

- A comparative study can be conducted on experimental and control group.

#### **REFERENCE**

Mettina. S. M. Lippincott Manual of Nursing Practice.8<sup>th</sup> ed. Jaypee Brothers;2006

Hockenberry.M.J.Wong's essentials of pediartic nursing.8<sup>th</sup> ed. Elsevier. India