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# Knowledge and Practice of Staff Nurses about Nursing Care of Children with Fever

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**Abstract**

Fever is a common childhood problem faced by health care personnel including doctors, nurses and others in both hospital and community settings. Children in hospital should be nursed in an environment, where staffs are knowledgeable about their nursing care. Methodology: Quasi Experimental approach was used with one group pre test and post test design. The investigator used purposive sampling technique selecting the 40 samples. A planned teaching programme on nursing care of children with fever, a structured knowledge questionnaire and structured observational checklist were prepared. Descriptive and inferential statistics were used for analysis. Result: The mean post test knowledge score 22.93 was higher than mean pre test knowledge score 16.4 with the mean difference of 6.53. The mean post test practice score 19.23 was higher than the mean pretest practice score is 11.43 with the mean difference of 7.8. The pre test and post test knowledge and practice score was statistically tested by using paired 't' test and it was found significant at both 0.05 and 0.01 level (t39 = 17.52, t39 = 17.36 respectively). Conclusion: There was significant increase in the knowledge and practice after the administration of the planned teaching programme on nursing care of children with fever. Hence it is concluded that planned teaching programme was effective in improving the knowledge and practice of the staff nurses.

**Keywords**

Tuberculosis, Knowledge, Attitude

## INTRODUCTION

Many infants and children develop high fevers with minor viral illnesses. Several methods have been recommended to reduce fever in children, which include tepid sponging, fanning, alcohol sponging and antipyretics. However, the nursing management of fever in children is often not based on research and remains inconsistent in practice.

## NEED FOR THE STUDY:

Fever is a common encounter in hospitalized patients and can cause morbidity and mortality in critically ill patients. Fever is an integral aspect of care. For its consistent rational, nurses must have appropriate knowledge regarding this important subject. However, a number of studies have reported that their knowledge about the subject is insufficient. This study was undertaken to assess the effect of training given to the nurses on knowledge and practice in management of fever **(Libyan J. 2010).** Investigator has observed many cases of children with complain of fever during clinical experience. There are 10 to 15 children come with complain of fever each day in government hospitals. There is also lack of knowledge and practice regarding tepid sponge and nursing care of children suffers from fever due to any infection. If the appropriate care is not given to those children, they might have further complications due to fever.

## STATEMENT OF THE PROBLEM

"A study to Assess the Effectiveness of a Planned Teaching Programme on Nursing Care of Children with Fever in Terms of Knowledge and Practice of Staff Nurses working in Pediatric Medical Units of the Selected Medical College attached Government Hospitals of Gujarat State"

## OBJECTIVES OF THE STUDY:

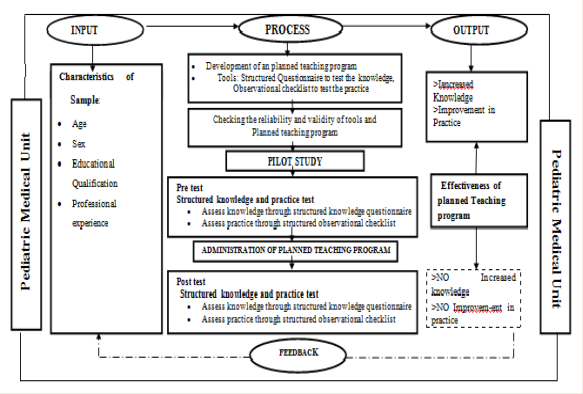
- To assess the knowledge of staff nurses before and after administration of a planned teaching programme on nursing care of children with fever in selected pediatric medical unit of selected government medical college attached hospitals of Gujarat state.
- To assess the practice of staff nurses before and after administration of a planned teaching programme on nursing care of children with fever in selected pediatric medical unit of selected government medical college attached hospitals of Gujarat state.

## HYPOTHESES:

$H_1$:The mean post-test knowledge scores of staff nurses will be significantly higher than their mean pre-test knowledge score

after the administration of planned teaching program on nursing care of children with fever as evident from the structured knowledge questionnaire at 0.05 level of significance.

$H_2$: The mean post-test practice scores of staff nurses will be significantly higher than their mean pre-test practice score after the administration of planned teaching program on nursing care of children with fever as evident from the structured observational checklist at 0.05 level of significance.




Conceptual Frame Work Based On General System Model, WHO, SEARO Technical Publication

**Methodology**

**Research approach:** Quasi Experimental approach.

**Research design:** One group pre-test and post-test design was selected for present study

**Variables:**

**Independent Variable:** Planned Teaching Programme on Nursing Care of Children with Fever

**Dependent Variable:**

- Knowledge of the Staff Nurses about Nursing Care of Children with Fever
- Practice of the Staff Nurses about Nursing Care of Children with Fever.

**Research Setting:** This study was conducted in the Pediatric Medical Units of six selected Government Medical College attached Hospitals of Gujarat State.

**Target Population:** Target population consisted of all the Staff Nurses working in selected setting.

**Criteria for sample selection**

1. Samples working in the Pediatric Medical Units of the selected Government Medical College attached Hospitals of Gujarat State.
2. Samples those are willing to participate in the study.
3. Availability of staff nurses during study period.
4. Samples those had at least 3 months of experience in the Pediatric Medical Unit.

**Preparation of Lesson Plan**

Knowledge portion of Nursing Care of Children with Fever. The topics included were Definition of Fever, Types, Causes, Signs and Symptoms, Assessment and Medical Treatment, Nursing care of children with fever. Lecture cum discussion was adopted as the method of teaching along with poster and flash cards.

Practice portion of Tepid Sponge. The topics included were purpose of tepid sponge, Preliminary assessment, Preparation of the patient, Articles required, Steps of procedure and the after care of the patient, unit and articles. Demonstration cum discussion with return demonstration was used as the method of teaching along with patient as audio visual aids.

**Development of Structured Knowledge Questionnaire**

Structured Knowledge Questionnaire focused on main 3 areas such as Fever, Assessment and Medical Treatment and Nursing Management. The three main area were further divided in to further subareas such as Definition of fever, Types of fever, Causes of fever, Signs, Assessment of child, Medical Treatment, Nursing Management and Prevention. Total 30 items were formulated from all areas and subareas. For assessing knowledge of samples by the Structured Knowledge Questionnaire paper pencil technique was used.

**Development of Structured Observational Checklist**

Structured Observational Checklist focused mainly on the procedure of Tepid Sponge. It was divided into 4 main areas such as Pre procedure phase, Performance phase, Aftercare phase and Documentation. Total checklist of 30 items was formulated. For assessing practice of samples by the Structured Observational Checklist non participatory observational technique was used.

**Plans for Data Analysis**

The Investigator planned to analyze the data in the following manner:

Personal data to be analyzed using frequency and percentage and will be presented in the form of the tables. The data from Structured Knowledge Questionnaire and Structured Observational Checklist before and after administration of Planned Teaching Program will be analyzed using mean, Standard Deviation (SD) and 't' test and presented in the form of tables and graphs.

**Findings:**

1. Analysis and Interpretation of the Personal Data of the samples such as age, sex, educational qualification, work experience in Pediatric Medical Unit in terms of frequency and percentage.

**Frequency and Percentage wise Distribution of Samples: Age, Sex, Educational qualification, Work experience in the Pediatric Medical Units**

| Personal data | Frequency | Percentage (%) |
|---|---|---|
| **Age** | | |
| 21-30 years | 19 | 47.5 |
| 31-4oyears | 10 | 25 |
| 41 years and above | 11 | 27.5 |
| **Sex** | | |
| Female | 39 | 97.5 |
| Male | 1 | 2.5 |
| **Education** | | |
| General nursing and | 36 | 90 |
| midwiferary | 4 | 10 |
| Post basic B.SC. | --- | --- |

| | | |
|---|---|---|
| Nursing<br>Basic B.SC .Nursing<br>Others | --- | --- |
| **Experience of working in Pediatric Medical Unit**<br>< 1 year<br>1 years to 2 years<br>2 years to3 years<br>3 years to4 years<br>More than 4years | ---<br>04<br>09<br>13<br>14 | ---<br>10<br>22.5<br>32.5<br>35 |

## Findings related Percentage distribution of Personal data of samples

As regards to the age of the subject majority of the 19 (47.5%) of the sample was in the age group of 21-30 years and 39 (97.5%) was female. Professional qualification of samples indicates that majority of G.N.M. sample was found that 30 (90%) and 14 (35%) of the sample had more than 4 years of experience in Pediatric Medical Unit.

2. Analysis and Interpretation of the data related to the Knowledge of the samples before and after administration of a Planned Teaching Programme

**Area wise mean, mean percentage, standard deviation (SD), mean difference and percentage gain of pre test and post test knowledge scores of samples [N=40]**

| Areas | Max score | Pre test | | | Post test | | | % gain | Mean difference |
|---|---|---|---|---|---|---|---|---|---|
| | | Mean score | Mean % | SD | Mean score | Mean % | SD | | |
| Fever | 8 | 4.85 | 60.6 | 1.2 | 6.23 | 77.88 | 0.8 | 17.3 | 1.38 |
| Assessment & Medical Treatment | 8 | 3.85 | 48.1 | 1.6 | 5.95 | 74.38 | 1.2 | 26.3 | 2.1 |
| Nursing management | 14 | 7.68 | 54.85 | 1.9 | 10.8 | 77.14 | 1.8 | 22.3 | 3.05 |
| Total | 30 | 16.38 | -- | -- | 22.98 | -- | -- | -- | 6.53 |

**Mean, mean difference, standard deviation (SD) and 't' test value of Pre-test and post-test Knowledge scores of samples [N=40]**

| Knowledge Test | Mean | Mean Difference | S.D | Calculated 't' test |
|---|---|---|---|---|
| **Pre-test** | **16.4** | **6.53** | **3.33** | **17.52** |
| **Post-test** | **22.93** | | **2.1** | |

**(Note: * t = 1.68, P <0.05, df =39 and ** t = 2.71, P <0.01, df =39)**

## Findings related to knowledge of Samples in relation to Nursing Care of Children with Fever

The mean post-test knowledge score 22.93 was higher than mean pre-test knowledge score 16.4 with the mean difference of 6.53. The mean post-test knowledge score is significantly higher than the mean pre-test knowledge score with the mean difference of 6.53 and the calculated't' value (t =17.52) is greater than tabulated 't' value (t =1.68) which was statistically proved. Therefore the

null hypothesis $H_0$ is rejected and research hypothesis $H_1$ is accepted. It revealed that the Planned Teaching Programme was effective in terms of knowledge among the sample.

3. Analysis and Interpretation of the data related to the Practice of the samples before and after administration of a Planned Teaching Programme

**Area wise mean, mean percentage, standard deviation (SD), mean difference and percentage Gain of pre-test and post-test practice scores of samples**

| Areas | Max score | Pre test | | | Post test | | | Percentage gain | Mean difference |
|---|---|---|---|---|---|---|---|---|---|
| | | Mean score | Mean percentage % | SD | Mean score | Mean percentage % | SD | | |
| Pre procedure phase | 4 | 1.25 | 31.3 | 1.03 | 3.18 | 79.5 | 1.08 | 48.3 | 1.93 |
| Performance phase | 18 | 6.73 | 37.4 | 1.48 | 8.73 | 48.5 | 1.35 | 11.1 | 2.00 |
| Aftercare phase | 5 | 2.58 | 51.4 | 0.84 | 4.75 | 95 | 0.49 | 43.6 | 2.18 |
| Documen-tation | 3 | 0.83 | 27.3 | 0.59 | 2.58 | 86 | 0.64 | 58.7 | 0.83 |
| Total | 30 | 11.39 | | | 19.24 | | | | 6.94 |

**Mean, mean difference, standard deviation (SD) and 't' test value of Pre-test and post-test practice scores of samples**

**[N=40]**

| Practice Test | Mean | Mean Difference | S.D | Calculated 't' test |
|---|---|---|---|---|
| Pre-test | 11.43 | 7.8 | 2.45 | 17.36 |
| Post-test | 19.23 | | 2.26 | |

**(Note: * t = 1.68, P<0.05, df = 39 and ** t = 2.71, P<0.01, df = 39)**

## Findings related to the practice of Samples in providing tepid sponge

The mean post-test practice score 19.23 was higher than the mean pre-test practice score is 11.43 with the mean difference of 7.8. The mean post-test practice score is higher than the mean pre-test practice score with the mean difference of 7.8 and the calculated 't' value (t =17.36) is greater than tabulated 't' value ( t =1.68) which was statically proved and it revealed that a Planned Teaching Programme on Nursing Care of Children with Fever is effective in terms of practice among the samples.

## CONCLUSIONS

Major conclusions of the study are:

1) Knowledge deficit existed in all the area of Nursing Care of Children with Fever.

2) Samples gained significant knowledge and enhance the practice after exposed to Planned Teaching Programme.

3) The Planned Teaching Programme on Nursing Care of Children with Fever is an acceptable and usable method of teaching Staff Nurses.

**Implication and Utilization of the Study**

The findings of the study have definite implications on Nursing Practice, Nursing Education, Nursing Administration and Nursing Research.

**Nursing Practice:**

In the management of children with fever the nurse plays a vital role. The findings of study reveal that Staff Nurses have lack knowledge as well as skills in performing tepid sponge. The study finding can be used to bring out awareness among the Staff Nurses regarding the need for developing skill in assessment and nursing care of children with fever, who are hospitalized. There is much scope for improving nursing care in management of febrile children as there are number of causes of fever.

**Nursing education:**

Today demands of consumers are quality assurance care. Every profession has to satisfy this demand and nursing is no exception to it. Only through standard education can there be a standard practice. The result of the study can be used by nursing teacher as an informative illustration for nursing student. For Student Nurses, more stress can be given to the importance of assessment and care of febrile child, those include temperature monitoring, finding cause of fever, drug management and nursing care.

**Nursing Research**:

The result of the study contributes to the body of knowledge of nursing. In future, the Investigators can use the findings and the methodology as reference material. It highlights the areas that require future exploration. Other researchers, conducting further studies in the same field, can utilize the suggestions and recommendations.

**Nursing Administration:**

The findings of the study reveal the need to conduct an ongoing In Service Education programme for the Staff Nurses who are working in the Pediatric Medical Unit. The "In Service Education programme" should include both theoretical and practical input. This can also bring awareness among nurse administrators for need to provide training to new Staff Nurses regarding working with children in Pediatric Medical Unit. Nurse administrator can prepare a new protocol for performing care to hospitalized children.

**Recommendations for further study:**

1. An exploratory study can be conducted to find out the factors that hinder the nurses in providing quality care to hospitalized child.
2. An exploratory study can be conducted to find out the factors that can cause fever in most of children below 5 years.

3. A comparative study can be conducted to find out the effect of different teaching methods in improving knowledge and practice of nurses.

4. A similar study can be replicate on large sample covering the different departments of the hospitals.

5. A similar study can be done by giving more emphasis on the tepid sponge only.

6. A comparative study can be conducted to find out the nursing care of children with fever in Government Medical College attached hospital and in private hospital of the Gujarat State.

7. A study can be done by taking nursing students as a samples and find out their knowledge and practice on Nursing Care of Children with Fever.

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