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Research Article

A Study to Evaluate the Effectiveness of Planned Nursing Intervention on Prevention of Febrile Fits in Terms of Knowledge and Practice Among Mothers

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Abstract: A study to evaluate the effectiveness of planned nursing intervention on prevention of febrile fits in terms of knowledge and practice among mothers of children with fever. A quantitative evaluative research approach was used and the research design adopted for the study was pre-experimental one group pre-test post-test design. The Conceptual framework used in this study was Imogene King's Goal Attainment Theory. Fifty samples were selected by non-probability convenient sampling technique. Structured interview schedule and observational comprehensive checklist was used to assess the knowledge and practice respectively. Planned nursing intervention includes lecture cum demonstration of prevention of febrile fits. The Duration for the Planned nursing intervention was one and half hour. The findings show the mean pretest score percentage of knowledge on general information about febrile fits was 46.6% and the post-test mean score percentage was increased to 65.66%. The mean pretest knowledge score percentage of prevention of febrile fits was 49.3% and the post-test mean score percentage was increased to 68.83% respectively. There was significant association between mean pre-test practice scores on prevention of febrile fits among samples with their selected demographic variables. Hence the researcher concluded that knowledge and practice was increased after the intervention. The study implicates the effectiveness of Planned Nursing Intervention it will help the healthcare providers in various healthcare setting to get an idea about the importance of health education to the mothers of children and continuing nursing education programme or Inservice education programme for health professional regarding prevention of febrile fits is also recommended.

Key words: prevention of febrile fits, knowledge and practice, mothers of under five children.

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INTRODUCTION: A Child may have a febrile seizure within the first few hours of the high rise in temperature. The International League against epilepsy (ILAE) define febrile seizure as a seizure occurring in childhood after one month of age, associated with a febrile illness not caused by an infection of the central nervous system.

Febrile fits occurring in association with fever in children between one months to 6 years of age, in whom there is no evidence of intracranial pathology or metabolic derangement. The child may stare ahead for a few moments followed by stiffening twitching. The child may also become unresponsive for a short time. After the seizure, the child usually returns to normal quickly. Febrile seizures are caused by fever, which itself may be due to any reason such as viral fever, sore throat, ear infection or any other infection. The frequency of febrile fits in United states between 2-5% of children have febrile seizure by their 5th birthday. A similar rate is found in western Europe, the incidence elsewhere in the world varies between 5-10% for India, 8.8% for Japan, 0.5-1.5% for China. A study was conducted at Department of Paediatrics, University of Calgary, Alberta on parental anxiety regarding febrile seizure. The findings shows that Febrile seizure can reappear, and as it often is a frightening and anxiety-provoking event for parents and caregivers, an understanding of the natural history and prognosis should enable the physician to reassure the parents providing an appropriate counselling and reassurance. When parents witness a febrile seizure in their child, it may provoke strong anxiety and fear.

A study conducted in Bangladesh, Jamaica and Pakistan under the objective to estimate the prevalence of childhood seizure reported that prevalence of febrile convulsions ranged from 10.9 to 62.8 per 1000 child population. Findings from another research show that in India, the prevalence of febrile convulsion is 5.59 percent of the population. Gender, history of illness in one's family, and viral infections top the list of causes of febrile seizures. Research at Denmark's Arhus University Hospital's department of paediatrics found that the likelihood of recurrent febrile convulsions differed depending on the age at which the first convulsion occurred and the existence of a family history of convulsive disorders.

A study was conducted in the Africa among the mothers in a rural community in Northwestern Nigeria revealed that Baseline knowledge and home practice of febrile convulsion was grossly inadequate amongst the mothers. Pre-hospital treatment of childhood seizures in Nigeria comprises mainly harmful traditional practices. There is a need for appropriate health education to reduce the morbidity and mortality associated with febrile seizures in the locality. Additionally, Study conducted in Korea results indicated that the knowledge, education, attitudes toward, and actual experiences of FCs were related to FC practices. Some study findings provide important evidence to develop interventions targeting childcare providers.

Also, recent research Studies suggest that organizing parental support groups and effective educational intervention programs for parents should be given priority in the care of children with Febrile Seizure.

STATEMENT OF THE PROBLEM: A study to evaluate the effectiveness of planned nursing intervention on prevention of febrile fits in terms of knowledge and practice among mothers of children with fever.

OBJECTIVES:

(1) To prepare and validate the planned nursing intervention on febrile fits.

(2) To assess and compare mean pre-test and post-test knowledge score on prevention of febrile fits among mothers of children with fever.

(3) To assess and compare mean pre-test and post-test practice score on prevention of febrile fits among mothers of children with fever.

(4) To determine the association between pre-test level of knowledge score among the mothers of children with their selected demographic variables. (Number of children in the family, educational status).

HYPOTHESES: (Level of significance at $p< 0.05$)

H_1: The mean post-test knowledge score on prevention of febrile fits will be higher than the mean pre-test knowledge score among samples.

H_2: The mean post-test practice score on prevention of febrile fits will be higher than the mean pre-test knowledge score among samples.

H_3: There will be significant association between pre-test level of knowledge score on prevention of febrile fits among samples and their selected demographic variables (number of children in the family, educational status).

METHODS:

A quantitative evaluative research approach with pre-experimental design was considered to evaluate the effectiveness of planned nursing intervention on prevention of febrile fits in terms of knowledge and practice among mothers of children with fever. Conceptual framework Imogene King's Goal Attainment Theory was used. After getting permission from the concern authority ethical permission the researcher started the data collection. The study was conducted at selected Hospital in India. Fifty samples were selected by adopting nonprobability convenient sampling technique based on their inclusion criteria and obtained written consent from each sample.

On day -1 the mother's knowledge were assessed individually by adopting the interview schedule and the practice was assessed by observation using the comprehensive check list. On the same day the Planned Nursing Intervention was given individually. The Planned Nursing Intervention was given for 1.30 hrs. Lecture, discussion cum demonstration method were used. Followed that doubts were clarified and mothers showed return demonstration. Post-test knowledge and practice were assessed on day-3 or on the day of discharge with the same tools.

FINDINGS: Among the 50 samples in pre-test 33 (66%) had inadequate knowledge, 16(32%) had moderate knowledge, 1(2%) had adequate knowledge regarding prevention of febrile fits in post-test 7(14%) had adequate knowledge, 29(58%) had moderate knowledge, 14(28%) had inadequate knowledge regarding prevention of febrile fits.

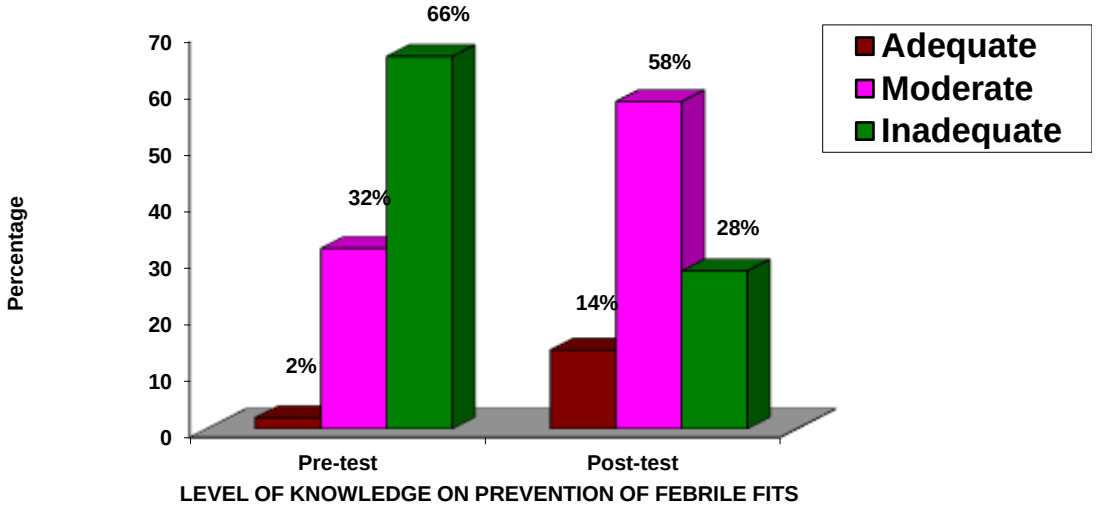

Fig-4.1: Bar diagram representation of the percentage distribution of the samples based on pre-test and post-test level of knowledge score on prevention of febrile fits.

Table-1: Distribution of mean score percentage, mean difference paired 't' value of area wise & overall mean pre-test and post-test knowledge and practice score on prevention of febrile fits

n=50

S. No	Items	Max. possible scores	Pre-test Mean score %	Post-test Mean score %	Paired mean difference	Paired 't' value
1.	Knowledge	30	47	67.2	57.6	9.6938*
2.	Practice					
	i) Axilary temperature checking	15	17.73	52.1	34.37	35.46*
	ii) Tepid sponging	13	32.76	71.5	38.74	31.071*
	iii) Administration of paracetamol suppository	9	1.33	53.11	51.78	38.01*

* significant at P<0.05 level; t_{49}=2.008

Analysis shows that overall mean percentage post-test knowledge score prevention of febrile fits was 47% (inadequate knowledge) was higher than the mean percentage pre-test knowledge score is 67.2% (moderate knowledge). The paired 't' value of knowledge was 9.6938 and the table value was 2.008 which showed it was highly significant at p<0.05 level. The practice of axillary temperature checking was 35.46, practice of tepid sponging was 31.071, practice of administration of paracetamol suppository was 33.01 and the table value was 2.008, which showed that it was highly significant at p<0.05 level. The association of mean pre-test knowledge score with selected demographic variable number of children in the family χ^2 = 16.089 is higher than the table value 9.49, educational status χ^2 = 20.106 is higher than the table value 9.49 were significant at p<0.05 level.

LIMITATIONS:

(1) Generalization of the study was limited to samples only,

(2) The samples were finding difficult to do return demonstration for all the 3 practices.

DISCUSSION: The study was assessed by to evaluate the effectiveness of Planned Nursing Intervention on prevention of febrile fits in terms of knowledge and practice among mothers of child with fever**.** Knowledge assessment of prevention of febrile fits includes 2 areas, that is general information about febrile fits and prevention of febrile fits. The overall pre-test knowledge score was 47% (inadequate knowledge). After assessing the pre-test knowledge, Planned Nursing Intervention was implemented to the samples. The post-test knowledge score was increased to 66.8% (moderate knowledge). The paired 't' value for overall knowledge score was found to be (t_{49} = 9.6938) and the table value

is (2.008). It shows that it was significant at P<0.05 level. In this association was analysed by using chi-square between pre-test level of knowledge score of the samples and their number of children and educational status The statistical findings shown to be statistically significant (χ^2 value for number of children is 16.089; χ^2 value for educational status in 20.10 respectively) at P<0.05 level. These findings shows that there is significant association between the pre-test knowledge score on prevention of febrile fits among the samples and their number of children and educational status. These results are consistent with the study Conducted by Abdulrazaq e.tal (2021) showed that, 39% of mothers had weak knowledge regarding febrile convulsion in children, 52% of mothers had medium, 9% of mothers had good knowledge regarding febrile convulsion in children. The research also reveals that there was an association between a mother's practical experience with her child with febrile convulsion and her knowledge level.

Similarly, a comparative study Conducted in Iran which includes 156 mothers, 78 patients were in the recurrence group and 78 patients were in the non-recurrence group. The questionnaire consisting of knowledge, attitude and home management questions. The mean score of knowledge in children' mothers without recurrence was higher than children' mothers with recurrence (p <0.023) The majority of mothers in both groups had a positive attitude . In this study, mothers' knowledge level is low which, in its turn, is effective in the treatment and recurrence trend of seizure. This issue highlights the necessity of educating mothers through medical centres and mass media.

Whereas in a clinical trial study, by Najimi A et al. reported significant increase in the knowledge (P < 0.001), attitude (P = 0.04) and practice (P = 0.01) in the intervention group, 1 month after intervention compared with that before intervention, while such an increase was not seen in the control group. This study confirmed the efficiency of educational interventions in improving mother's knowledge, attitude and practice regarding prevention of febrile seizure in children.
A cross-sectional study reported by Shibeeb e.tal in 2019 concluded that parents' knowledge regarding Febrile Seizure was significantly associated with higher maternal education, urban residence, and mother age. A higher level of practices was shown to have a significant association with increasing in the number of episodes experienced by parents and advancing in maternal age
The studies support that appropriate knowledge and home management of febrile convulsion is needed to lessen the parental anxiety/apprehension. Further interventions in the community are needed to sustain their knowledge and home practice of febrile convulsion. Studies suggest that Priority should be given to setting up parental support groups and successful educational intervention programs for parents in the care of kids with FS

There is an existing knowledge gap and the obvious felt need for information regarding prevention of febrile fits among mothers of children. The effectiveness of Planned Nursing Intervention it will help the healthcare providers in various healthcare setting to get an idea about the importance of health education to the mothers of children under 5 years. Nursing students should provide Health education on health promotion and right practice of prevention of febrile fits. Every student should encourage in providing information to the mothers of children and the community for the prevention of febrile fits. Nursing personnel should be oriented guided and trained in teaching techniques and methods.

CONCLUSION: The purpose of this study was to evaluate the effectiveness of Planned Nursing Intervention on prevention of febrile fits in terms of knowledge and practice among mothers of children with fever in selected hospital at Salem. The study highlights that the Planned Nursing Intervention on prevention of febrile fits was effective in terms of knowledge and practice level. Murphy et al suggested that using an effective educational method, we could reduce the anxiety of mothers and promote their practice in reading thermometer and control fever Flury et al, announced that increased knowledge of parents about febrile seizure prevention and before its incidence in children can reduce the anxiety and concern of parents.

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