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A Study to Assess the Effectiveness of Educational Package on Knowledge Regarding Prevention and Management of Febrile Seizure Among the Mother of Children Admitted in Shri Vinoba Bhave Civil Hospital, Silvassa, Dnh

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ABSTRACT

Background: Febrile seizure is condition that, occurring in children associated with fever. Febrile seizures are the most common seizures in children younger than 5 years. They are defined as a seizure accompanied by a fever of at least 100.4°F (38°C) without central nervous system infection. However, the misconception and poor knowledge of this condition could result in certain harmful home management of the condition. children within the age for febrile seizure spend most of their daytime hours with their mothers, this implies that a seizure of child may likely be first attended to by the mother, thus adequate knowledge by the mothers is important.

Aim: This study aimed to assess the effectiveness of educational package on the level of knowledge among mother of children with febrile seizure.

Methodology: A Quasi experimental design used to assess the effectiveness of educational package regarding prevention and management of febrile seizure. Non-probability convenience sampling technique was adopted to select 60 samples which was equally divided into control (30) and experimental (30) group. Pretest was conducted to both groups followed by implementation of educational package to experimental group along with routine nursing care and only routine nursing care to control group. Level of knowledge was assessed after 5 days.

Result: The analysis of the study reveals that the majority of samples belonged to the age of the mother (16) (53.3%) between 20 and 30 years in the experimental group. The majority of samples from the experiment belong to middle education (43.3%). In both groups, the majority of samples were housewives (63.3%). Regarding religion, Hindu belong to 24 (80%) of the sample. The monthly income ratios for families range from 10,000 to 15,000/- (50%). In the experimental group, the age of the child is 1-3 years (46.7%). In the experimental group, the pretest and posttest levels of knowledge mean score with standard deviation were 3.27±2.83, 14.4±2.42. In the control group, the pretest and posttest mean score with

standard deviation were 3.13±2.89, 23±2.85. The obtained t-value of experimental and control group of posttest knowledge scores was t- 16.37, at $p < 0.001$, which were highly significant at the 0.05 level of significance. Age of mother and religion were associated with knowledge scores of mothers at 0.05 level of significance.

Conclusion: The result showed that there was a significant increase in the level of knowledge among the mothers in the experimental group after the administration of the educational package intervention.

Keywords: febrile seizure, educational package, level of knowledge

INTRODUCTION

The nation's most precious resource is its children. They determine the significance of the nation. The bodies of children under five are incredibly small, and every system in them is still growing. Febrile episodes, which are comparatively common in childhood convulsions, are the primary cause of the majority of childhood seizures. Febrile seizure are fits occurring in children associated with fever. Fever is common manifestation present in most of the infections. In some children high grade fever can result convulsions. It accounts almost 50% of the seizure disorders. Under five children are more vulnerable and prone to get any kind of infection.

Febrile seizures are the most common seizures in children younger than 5 years. They are defined as a seizure accompanied by a fever of at least 100.4°F (38°C) without central nervous system infection, that occurs in children 6 through 60 months of age. Frequently perceived by parents as a life-threatening event.

NEED FOR THE STUDY:

Worldwide, 2.4 million people are thought to have been diagnosed with febrile seizures. Seventy percent of children in middle-class and low-income countries are treated with medication to prevent seizures, according to recent studies. In the nation of India, 5.59 febrile seizures occur for every 1,000 people living in 2019. There are between six and ten million people who have seizures in India. Ten percent of cases in India involve febrile seizures

The incidence rates in India are comparable to those in the developed world. The survey estimated the prevalence to be 3.28-5.71/1000 whilst the more recent Uttarakhand survey found a prevalence of 2.27 per 1000 population.

Due to inadequate knowledge regarding management and prevention of febrile seizure and to manage the emergency situation among mothers of children aged under five, the investigator wants to give awareness on home base management of febrile seizure through an educational package.

Objective:

- To assess the level of knowledge among mothers regarding febrile seizure.
- To assess the effectiveness of educational package on knowledge regarding febrile seizure among Mothers
- To associate pretest level of knowledge scores with selected demographic variables of mothers.

Hypotheses:

- **Null Hypotheses:**

H_{01}: There is no significant mean difference between pretest and posttest knowledge scores of mothers

regarding febrile seizure at 0.05 level of significance.

H_{02}: There is no association between pretest knowledge score with selected demographic variables of mothers regarding febrile seizure at 0.05 level of significance.

- **Research hypothesis**

H_1: There is significant mean difference between pretest and posttest knowledge scores of mothers regarding febrile seizure at 0.05 level of significance.

H_2: There is association between pretest knowledge score with selected demographic variables of mothers regarding febrile seizure at 0.05 level of significance.

ASSUMPTIONS

This study assumes that, knowledge is the basis of practice

♣ Mothers may have inadequate knowledge regarding febrile seizure.

♣ Educational package may be helpful to improve knowledge level among mother regarding febrile seizure

RESEARCH DESIGN/METHOD:

The research design used in the present study was **Quasi experimental design (two grouppre-test, post-test design)** The main focus of the study was to assess the effectiveness of educational package on Knowledge regarding prevention and management of febrile seizure among mother of children admitted at Shri Vinoba Bhave Civil Hospital.

A quantitative quasi experimental research design was adopted and samples were allotted in experimental group (n=30) and control group (n=30) by Convenience sampling technique. Sociodemographic and clinical variables data was collected and knowledge as assessed by Structure Knowledge questionnaires**.**

VARIABLES:

The variables included in this study are dependent variables and independent variables. Independent variables**:** In this study the educational package was independent variable. Dependent variables: In this study the knowledge was dependent variable.

In present study Demographic variables are age of the mother, education of mother, occupation, religion, family monthly income, age of child, type of family, source of health information. Clinical variables are child suffering from any brain disorder, family history of febrile seizure, child has previous history of febrile seizure, Any previous knowledge about febrile seizure.

Inclusion criteria:

- Mothers of under 5 years of age children admitted in SVCH.
- Mothers who can read, write, & understand the language Hindi, English, Gujrati.
- Mothers who are available at a time of data collection.
- Mothers who are willingly to participate in the study.

Exclusion criteria:

- Sensory deprived mother.
- Mothers with graduate degree in medical field/ nursing profession.
- Mother of critically ill child.

TOOLS USED IN THE STUDY:

Section A: Demographic Variables and clinical variable

Section B: Structured Knowledge Questionnaire

DATA COLLECTION PROCEDURES:

Research study data collection was started after obtaining the administrative permission from the principal, Shri Vinoba Bhave College of Nursing. Administrative permission was obtained from the Director of Department of Health and Family Welfare Services, DNH & DD.

The data was collected from mothers during the final study data collection period. A brief introduction of self and explanation of the purpose of the study was given to sample. During the data collection period the investigator established a good rapport with the mothers who participated in the study, and took informed written consent after giving sufficient time to consider participation, explained the study's purpose, duration, experimental procedures alternatives, benefits and that it is her right to "leave" the study or procedure at any time.

The samples were selected based on the inclusion and exclusion criteria using non-probability convenience sampling technique. The mothers were selected, out of 60samples, 30 were selected to control group and 30 were selected to experimental group. First the samples for control group were assigned to avoid selection bias and then the experimental group was selected. The Demographic data were collected and kept confidential and the participants were denoted only by the sample number.

ANALYSIS AND FINDINGS:

- **Section A-** Description of demographic and clinical variables of mothers in both experimental and control group.
- **Section B-** Assessment of pre- test and posttest level of knowledge regarding febrile seizure among mother in both experimental and control group
- **Section C-** Effectiveness of educational package on knowledge regarding Prevention and management of febrile seizure among Mothers in both experimental and control group.
- **Section D-** Associate pretest level of knowledge scores with selected demographic variables of mothers in both experimental and control group.

SECTION A- DESCRIPTION OF DEMOGRAPHIC AND CLINICAL VARIABLES OF MOTHERS IN BOTH EXPERIMENTAL AND CONTROL GROUP.

TABLE 1: Frequency and percentage distribution of subjects based on the subjects of demographic variables of experimental and control group

Sr. no	Demographic variables	Control group(n=30)		Experimental group(n=30)	
		f	%	f	%
1	**Age of the mother (in years):**				
	20-30	20	66.7	16	53.3
	31-40	9	30	12	40
	41-50	1	3.3	2	6.7
2	**Education:**				

	Primary education	9	30	9	30
	Middle education	13	43.3	13	43.3
	Secondary education	6	20	8	26.7
	Higher secondary education	2	6.7	0	0
3	**Occupation:**				
	Government	1	3.3	0	0
	Private	12	40	11	36.7
	House wife	17	56.7	19	63.3
4	**Religion:**				
	Hindu	22	73.3	24	80
	Muslim	8	26.7	6	20
5	**Family monthly income**:				
	<10000 /-	7	23.3	3	10
	10000-15000/-	12	40	15	50
	15000-20000/-	7	23.3	11	36.7
	20000 above /-	4	13.3	1	3.3
6	**Age of child:**				
	At birth to 1 year	5	16.7	4	13.3
	1year to 3 years	8	26.7	14	46.7
	3 years to 5 years	17	56.7	12	40
7	**Type of family:**				
	Nuclear family	15	50	12	40
	Joint family	15	50	17	56.7
	Extended family	0	0	1	3.3
8	**Any bad habit:**				
	No	30	100	30	100
9	**Sources of health information:**				
	Mobile	12	40	12	40
	Television	8	26.7	13	43.3
	Newspaper	10	33.3	5	16.7

This above table of frequency and percentage distribution of demographic variables includes age of mother, education, occupation, religion, family monthly income, age of child, type of family, any bad habit, and sources of health. most of them 16 (53.3%) belong to the age group of 20–30 years in the experimental group and 20 (66.7%) in the control group. In the 31–40 age group, in the experimental group, 12 (40%) and in the control group, 9 (30%) In terms of age of mother, in experimental group 2

(6.7%) and in control group 1 (3.3%), subjects belong to 41–50 years. The table indicates that the majority of the subjects (43.3%) had middle education in the control group and experimental group, respectively. In primary education, 9 (30%) were in the experimental and control groups. The table also indicates that in experimental group 19 (63.3%) and in control group 17 (56.7%), subjects are housewives. In the experimental group, 11 (36.7%) mothers and in the control group, 12 (40%) mothers are doing the private job. child is 1 year to 3 years, and in the control group, 17 (56.7%), the age of the child is 3 years to 5 years. In the experimental group, 17 (56.7%) subjects belong to the joint family, and in the control group, 15 (50%) belong to the nuclear family. There is no subject indicates any bad habits in the control and experimental groups (30%), respectively.

TABLE 2: Frequency and percentage distribution of subjects based on the subjects clinical variables of experimental group and control group. n= 60

Sr. no	Clinical variables	Control group(n=30)		Experimental group(n=30)	
		f	%	f	%
1	**Child suffering from brain disorder:**				
	No	30	100	30	100
2	**Family history of febrile seizure:**				
	Yes	5	16.7	7	23.3
	No	25	83.3	23	76.7
3	**Previous history of febrile seizure:**				
	Yes	5	16.7	7	23.3
	No	25	83.3	23	76.7
4	**Previous knowledge about febrile seizure:**				
	Yes	3	10	3	10
	No	27	90	27	90

SECTION B- ASSESSMENT OF PRE- TEST AND POSTTEST LEVEL OF KNOWLEDGE REGARDING FEBRILE SEIZURE AMONG MOTHER IN BOTH EXPERIMENTAL AND CONTROL GROUP

Table : 3 Component wise of mean, standard deviation, mean percentage, of control group knowledge score of mothers on prevention and management of febrile seizure.

n= 60

Sr. no	Components	Max score	Control group –post test			Experimental group – post test			Difference in mean %
			Mean	SD	Mean%	Mean	SD	Mean%	
1	General aspects	5	0.97	0.92	19.40	3.43	0.97	68.6	49.2
2	Sign and	5	0.9	0.84	18	3.37	0.99	67.4	49.4

	symptoms								
3	Care giver responsibility	6	0.77	0.93	12.83	4.27	1.36	71.17	58.34
4	Do and don's	4	0.6	0.86	15	3.33	0.80	83.25	68.25
5	Over all knowledge	20	3.23	2.85	16.15	14.4	2.42	72	55.85

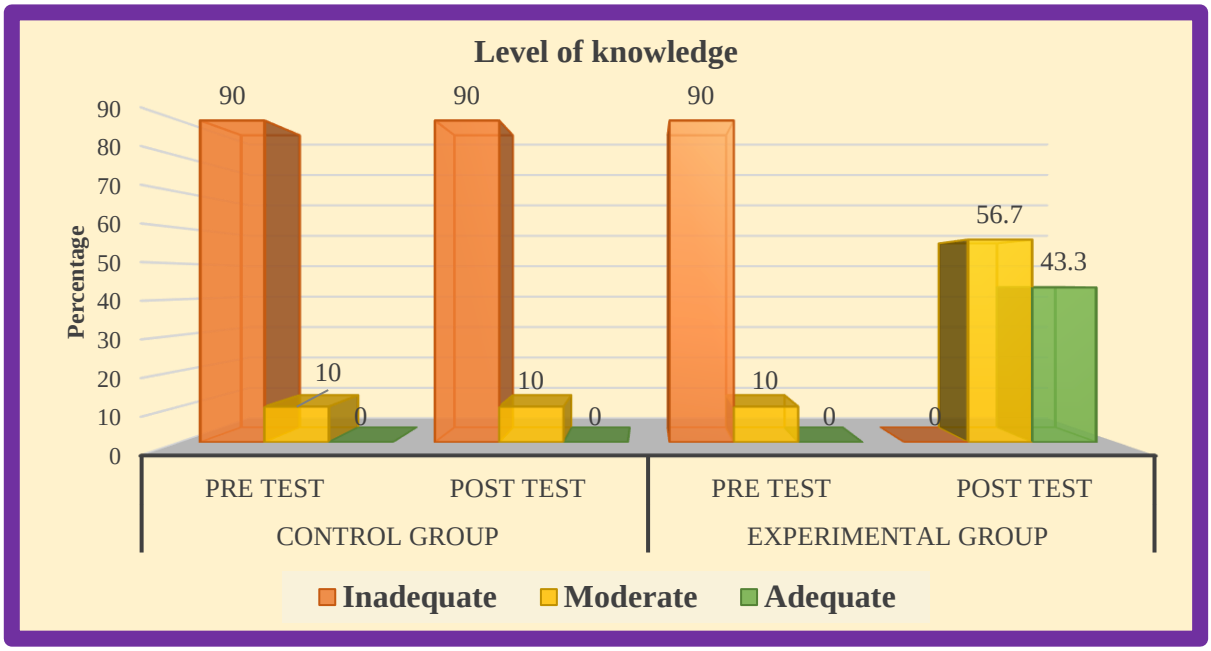
Table 4.6 indicates that the experimental group posttest level of knowledge of subjects over all knowledge mean of 14.4, with standard deviation of 2.42 and mean percentage 72%. And control group posttest level over all knowledge mean was 3.23 with standard deviation 2.85 and mean% was 16.15%. This table indicate that the level of knowledge in both group experimental and control, the posttest knowledge mean difference was 55.85%.

Table-4: Frequency and percentage distribution of pretest and post test score ofknowledge among experimental and control group.

n= 60

Sr. no	Level of knowledge	Control group				Experimental group			
		Pre test		Post test		Pre test		Post test	
		f	%	f	%	f	%	f	%
1	Inadequate	27	90	27	90	27	90	0	0
2	Moderate	3	10	3	10	3	10	17	56.7
3	Adequate	0	0	0	0	0	0	13	43.3
4	Overall	30	100	30	100	30	100	30	100

Table 4.7 Indicates that, in the experimental group, the pre- and post-test levels of knowledge among mothers of children with febrile seizures. Among 30 samples, the maximum number of subjects was 27 (90%) who had inadequate knowledge, and 3 (10%) subjects, had moderate knowledge in the pre-test and the 17 (56.7%) subjects had moderate knowledge in the post-test The maximum number of subjects, 13 (43.3%), had adequate knowledge in the post-test.



SECTION C-EFFECTIVENESS OF EDUCATIONAL PACKAGE ON KNOWLEDGE REGARDING PREVENTION AND MANAGEMENT OF FEBRILE SEIZURE AMONG MOTHERS IN BOTH EXPERIMENTAL AND CONTROL GROUP.

Table-5 : Analysis of unpaired t test for comparison of control group and experimental group post test knowledge score to assess the effectiveness of educational package among mother of children with febrile seizure.

n= 60

Sr. no	Components	Control post test		Experimental post test		Mean difference	't'-value	P-value
		Mean	SD	Mean	SD			
1	General aspects	0.97	0.92	3.43	0.97	2.47	10.05	p<0.001(S)
2	Sign and symptoms	0.9	0.84	3.37	0.99	2.46	10.33	p<0.001(S)
3	Care giver responsibility	0.77	0.93	4.27	1.36	3.5	11.59	p<0.001(S)
4	Do and don's	0.6	0.86	3.33	0.80	2.73	12.77	p<0.001(S)
5	Overall	3.23	2.85	14.4	2.42	11.17	16.37	p<0.001(S)

*-P<0.05, significant and **-P<0.01 &***-P<0.001, Highly significant (df=58, table value =2.02)

Hence, the stated null hypothesis that there is no significant mean difference between experimental and control group posttest knowledge scores of mothers regarding febrile seizure at the 0.05 level of significance was rejected and the research hypothesis accepted as there was a significant difference between the experimental group post-test and control group post-test level of knowledge among mothers of children with febrile seizure.

SECTION D- ASSOCIATE PRETEST LEVEL OF KNOWLEDGE SCORES WITH SELECTED DEMOGRAPHIC VARIABLES OF MOTHERS IN BOTH EXPERIMENTAL AND CONTROL GROUP.

Table 4.12: Analysis of chi square test to associate pretest level of knowledge score and selected demographic variable of control group.

n= 60

Sr. no	Demographic variables	Inadequate		Moderate		χ^2-value	Table value	p-value
		f	%	f	%			
1	**Age of the mother (in years):** 20-30 31-40 41-50	 18 9 0	 60 30 0	 2 0 1	 6.7 0 3.3	10.0 (df=2)	2.920	0.007 S
2	**Education:** Primary	8	26.7	1	3.3		2.353	0.151

	Middle Secondary Higher secondary	13 5 1	43.3 16.7 3.3	0 1 1	0 3.3 3.3	5.31 (df=3)		NS
3	**Occupation:** Government Private House wife	 1 10 16	 3.3 33.3 53.3	 0 2 1	 0 6.7 3.3	 1.02 (df=2)	2.920	0.599 NS
4	**Religion:** Hindu Muslim	 21 6	 70 20	 1 2	 3.3 6.7	 2.72 (df=1)	6.314	0.09 NS
5	**Family monthly income**: <10000 10000-15000 15000-20000 20000 above	 7 11 6 3	 23.3 36.7 20 10	 0 1 1 1	 0 3.3 3.3 3.3	 1.96 (df=1)	6.314	0.581 NS
6	**Age of child:** At birth to 1 year 1year to 3 years 3 years to 5 year	 5 6 16	 16.7 20 53.3	 0 2 1	 0 6.7 3.3	 2.87 (df=2)	2.920	0.237 NS
7	**Type of family:** Nuclear family Joint family	 13 14	 43.3 46.7	 2 1	 6.7 3.3	 0.37 (df=1)	6.314	0.543 NS
8	**Any bad habit:** No	 27	 90	 3	 10	 0.0318 (df=1)	6.314	0.858 NS
9	**Sources of health information:** Mobile Television Newspaper	12 7 8	40 23.3 26.7	0 1 2	0 3.3 6.7	2.50 (df=2)	2.920	0.287 NS

- ***p<0.05 significant, ** p<0.01 & ***p<0.001 Highly significant.**

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