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RESEARCH ARTICLE

A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAM ON KNOWLEDGE REGARDING FEBRILE CONVULSION AMONG THE MOTHERS OF UNDER FIVE CHILDREN IN SELECTED VILLAGES AT PUDUCHERRY

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ABSTRACT

Background: The health of the children is the fundamental importance in every country. 0-5 age group of children are vulnerable to get any kind of infection. Under five children are in developing stage and all body system is immature. So they get frequently infected with infections like respiratory tract infection, Otitis Media, Diarrhea, Gastro enteritis etc. Fever is a common presentation of infection. In some children high grade fever can result in convulsions. **Objectives:** To find out the Pre-Test level of knowledge and to evaluate the effectiveness of video assisted teaching program on the knowledge regarding Febrile seizure among mothers of under five children. **Methodology:** A Quasi experimental research design with convenience sampling technique was adopted for the study. Data was analyzed using descriptive and inferential statistics. Mean percentage and standard deviation will be used to assess the knowledge regarding management of febrile seizures among the mothers of under five children. chi square test will be used to find out association between the Knowledge scores and practices scores and the selected demographic variables. **Result:** The result of the study showed that the mean knowledge score in pre-test control group mean was 8.10 and Standard deviation was 2.89 in experimental group mean was 7.26 and standard deviation was 2.98 and in post-test control group mean was 9.63 and standard deviation was 3.47 in experimental group mean was 13.63 and standard deviation was 2.45. So, management of febrile convulsions were significantly greater than their mean pre-test knowledge scores at $P < 0.05$ level of significance. **Conclusion:** The outcome of our study will be supportive in designing program that will be of assistance in creating awareness about the management of fever for the under five children among the mothers of under five children.

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INTRODUCTION

The age groups of 0-5 years are categorized as under five children. This age group of children is vulnerable to get any kind of infection. Under five years of age children are in developing stage and all body systems are immature. And as their play activities, poor feedings, and immaturity of immune system they get frequently infected with different infections like Respiratory Tract Infection Otitis Media, Diarrhea, Gastro enteritis etc. Fever is a common presentation of infections. In some children high grade fever can result convulsions (11) Fever means that the body is fighting against the infection. "Fever is defined as an elevation of body temperature in response to pathological stimulus". A clinical policy published by American College of Emergency Physicians (ACEP); a child is considered febrile only when his rectal temperature exceeds 38°C (100.4°F). Fever above 41.5°C (106.7°C) needs immediate and aggressive antipyretic therapy to control the risk of irreversible organ damage. High grade fever also increases the risk of febrile convulsions. Mother is first person to understand that the child is ill and who take care of their children constantly.

She checks the temperature of the child as well. If high grade fever is neglected or mismanaged it leads to febrile convulsions in a child (21). Health has defined a "febrile convulsion (FC) as a seizure episode in infancy or childhood, mostly occurs between 3 months to 5 years of age, associated with fever but without any evidence of intracranial infection, pathological or any traumatic cause". Many Studies revealed that between 2% and 5% of all children will experience Febrile Convulsions before the age of five years. Majority of cases of febrile convulsions occurs in children between the age of 12 & 18 months. In Pacific populations the incidence rate can be as high as 15%. It is known that Febrile Convulsion are most likely to occur in families where there is familiar history of Febrile Convulsions. Children from families with history of convulsion manifests three- times or greater risk than the general population (14). There are two types of febrile convulsions: Simple febrile convulsion which last less than 15 minutes and do not occur again during the infection. (4)

NEED FOR THE STUDY

The relation between fever and convulsions in children had been documented by Hippocrates as early as the 5th century B.C. Diagnosis of this condition is essentially clinical and based on its description provided by parents because the convulsion would have been subsided by the time they reach to hospital. Watching a febrile convulsion is emotionally traumatic for parents, and many think that their child is dying, or their child's brain is getting damaged (8). People in the countryside often associate convulsion of any sort with supernatural act. Children who suffered febrile convulsion are feared or stigmatized as being under some negative spell. Therefore, people resort to propitiatory rituals and traditional treatments with the help of local quacks before the children are taken to the hospitals. Another common practice is to subject the children to strict dietary restrictions. Meat, egg, garlic etc. are prohibited, which deprives the children of balanced diet and leads to deterioration of health. (3)

REVIEW OF LITERATURE

An extensive review of literature was done by investigators to elicit information about febrile seizure among the mothers of under-five. Jihan Alifa Syahida, Nelly Amalia Risam, Vita Murniati Tarawan, (2016) Febrile seizures frequently occur in children under 5 years old and usually create fear and anxiety among parents. Poor understanding of febrile seizure among parents contributes to mismanagement of seizure. The objective of this study was to identify the knowledge and attitude on febrile seizure among mothers of under five children. This descriptive community-based survey comprised of 96 mothers with under 5 children who were chosen through randomization. This survey was conducted in Hegarmanah Village, Jatiningan West Java, Indonesia in October 2013. Data were collected using a questionnaire and analyzed using frequency analysis. Fifty-nine respondents (61%) considered that high fever in their children will result in seizure and 63 months (65%) stated that this condition was a life-threatening situation which could lead to brain damage (50%) and paralysis (50%). There were some respondents who would manage seizure by shaking (27%) or holding the child tightly during seizure (22%) and putting spoon into the children's mouth (59%). Sixty respondents (62.5%) prevented febrile seizure by giving them coffee. Knowledge and attitude regarding febrile seizure is good, but the knowledge and attitude towards the outcome and what to do during febrile seizures occasion are still poor. (15).

Parmar Rc, Sahu DR, Bavdekar SB (2017) Parental anxiety and apprehension is related to inadequate knowledge of fever and febrile convulsion. To study the knowledge, attitude, and practices of the parents of children with febrile convulsions. Prospective questionnaire-based study in a tertiary care center carried out over a period of one year. 140 parents of consecutive children presenting with febrile convulsion were enrolled. Chi-square test. 83 parents (59.3%) could not recognize the convulsion; 90.7% did not carry out any intervention prior to getting the child to the hospital. The commonest immediate effect of the convulsion on the parents was fear of death (n=126, 90%) followed by insomnia (n=48, 34.3%), anorexia (n=46, 32.9%), crying (n=28, 20%) and fear of epilepsy (n=28, 20%). Fear of brain damage, fear of recurrence and dyspepsia were voiced by the fathers alone (n=20, cumulative incidence fear 14.3%). 109 (77.9%) parents did not know the fact that the convulsion can occur due to fever. The long-term concerns included fear of epilepsy (n=64, 45.7%) and future recurrence (n=27, 19.3%) in the affected child. For 56 (40%) of the parents every subsequent episode of fever was like a nightmare. Only 21 parents (15%) had a thermometer at home and 28 (20%) knew the normal range of body temperature. Correct preventive measures were known only to 41 (29.2%). Awareness of febrile convulsion and the preventive measures was higher in socio-economic grade ($P < 0.05$). The parental fear of fever and febrile convulsion is a major problem with serious negative consequences affecting daily familial life (24).

RESEARCH METHODOLOGY

This chapter deals with the research approach, research design, setting, population, sample, sample size, sampling technique, criteria for sample selection, description of tool, score interpretation, data collection procedure and plan for data analysis adopted to assess the level of knowledge.

RESEARCH APPROACH: A quantitative research approach is chosen for this study.

RESEARCH DESIGN: The research design chosen for this study is quasi experimental research design (pre-test and post-test with control group).

SETTING OF THE STUDY: The study setting chosen for the data collection is Moorthikuppam and Manapet villages of Irumbakkam. Moorthikuppam village is located 4.5 km away from the Kirumbakkam bus stop, and Manapet village is located 4 km away from the Kirumbakkam bus stop. Both Moorthikuppam and Manapet villages come under the Bahour commune panchayat and primary health care center is in Kirumbakkam. Moorthikuppam village contains one sub center, totally 973 people are living in Moorthikuppam village in 270 houses, where in Manapet villages totally 600 people are living in 188 houses.

STUDY POPULATION: The population of present study consists of mothers of under five children in village of Kirumbakkam.

SAMPLE: The sample selected for this study includes mothers of under-five who fulfill the inclusion criteria.

SAMPLE SIZE: The sample size for the study is 60 others of under five children (30-control group, 30 experimental group) who fulfill the inclusion criteria.

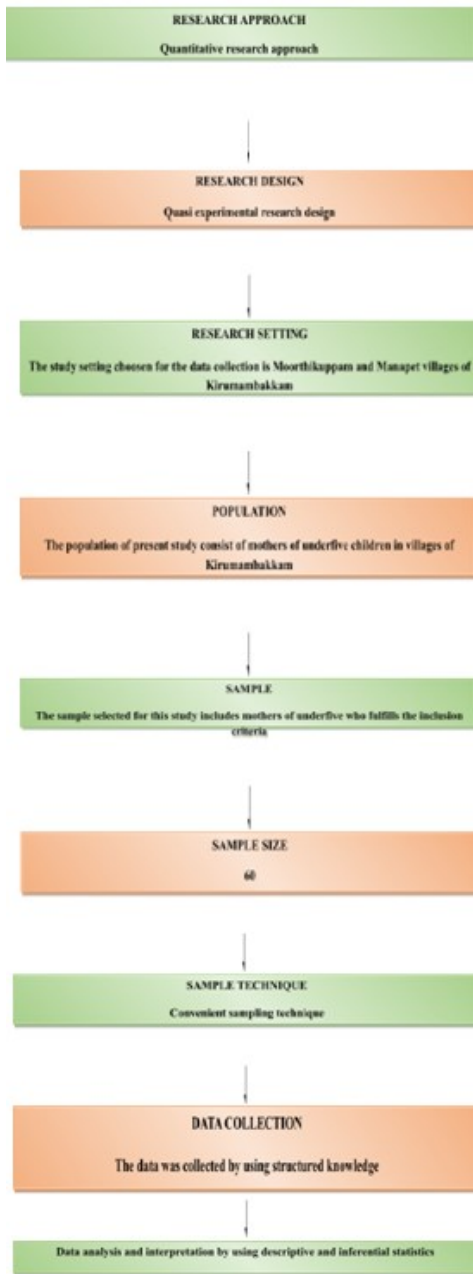
SAMPLING TECHNIQUE: Convenient sampling method technique was used for the study.

DATA COLLECTION PROCEDURE: The investigators will get the clearance from college ethical committee and the permission from the Kirumbakkam primary health center for the data collection proceedings in the villages of Kirumbakkam and written consent will be obtained from the participants. The semi-structured questionnaire will be given to the participants and pre-test will be obtained followed by the video assisted teaching will be given to the participants and after 7 days posttest will be obtained from the participants with the same questionnaire to know the effectiveness of the teaching. For the control group after obtaining the written consent the pre-test will be done with the semi-structured questionnaire followed by health education on fever management and prevention of febrile seizure there by the post test will be conducted after 7 days of teaching to obtain the effectiveness.

PLAN FOR DATA ANALYSIS

Descriptive statistics

- Frequency and percentage distribution are used to describe the selected socio-demographic variables of mothers of under five children and to assess the pretest and posttest knowledge on febrile seizures among the mothers of under five children in selected villages at Puducherry.
- Paired t-test was used to assess the effectiveness of video assisted teaching program on fever management and prevention of febrile seizure among the mothers of under five children in selected villages at Puducherry.
- **Inferential statistics** Chi-square test was used to find out the association between the knowledge scores and the selected socio-demographic variables.



DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis of data collected to evaluate the “Effectiveness of video assisted teaching program on knowledge regarding febrile convulsion among the mothers of under five children in selected villages at Puducherry.” The analysis and interpretation of data of this study were based on data collected through structured knowledge and the collected data was coded, analyzed, organized, tabulated, and associated with selected socio demographic variables and the findings were interpreted in the following sequence.

Section A: Frequency and percentage distribution of selected socio demographic variables among mothers of under five children at selected villages in Puducherry.

Section B: Frequency and percentage distribution of pretest and posttest level of knowledge on febrile seizure among mothers of under five children at selected villages in Puducherry.

Section C: Effectiveness of Video Assisted Teaching Program on knowledge regarding febrile seizure among mothers of under five children at selected villages in Puducherry

Section D: Comparison of significant change in level of knowledge from pre-test to post-test among mothers of under five children between the experimental and control group.

Section E: Association between selected sociodemographic variables and level of knowledge on experimental and control group on febrile seizure among mothers of under five children.

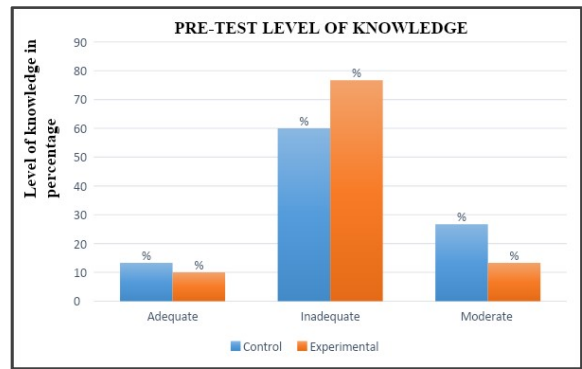


Fig. 1. Percentage distribution of level of knowledge on febrile seizures in Pre-test among mothers of under five children in experimental and control group

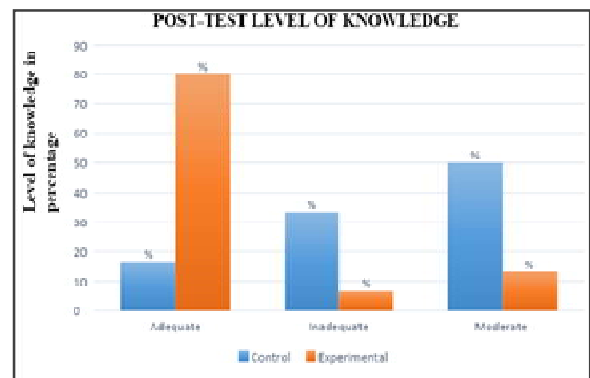


Fig.2. Comparison of Posttest level of knowledge on febrile seizures among mothers of under five children in experimental and control group

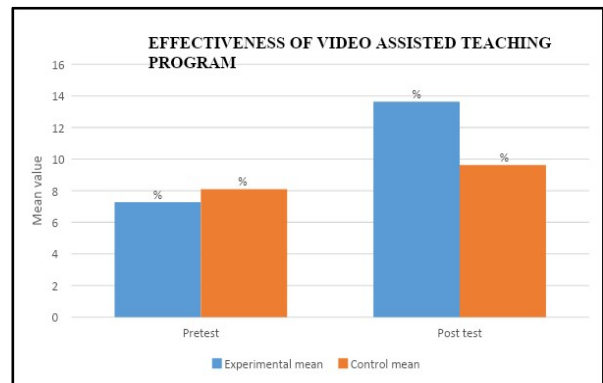


Fig 3. Percentages distribution of effectiveness of video assisted teaching program among mothers of under five children in both experimental and control group

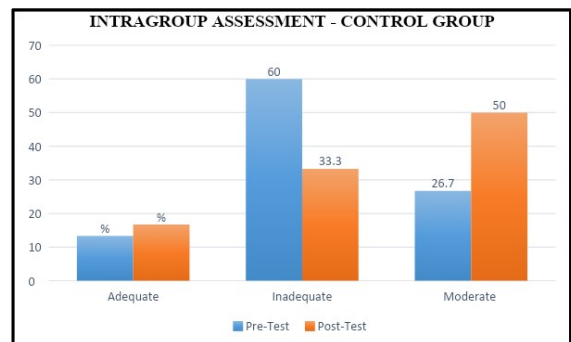


Fig 4. Distribution of Intra group assessment of level of knowledge on both pretest and posttest – Experimental group

Table 1. Association between selected socio demographic variables and level of knowledge on febrile seizure among the mothers of under five children

Sl.NO	DemographicVariables	Response	Control group		Experimental group		P value
			N	%	N	%	
1	Age of thechild	a)0-1 year	0	0.00	11	36.67	0.051
		b)1-2 years	6	20.00	6	20.00	
		c)2-3 years	8	26.67	9	30.00	
		d)3-4 years	6	20.00	2	6.67	
		e)4-5 years	10	33.33	2	6.67	
2	Gender of thechild	a).Male	14	46.67	16	53.33	0.054
		b)Female	16	53.33	14	46.67	
3	Education ofMother	a)Professional degree	1	3.33	4	13.33	0.06
		b)Graduate	6	20.00	8	26.67	
		c)Postgraduate	1	3.33	4	13.33	
		d)School diploma	1	3.33	1	3.33	
		e)High school	10	33.33	9	30.00	
		f)Middle school	11	36.67	4	13.33	
4	Occupation	a)House wife	26	86.67	26	86.67	0.08
		b)Doctor	1	3.33	0	0.00	
		c)Labor	2	6.67	0	0.00	
4	Occupation	d)Software engineer	1	3.33	0	0.00	0.08
		e)Staff nurse	0	0.00	4	13.33	
		a)Rs. <10,000	10	33.33	7	23.33	
5	Family monthlyincome	b)Rs.10,000-20,000	14	46.67	13	43.33	0.10
		c)Rs.20,000-30,000	3	10.00	5	16.67	
		d)Rs.40,000-50,000	1	3.33	0	0.00	
		e)Rs.50,000-1,00,0 00	0	0.00	1	3.33	
		f)Rs. >1,00,000	2	6.67	0	0.00	
				a)20-30 years	20	66.67	
6	Age of Mother	b)30-40 years	10	33.33	5	25	0.26
		a)Joint family	11	36.67	11	36.67	
7	Type offamily	b)Nuclear family	19	63.33	19	63.33	1.0
		a)Yes	3	10.00	3	10.00	
8	Previous history offebrile disorder	b)No	27	90.00	27	90.00	1.0

DISCUSSION

A total number of 60 under five children were selected for this study, convenient sampling method techniques was used for this study. Quantitative research approach was chosen for this study. The research design chosen for this study is quasi-experimental research design (pre- test and post-test with control group). A modified Rosen Stock Model (1988) was adopted for this study as conceptual framework. The level of knowledge was assessed by using structured knowledge questionnaire. Data analysis was done using descriptive and inferential statistics.

Objectives 1: To assess the pre-test level of knowledge among the mothers of under five children on febrile seizure in experimental and control groups. Shrikant Desai, Pranbhuswami Hiremmath, Prakash Naregal (2015) The mean post test knowledge was higher than the pretest knowledge. In pretest 84% of respondents had inadequate knowledge, 16% had moderate and no one had adequate knowledge. In posttest in experimental group 66% had adequate knowledge 44% had moderate knowledge and in control group 84% had inadequate, 16% had moderate knowledge and no one of the respondents had adequate knowledge. (29)

Objectives 2: To evaluate the effectiveness of the video assisted teaching program on knowledge regarding febrile seizures among the mothers of under-five. The result was supported by the following research studies: T. Muthukumar, (2019) The occurrence of febrile convulsion in children is common in 2 to 5% of children younger than age 5 years with the peak incidence in the second year of life. Recent evidence that suggests a small subset of children that present with fever may cause febrile conclusion So appropriate parental action is necessary to prevent febrile convulsion and reduce complication. This study is to assess the effectiveness of video assisted teaching on febrile convulsion among primary caregivers of under five children at sedarapet, Puducherry.

Quasi experimental one group pretest and posttest design was used, in which 60 Primary care givers of under five children were assessed the knowledge and video assisted teaching was administered and after a week level of knowledge was assessed by using same structured interview schedule. Study revealed that, video assisted teaching program on febrile convulsion was found to be an effective, appropriate and feasible mode to develop knowledge on practice Primary caregivers of under five children regarding febrile convulsion at $p > 0.05$. (30).

SUMMARY, RECOMMENDATION, AND CONCLUSION

Nursing practice: The expanded role of the professional nurse emphasises the activities which promote the health of the under five children. Through video assisted teaching program the nursing students educated about the practice of fever management to the mothers of under five children and educate them to practice in their day-to-day life.

Nursing administration: As a nurse administrator of any health institution should educate about the management of fever by using the following fever management techniques; Dress your child in light clothing, Give extra fluid to the child, Give sponge bath, Place the child in proper ventilation, Provide paracetamol syrup.

Nursing research: Various studies can be conducted with newer methodology. The study finding shall be disseminated through conference and journals to promote the awareness of management of fever among the under-five mothers.

CONCLUSION

The outcome of our study will be supportive in designing program that will be of assistance in creating awareness about the management of fever for the under five children among the mothers of under five children.

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