

A Study to Evaluate the Effectiveness of Structured Teaching Program on Knowledge Regarding Management of Febrile Seizures Among the Mothers of Toddlers

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Abstract:

Febrile seizures are the most common seizure of childhood. Febrile seizures are seizure episodes that occur in the presence of a fever ($>38.0^{\circ}\text{C}/100.4^{\circ}\text{F}$), usually in the context of a viral infection, and commonly occur in children between 6 months and 5 years old. Although complications are rare, it can also cause recurrent seizures, increase risk of epilepsy, injury, potential cognitive and behavioral issues. Awareness and attitude towards the prevention of febrile seizure are necessary for a better quality of life. Educating mothers and caregivers about prevention of febrile seizure has an important role in preventing complications. This descriptive study on 60 mothers of toddler children at FRU Hospital Teok, Jorhat was done to assess the knowledge regarding management of febrile seizures. The study found that, 48.3% of them had inadequate knowledge ($\leq 50\%$) scores, 43.3% of them had moderate and 8.3% adequate knowledge (51-75%) scores.

Keywords: Febrile seizure, Mothers, Toddler, STP, Management

Fever in children is a common concern for parents and one of the most frequent presenting complaints in emergency department visits, often involving non-pediatric emergency physicians. Although the incidence of serious infections has decreased after the introduction of conjugate vaccines, fever remains a major cause of laboratory investigation and hospital admissions. Febrile seizures are the most common seizure of childhood. Febrile seizures are seizure episodes that occur in the presence of a fever ($>38.0^{\circ}\text{C}/100.4^{\circ}\text{F}$), usually in the context of a viral infection, and commonly occur in children between 6 months and 5 years old. This definition excludes seizures occurring in the presence of an underlying CNS infection or metabolic disturbance. Febrile seizures are classified as either simple or complex based on their clinical features. Simple febrile seizures are single, generalized convulsions lasting less than 15 minutes with a short period of postictal drowsiness. Conversely, complex febrile seizures are characterized by focal seizures, usually limited to one side of the body, lasting 15 minutes or more that can recur within 24 hours. Complex febrile seizures are frequently followed by postictal weakness or paralysis on one side of the body (ie, Todd paralysis). Other associated symptoms for both febrile

seizure types include loss of consciousness, foaming at the mouth, shortness of breath, and cyanosis. A child who has had a febrile seizure has a greater risk of experiencing afebrile seizures or epilepsy subsequently. Younger children, those with a family history of seizures or epilepsy and those who have complex seizures, have the greatest likelihood of developing further afebrile seizures or epilepsy.

Objectives:

The study was conducted to evaluate

- The knowledge level scores of mothers of toddlers regarding the management of febrile seizures
- To evaluate the effectiveness of structured teaching program regarding the management of febrile seizures
- To find an association between the pretest knowledge scores of mothers of toddlers with their selected socio demographic variables.

Review of literature:

A prospective questionnaire study conducted over a period of one year in Department of Pediatric of a tertiary care hospital KIMS, Bangalore. 110 children with febrile convulsion in the age group of 6 months to 5 years were enrolled. Out of 110 children, 82 had single convulsion and 28 had recurrent convulsions. Mean age of onset of first febrile convulsion was 20 months. About 50 (45.45%) had experienced convulsion with one-episode of fever. Only 46 (41.8%) of parents recognized convulsion. Others interpreted convulsion as shivering (20.9%), evil effect (7.2%), excessive cry tantrum (10.9%), fainting spell (8.18%) and lethargy (20%). 88 (80%) did not carry out any intervention prior to getting the child to hospital. Effect of convulsion on parents was fear of death (82.7%), fear of epilepsy (17.3%), fear of recurrence (34.5%). 85% parents did not know that convulsion can occur due to fever. 32% thought that traditional treatment would help. Only 38% had thermometer at home and 23% knew the normal range of body temperature. Preventive measures were known to 44%.

A study was conducted to assess the effectiveness of structured teaching programme on knowledge and practice regarding febrile seizures and its home care management among mothers of children age group between 1-6years attending to pediatric outpatient department and wards of Mamata General Hospital, Khammam, Telangana. : The pretest and posttest knowledge means were 12.52 and 24 respectively. The standard deviation for pretest and posttest were 4.86 and 4.27 respectively. The mean difference was 11.48. The calculated 't' value 13.57 is greater than tabulated value 2.0 at $p < 0.05$ level. The pretest and posttest practice mean were 5.81 and 13.47 respectively. The standard deviation for pretest and posttest were 8.75 and 2.87 respectively. The mean difference was 7.66 The calculated 't' value 13.98 is greater than tabulated value 2.0 at $p < 0.05$, shows that there is a significant difference between pre and posttest practice at ($p < 0.05$) level. The study concludes that structured teaching programme was effective in enhancing the knowledge and practice of mothers regarding febrile seizures and its home care management.

To assess the effectiveness of a structured teaching programme regarding knowledge on febrile convulsion among mothers of under-five children in a selected hospital in Mumbai. The mothers of under-five children were selected through a non-probability convenient sampling technique. A self-structured tool was prepared to collect the data through pre and post-test. Results: In pre-test, out of 60 samples, 3 mothers were having good knowledge, 50 mothers were having average knowledge and 7 mothers were having poor knowledge. In post-test, 54 mothers were having good knowledge and 6

mothers were having average knowledge. The obtained tcal value 16.77 is greater than ttab value at the level of significance 0.05. Hence the results show that structured teaching program is effective in increasing the knowledge level of under-five mothers regarding febrile convulsion.

Methodology:

The research design adopted for this study was descriptive type. Its setting was FRU Hospital, Teok Jorhat. The study population consisted of 60 mothers of toddler children who are available during the period of data collection. Pretest was conducted on a total of 60 mothers of toddlers and instructions were given on answering the questionnaire and doubts were clarified. Each respondent took 20-30 min to answer demographic data and the questionnaire.

Post-test was conducted on the same day after administration of the STP; the same rating scales were administered. During the conduction of the study there was no problem aroused and subjects were cooperative to conduct the study. The collected data was compiled for analysis using both descriptive and inferential statistics based on the objectives and hypothesis of the study.

Result and Discussion:

Table-1 shows the obtained data on the socio demographic profile were analyzed by using descriptive statistics and are summarized in terms of frequency and percentage.

Variable	Category	Frequency	Percentage
Age (in years)	20-25	12	20%
	26-30	12	20%
	31-35	17	28.3%
	36 and above	19	31.7%
Religion	Christian	10	16.7%
	Muslim	22	36.7%
	Hindu	11	18.3%
	Other	17	28.3%
Educational status	Primary	15	25%
	Secondary	8	13.3%
	Higher secondary	13	21.7%
	Graduation	10	16.7%
	Post-graduation	14	23.3%
Occupation	Government employee	18	30%
	Private employee	9	15%
	Business	11	18.3%
	Agriculture	14	23.3%
	Unemployed	8	13.3%
Monthly family income	Less than 10000	10	16.7%
	Rs. 10001-25000	10	16.7%
	Rs. 25001-50000	19	31.7%
	500001 and above	21	35%

Number of children in the family	1	20	33.3%
	2	22	36.7%
	3 and above	18	30%
Type of family	Nuclear	31	51.7%
	Joint family	29	48.3%
Source of information	Family	11	18.3%
	Friends	20	33.3%
	Social media	16	26.7%
	Health care professionals	13	21.7%

With regard to age, 20% of the respondents were in the age group of 20–25 years, another 20% belonged to 26–30 years, 28.3% were between 31–35 years, and 31.7% were 36 years and above. In terms of religion, the majority (36.7%) were Muslims, followed by 28.3% who belonged to other religions, 18.3% were Hindu, and 16.7% were Christians. Regarding educational status, 25% of the respondents had primary education, 13.3% had secondary education, 21.7% completed higher secondary, 16.7% were graduates, and 23.3% had post graduation. With respect to occupation, 30% of the participants were government employees, 23.3% engaged in agriculture, 18.3% in business, 15% were private employees, and 13.3% were unemployed. Considering monthly family income, 35% of families earned ₹50,001 and above, 31.7% had income between ₹25,001–50,000, while 16.7% each belonged to the groups earning below ₹10,000 and 49 ₹10,001–25,000. In number of children, 33.3% of the respondents had one child, 36.7% had two children, and 30% had three or more children. Family type, 51.7% of respondents lived in nuclear families and 48.3% in joint families. As for the source of information, 33.3% received information from friends, 26.7% through social media, 21.7% from healthcare professionals, and 18.3% from family members.

Table- 2: Classification of Pre- Test Knowledge level of mothers of toddlers regarding the management of febrile seizures.

Knowledge level	Category	Respondents	
		Number	Percentage
Inadequate	≤50 % score	29	48.3%
Moderate	51-75 % score	26	43.3%
Adequate	>75 % score	5	8.3%
Total		60	100

The above indicates that pre-test level of knowledge of mothers of toddlers regarding the management of febrile seizures. In this study, Majority 48.3% of them had inadequate knowledge (≤50%) scores, 43.3% of them had moderate and 8.3% adequate knowledge (51 75%) scores.

Table- 3: Classification of Respondent Post- test Knowledge level of mothers of toddlers regarding the management of febrile seizures

Knowledge level	Category	Respondents	
		Number	Percentage
Inadequate	≤50 % score	7	11.7%
Moderate	51-75 % score	26	43.3%
Adequate	>75 % score	27	45%
Total		60	100

The above table depicts that posttest level of mothers of toddlers regarding the management of febrile seizures. In this study Majority 45 % of them had adequate knowledge (>75%) scores, 43.3 % of them had moderate knowledge (51-75%) scores and 11.7% of them had inadequate knowledge.

Table-4: Overall Pre-test and Post-test Mean Knowledge scores of mothers of toddlers regarding the management of febrile seizures

Aspects	Max score	Knowledge scores				Paired 't' test
		Mean	SD	Mean (%)	SD (%)	
Pre-tes	30	16.25	4.50	54.17 %	15.0%	8.45
Post-test	30	22.10	3.80	73.67 %	12.67 %	
Enhancement	30					

The above describes the effectiveness of structured teaching program on knowledge regarding the management of febrile seizures. The mean pretest knowledge was 16.25 with SD 4.50. The mean posttest knowledge found to be 22.10with SD 3.80. However, there is an enhancement in the post test knowledge score of the patient. Further, the paired t-test value (8.45*) shows statistical significance at level of $p < 0.05$ with df (59).

Conclusion:

The study concluded that there is a need for educating the mothers to enhance the overall well being of the children and to improve their growth and development.

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