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Effectiveness Of A Planned Teaching Program On Knowledge Regarding Management Of Febrile Convulsions Among Staff Nurses Working In A Selected Hospital

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Abstract

Background: In paediatrics, a febrile convulsion is a frequent emergency. Parental concern, nervousness, and poor home management might stem from a lack of understanding. The research was conducted using a pre-experimental one-group pretest and posttest design among 60 mothers of children under the age of five who were chosen by chance. Structured interviews were used to gather data on the treatment of febrile convulsion knowledge of mothers of children under the age of five. Srinagar's RajaRajeswari General Hospital was used for the research. Inferential statistics were used to examine the acquired data. The study's findings revealed that the pretest mean knowledge score was 11.5 with a standard deviation of 3.59 and the posttest mean was 24.41 with a standard deviation of 3.2. According to the study results, moms of children under five who had a febrile convulsion had considerably better posttest knowledge than their mean pretest knowledge score on this subject. T=37.6 significant at p0.01 level, data from 59 observations is significant (df59). The chisquare test found a strong correlation between knowledge and demographic characteristics such as family type, educational level, income, and past hospitalizations. The results of this research show that the organised instruction programme greatly improved the knowledge of mothers of children under the age of five about the treatment of febrile convulsions.. As a result, the researchers came to the conclusion that increasing our understanding of how to treat children with febrile convulsions may help us better care for them, keep them safe, and avoid subsequent complications.

Keywords: Structured teaching program, Effectiveness, Knowledge, Mothers, Under five children, Febrile convulsion.

INTRODUCTION

In today's world, febrile convulsions are a prevalent emergency in paediatric neurology. Seizures that occur in infancy or children, mainly between the ages of three months and five years, with fever but no indication of cerebral infection are defined by the National

Institutes of Health (NIH). According to the International League Against Epilepsy (ILAE), a febrile sickness not caused by an infection of the central nervous system is defined as an acute symptomatic seizure that occurs in a child after one month of age and does not match the criteria for other acute symptomatic seizures.

Seizures in children under the age of five are most often caused by febrile convulsion. From nation to country, the prevalence of febrile convulsions varies greatly. Caucasians have an incidence rate of 2-4 percent, whereas Africans have an incidence rate of 21.5 percent. Malaria, pneumonia, urinary tract infection, septicemia, and viral infections are all major causes of febrile convulsions in Nigeria.

One of the most prevalent childhood ailments is febrile convulsion (FC). Such convulsions are more common in children under the age of five. Parents, especially moms, are terrified of this disorder. An FC is a spasm that happens most often before the age of five years, and it is more common in the second year of life due to high body temperature. Worldwide, 25-35% of the children are admitted in pediatric emergency units with fever and febrile convulsions. Volta Regional Health Annual Reports 2014 also affirmed that febrile associated conditions contribute 30-40 % of hospital admissions. A small number of studies are conducted on the prevalence of FC in developing countries. 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 [7]. Findings from another research show that in India, the prevalence of febrile convulsion is 5.59 percent of the population [8]. Gender, a history of illness in one's family, and viral infections top the list of causes of febrile seizures [9]. In the majority of cases, children are shown to be unable to control their shaking of the arms and legs. When a person has a temperature of more than 101 degrees Fahrenheit (38.3 degrees Celsius), they are more likely to have brief febrile convulsions (less than 5 minutes). Although (FC) does not cause any long-term health issues, it is a terrifying situation for parents, particularly mothers, to deal with.

When a kid has a febrile convulsion, it may create a lot of stress for parents and caregivers. Convulsions account for about half of all convulsive illnesses, and according to the American Academy of Pediatrics (AAP), febrile convulsion affects 3% of children aged six months to five years. More than 5 percent of the population in India suffers from a febrile convulsion at some point in their lives. South India has a 4.14/1000 population prevalence rate for febrile convulsions, with a little male preponderance (prevalence rate of.1/1000 for boys and 0.02/1000 for females). During her clinical experience at Raja Rajeswari Medical College and Hospital Srinagar, the investigator discovered that many moms of children under the age of five were anxious and ill-informed on how to respond to their child's febrile convulsions.

Females were found to have a greater frequency of febrile convulsion than males, according to a population-based research at the University of Turku in Finland. Children with a history of febrile convulsions are more likely to have them in their first two years

of life, according to a research done at the Department of Pediatrics at Ayub Medical College, Pakistan. A 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. The research found that febrile convulsions are the most prevalent condition in paediatric treatment, with a greater incidence rate in men than in women, according to a retrospective study done in a Karnataka hospital.

LITERATURE REVIEW

Rice, S.A., Müller, R.M., Jeschke, S. et al. (2021), Despite the prevalence of febrile seizures (FS) in children, very little is known about how these seizures are seen and understood by parents. FS-affected (FS group, 65 parents) and FS-unaffected parents of children aged 6 months to 6 years were the subjects of our interviews (control group, 54 parents). With regard to seizures, 89% of parents reported dread, with a median intensity rating of 10/10 (Q25/Q75: 9/10), among the group of children who were diagnosed as having an FS. A median temperature of 38.2°C (100.8°F) is the temperature at which 77% of parents in the FS group (will) begin administering antipyretics earlier in the course of the seizure, according to the study's findings on post-epilepsy follow-up. Sixty-two percent of those in the FS group had never heard of FS before the first event (54 percent of control group did not know about FS thus far, n.s.). Precise anti-seizure medications were administered to 92 percent of FS participants, but only 20 percent of the control group (39 percent) used solid objects in the mouths of children experiencing seizures (p = 0.030). As a group, 71% were concerned that infants with FS might choke to death in the FS group (control group, 70 percent , n.s.).

Owusu, B.A. (2022), Fibrous convulsion (FC) is a frequent seizure disease in children between the ages of 9 months and 5 years old. It's normally harmless and self-limiting, and the prognosis is generally good. Aims: The purpose of this research was to find out what people in rural areas of Ghana's Cape Coast Metropolis thought about the aetiology and diagnosis of foetal alcohol spectrum disorder. An exploratory descriptive phenomenological research approach was used to gather data from five randomly chosen towns within two kilometres of the University of Cape Coast Hospital. Interviews with 42 participants, including 27 parents, two grandparents, seven certified traditional health practitioners, four herbalists, and two faith healers, were conducted using a combination of purposeful and snowball sampling procedures. QSR NVivo 12 was used to do the statistical analysis of the dataset. Biological, social/behavioural, and spiritual factors were shown to contribute to the development of FC. Biological factors include genetic defects as well as other underlying health issues, such as diabetes. Poor diet and child care habits are among the behavioural aspects that contribute to the problem. Evil spirits may create damage, and this is a spiritual cause. Pre-attack high body temperature, excessive body jerking, and impairment consequences are all signs of Fetal Alcohol Syndrome (FC). Conclusive evidence points to a complex combination of ecological, social, and spiritual influences as the most likely origins of FC.

Onankpa, B., Oche, G. (2011), For parents, febrile convulsions are a terrifying, emotionally traumatising experience, and they may be anxiety-inducing. The purpose of this study was to examine the prevalence of febrile convulsions in children across the globe. A quasi-experimental approach was used in this research to examine the influence of health education on mothers' awareness and home management of febrile convulsion in a rural community in North Western Nigeria. There were 50 moms who satisfied the qualifying requirements who were chosen. For pre- and post-intervention data, an interviewer-assisted structured questionnaire was given. Results: The majority had only received Quoranic instruction, was devout Muslims, and lacked a steady source of income. 84% were married, 4% were divorced, and 4% were widowed; the remaining 2% were unmarried. Baseline scores for proper home practise of febrile convulsions were 23.96 percent for 16 percent of the research patients, but post intervention scores were 94.0 percent for 82.82 percent. Mothers lacked even the most basic understanding and treatment of febrile convulsions.

Hashimoto, R., Suto, M., Tsuji, M. et al. (2021), A new research suggests that antipyretics may help prevent febrile seizures from recurring, which contradicts prior findings. Antipyretics are effective in preventing the recurrence of febrile seizures in children if they are administered at the right time. Medical literature searches conducted in the Medline (MEDLINE), Embase (EMBASE), and Cochrane Central Register of Controlled Trials databases yielded no results, therefore we conducted a search in the Cochrane Central Register of Controlled Trials.

Hideaki Kanemura, Fumikazu, Masao Aihara, Sano, Sonoko et al. (2013), In the event that their kid has a febrile seizure, little is known about the thoughts and behaviours of the parents (FS). A survey of parents of children who had had their first FS was conducted as part of this research, which gathered information from 78 of these families. Details about the kid and their family; medical care of the child prior to hospitalisation; and parental emotions and actions while the child suffered convulsions were all included in the questionnaire. There was a statistically significant difference between parents with previous awareness and those without prior knowledge of FS in their belief that FS were detrimental (P 0.03). There was a statistically significant difference between parents who knew their kid had an FS and those who didn't (P 0.001). Furthermore, parents who had no previous awareness of their child's seizures did a worse job managing them (P = 0.03) than those who had. FS is misunderstood as a severe, life-threatening ailment by parents, who worry their child's death is impending and misinterpret FS. In the care of children with FS, parental support groups and effective educational intervention programmes for parents should take precedence over other considerations.

MATERIALS AND METHOD

The study was done in the paediatric ward of Raja Rajeswari Medical College and Hospital, Srinagar, using a pre-experimental one group pretest posttest design. At Rajarajeswari Medical College and Hospital, all mothers of children under five admitted to the paediatric

ward during the study period are included in the population. The research comprised 60 moms with children under the age of five who satisfied the eligibility requirements. The sample for this research was selected using the convenience sampling method.

Criteria for selecting sample:

- Mothers with fewer than five children in their care.
- In addition, mothers who are open to participating in the research are .
- Mothers who speak the language of their children's community.
- In Srinagar, Kashmir, mothers who seek treatment in the paediatric ward of Rajarajeevi Medical College and Hospital.

Description of the Tool

As a research instrument, a structured interview schedule was used. There are three parts to the tool:

Section I: There were a total of ten questions pertaining to sociodemographic characteristics such as a person's age and family structure; his or her religion; his or her educational level; his or her employment; and the number of children he or she had.

Section II: a total of 30 items were used to design the questionnaire. Each question has four possible answers, with a score of one for the right answer and zero for the incorrect response. In the end, the score is 30 points.

Section III: An organised training module on febrile convulsion. It was broken down into the following sections:

- Describe the various types of febrile convulsions and their classifications.
- The pathophysiology of febrile convulsions may be explained in detail.
- Clinical manifestations of febrile convulsions may be listed below.
- How to identify a febrile seizure
- Describe how febrile convulsions are treated.

The level of knowledge is classified as

1. Moderate Knowledge- 51-75%
2. Adequate Knowledge ->76%
3. Inadequate Knowledge - 76%

Participants gave their verbal assent after being introduced to her by the researcher. An interview schedule was used to administer the pre-test. After the pre-test, the investigator used a laptop to provide a 30-minute lecture on the treatment of febrile convulsions. Discussion time was scheduled for 10 minutes at the conclusion of the organised instructional session. After five days, a follow-up interview followed the same script. All samples were processed in the same way.

RESULT

1. Demographic Data

It was found that 42 of the 60 samples (70 percent) belonged to a nuclear family, with the bulk of those in the 20-25 year age range (43.33 percent). Samples from rural areas make up 70% of the population, and their religion is a major part of their identity. Sixty-six out of the sixty-six participants were Hindus. Only 20 (33.33 percent) of 60 samples had a college degree; the majority (46.67 percent) were homemakers, whereas 26 (43.33%) had an annual income of more than $5,000. (INR). 31(51.67 percent) of the individuals had two children, and 18(30 percent) received information from health care providers. Most of the 41 patients (68.33 percent) had never been hospitalised previously.

2. Pretest Knowledge

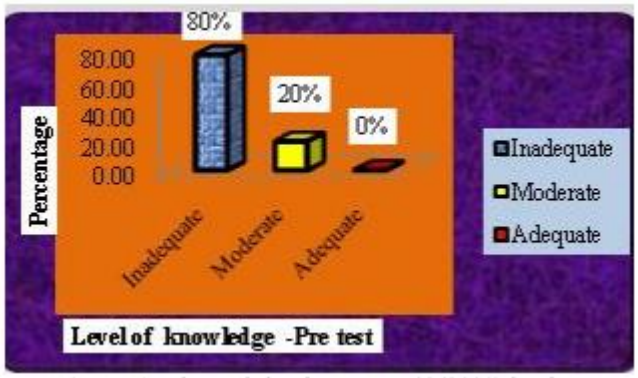

Figure 1: "Showed that in pretest 48(80%) having inadequate, 12(20%) moderate and no one having adequate knowledge regarding management of febrile convulsion"

Table 1: "Mean, SD and Mean% of the pretest knowledge on management of febrile convulsion among mothers of under five children, n=60"

Level of knowledge	*Mean*	*SD*	*Mean%*
Overall	11.55	3.59	38.50

The first table. The pretest mean score was 11.55, with a standard deviation of 3.59 and a mean percentage of 38.5.

3. Post-Test Knowledge

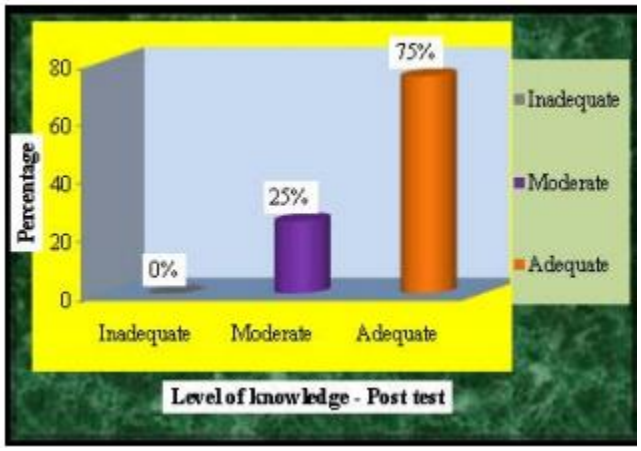

Figure 2 "showed that in posttest 45(75%) having adequate, 15(25%) moderate, and no one having inadequate knowledge regarding management of febrile convulsion."

Table 2: "Mean, SD and Mean% of the posttest knowledge on management of febrile convulsion among mothers of under five children, n=60"

Level of Knowledge	Mean	SD	Mean%
Overall	24.41	3.2	81.37

The post-test mean is 24.41, the standard deviation is 3.2, and the mean percentage is 81.37, as shown in table 2.

3. Comparison of pretest post-test knowledge

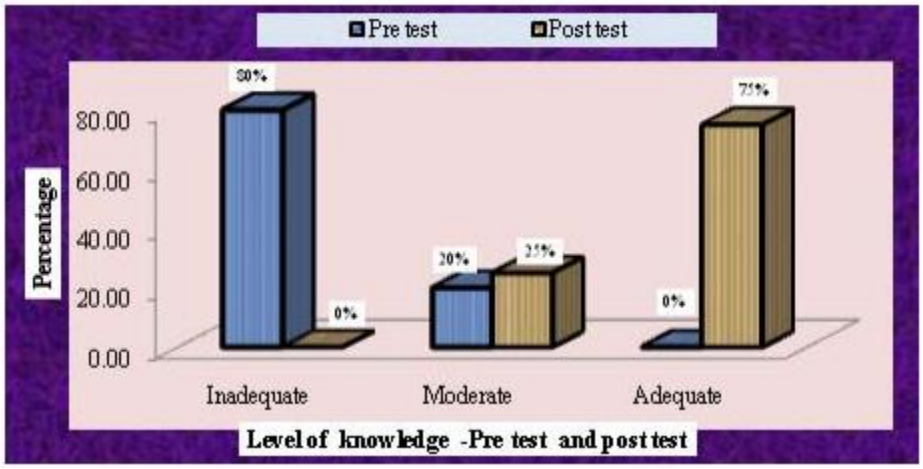

Figure 3 shows that in the pre-test 48 (80%) had insufficient, 12 (20%) moderate, and no one had acceptable knowledge about the treatment of febrile convulsions, whereas in the post-test 45 (75%) had adequate, 15 (25%) moderate, and no one had inadequate information.

Table 3: "Mean, SD and Mean% of the pre and posttest knowledge on management of febrile convulsion among mothers of under five children, n=60"

Level of knowledge	Pre test			Post test			Improved mean		
	Mean	SD	Mean %	Mean	SD	Mean %	Mean	SD	Mean%
Overall	11.55	3.59	38.50	24.41	3.2	81.37	12.86	2.8	42.87

Table 4: "Distribution of effectiveness of structured teaching programme"

Level of knowledge	Improved mean			Paired 't' test	Level of significance
	Mean	SD	Mean%		
Overall	12.86	2.8	42.87	37.6**	Highly Significance

For the total improvement, a 12.86 average, a 2.8 standard deviation and 42.87 percentage points are shown in Table 4. It is 37.6 significant at a 0.01% significance level for the Paired t test value.

Association between posttest knowledge score with their selected demographic variables

Table5. "Distribution of association between posttest knowledge score on management of febrile convulsion with their selected demographic variables, n=60"

Sr. No	Area	df	't' value	Chi square value	Chi square value
1	Type of the family	1	3.84	4.75	Highly Significance
2	Educational Status	4	9.49	11.56	Highly Significance
3	Income of family in Rupees	3	7.82	11.76	Highly Significance
4	Previous history of Hospitalization	4	9.49	10.43	Highly Significance

For moms with children younger than five, there is a strong correlation between post-test knowledge scores and their chosen demographic characteristics (see Table 5). Chi-square results in table 5 show that there is a statistically significant correlation between posttest knowledge score

and demographic characteristics such as family structure, education level and past hospitalisation at a p-value 0.05 level.

DISCUSSION

In the pre-test, 48 (80%) were insufficient, 12 (20%) moderate, and no one had adequate knowledge on the treatment of febrile convulsion.. The findings of a questionnaire-based research conducted at Children's Hospital Wilder Meth, Biel, to evaluate the influence of febrile seizures on the behaviour and emotional state of parents were correlated with the current results. Parents' understanding of febrile seizures was found to be poor by the researchers [13]. More than half of them had adequate knowledge, 15% moderate, and no one lacked it when it came to the management of febrile convulsion in the post-test. This result was similar to a study conducted in Taiwan to examine the effects of educational interventions on parental practises for recurrent febrile convulsions. According to this research, the educational programme outperformed the mailed leaflet in terms of suggested practises [14]. With the improvement score, the subject's mean posttest knowledge score of 12.86 was greater than the pretest knowledge score of 11.55. The t-value of 37.6 was determined to be significant at the p-value of 0.01, indicating a substantial difference between the pre- and post-test knowledge scores. Studies undertaken at a Salem hospital to examine the efficacy of Planned Nursing Intervention on the prevention of febrile fits among the mothers of children with fever have supported this conclusion. According to the findings of this investigation, the understanding and treatment of febrile convulsions have improved significantly [15]. Using the chi square test, it was shown that demographic characteristics such as type of family, education, income, and past history of hospitalisation had a statistically significant connection with post-test knowledge scores at the p 0.05 level. a comparison study of mothers' awareness of fever in children with and without febrile convulsions was undertaken at the department of public health at the University School of Medicine, Juntendo, to back up the findings. When it comes to fever detection, moms of children with a history of seizure were shown to be more accurate than mothers of children without such a history. To ensure that moms get correct information and emotional support, it is critical that family members have access to reliable information.

CONCLUSION

This research found a substantial difference in the knowledge of mothers of children under the age of five on the treatment of febrile convulsions between pre- and post-test. Additionally, the research found that moms of children under the age of five with a history of febrile convulsions had a higher degree of understanding on how to treat them.

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