Original Research Article

A Study To Assess The Effectiveness Of Planned Teaching Programme On Knowledge Regarding Epilepsy Management In School Children Among Primary School Teachers Working In Selected Primary Schools At Malur, Kolar, Karnataka

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ABSTRACT

Introduction: Epilepsy is the most frequent neurological disorder. Teacher should have the basic knowledge about the management of convulsion to provide first and foremost care to the child to save its life.
Methodology: This is experimental study with 50 samples of subjects, conducted in various primary schools. The sample size was 25 teachers in experimental group and 25 in control group selected by Stratified random sampling technique. The structured self administered questionnaire was used to collect data.
Result: The mean post test knowledge (16.72 ± 2.99) was higher than mean pre test knowledge scores (5.4 ± 2.69). In pre-test 84% of respondents had inadequate knowledge, 16% had moderate and no one had adequate knowledge. In post-test in experimental group 66% had adequate & 44% had moderate knowledge and in control group 84% of respondents had inadequate knowledge, 16% had moderate knowledge and no one of the respondents had adequate knowledge.

Key words: assess, effectiveness, epilepsy, teacher, planned teaching programme, Primary School, knowledge.

INTRODUCTION

Epilepsy is the most frequent neurological disorder. It is estimated by the WHO that 3-10 per 1000 of the total population, have epilepsy, while almost one out of 5 children experience a seizure, almost one out of 200 children have epilepsy. [1]

Epilepsy is a disorder that results from the generation of electrical signals inside the brain, causing recurring seizures. Epilepsy is a common chronic neurological disorder. These seizures are transient signs and/or symptoms of abnormal, excessive or synchronous neuronal activity in the brain. About 50 million people worldwide have epilepsy, with almost 90% of these people being in developing countries. Epilepsy is more likely to occur in young children or people over the age of 65 years; however, it

can occur at any time. [2] Seizures are caused by malfunction of the brain's electrical system. The manifestations of seizures are determined by the site of origin and may include unconsciousness or altered consciousness. In children it can occur with a wide variety of conditions involving the Central Nervous System. [3]

It is natural for parents to have concerns, especially about a child's safety. It is said that how the parents handle epilepsy determines how their child will handle it. If epilepsy is treated as a temporary inconvenience by parents, then it becomes a discouragement for the child also. Address any feelings, questions and concerns in a straight forward manner is an important aspect in managing epilepsy. Staying well-informed and encouraging the child will help to build confidence needed for them to face the outside world and enable them to reach their full potential. [4]

Convulsions with an incidence of 17-23 episodes per 1,00,000 children per year is the most common medical neurological emergency in children. [3] Convulsive disorders are among the most common neurologic conditions in children affecting more than 4% of children and 1% of the population by age 20. In the United States, approximately 30% of 1,25,000 new cases of epilepsy are diagnosed each year are in children younger than 18 years. It is estimated that more than 10 million children worldwide have active epilepsy. [5]

During the seizure period the children needs more attention because in seizure the children loose his consciousness , while tonic phase patient falls on the floor , respiration is interrupted temporarily so children may become cyanotic, jaws are fixed and hands are clenched, in clonic phase rhythmic powerful jerky contraction and relaxation of all body muscles may causes injuries, may bite lips and tongue, excessive saliva is blown from the mouth,

due to excessive salivation and tongue drop the patients air way may become occluded. In postictal period patient goes in to a postictal sleep this sleep may be followed by general fatigue, depression, and headache. [6]

In the school environment a teacher may be the first adult to witness a child having a convulsion. Each and every child's behaviour will vary according to the type of convulsion; therefore the teacher should have the basic knowledge about the management of convulsion to provide first and foremost care to the child to save its life. [7] Not only does the teacher aid in managing the convulsion, but he/she also has the responsibility of educating the child and his family, so that they develop a healthy understanding and attitude towards the diagnosis and treatment of convulsive disorders. The medical health professionals, especially nurses are the most responsible persons to improve the knowledge of teachers regarding the health aspect in related to convulsive disorders by providing and conducting educational or in-service programmes in school the setting. [7]

Objectives of the Study:

1. To assess the Pre-existing knowledge level on management of epilepsy in school children among the teachers in the experimental and control group.
2. To find out the effectiveness of PTP regarding knowledge on management of epilepsy in school children among teachers in experimental group.
3. To compare the pre and post test knowledge on management of epilepsy in school children among teachers in experimental group & control group.
4. To determinate the association of pre-test knowledge scores with the selected demographic variables in the experimental and control group.

MATERIALS AND METHODS

This study is an evaluatory approach, research design selected for the study was an experimental design with 50 samples of subjects, conducted in various primary schools at Malur, Kolar, Karnataka India. Target population for the present study was primary school teachers. The sample size was 25 teachers in experimental group and 25 in control group. Mean age of the teacher in teachers in experimental group is 33 in control group 32. Participants were selected by Stratified random sampling technique which is a type of probability sampling method. Primary school teachers who are present at the time of the study, who are teaching from 1st to 5th standard children, both male and female school teachers and Primary school teachers who are able to read and write English were included in study. Primary school teachers who had previously attended training program on epilepsy were excluded. The structured self administered questionnaire was constructed in two parts. **Part I:** Includes 07 aspects related to the demographic variables of respondents about age, educational qualification, religion, and marital status, type of school and source of information. **Part II:** Consists of 25 questions classified under 4 areas related to knowledge regarding epilepsy management, about general aspects of epilepsy, Causes of epilepsy, Clinical manifestations, diagnosis and associative problems of epilepsy, Management and complications of epilepsy. 25 items were included in the structured knowledge questionnaire to assess the knowledge, comprehension and applicability. Each question in the structured self administered questionnaire had four options, one being the right answer and carried one mark. The total score allotted for questions was 25. A scoring key is prepared showing item numbers and correct responses. Thus for 25 items maximum obtainable scores were 25 and minimum was zero. A prior permission is obtained from the authorities of spastic school, the data collection carried out from 19th Dec to 31st Dec 2012. The informed consent was obtained from the teachers and the teachers were assured the anonymity and confidentiality of the information provided them. The data was organized and analyzed based on the objectives and hypotheses of the study by using descriptive and inferential statistics. Data were analyzed in terms of frequencies, percentages, mean, median, standard deviation. The significance of the difference between pre-test and post-test knowledge scores were determined by paired "t" test. The association between post-test level of knowledge and demographic variables were done by using "chi square".

RESULT

Part I: Description of demographic characteristics of primary school teachers

The data in the table shows that maximum 36 % of primary school teachers were in the age group of 20-24, 52 % of teachers studied diploma, 60% of teachers were belongs Hindu, 64% are married, 44% of teachers having 1-5years of experience, 40% teachers working in Govt. Schools. In relation to source of information, 36% of teachers having the mass media as their source of information, 28% from relatives, 12% by health professionals, &24% of teachers didn't receive any kind of information regarding epilepsy.

The table shows that in pre-test both experimental & control group 84% of respondents had inadequate knowledge, 16% had moderate knowledge and no one of the respondents had adequate knowledge. In post-test knowledge in experimental group 66% had adequate & 44% had moderate knowledge and in control group 84% of respondents had inadequate knowledge,

16% had moderate knowledge and no one of the respondents had adequate knowledge.

TABLE-1: Frequency and percentage distribution of sample according to demographic characteristics. N = 50

Sl.No. Variable	Experimental		Control	
	Frequency	Percentage	Frequency	Percentage
Age in years				
20-24	1	4	9	36
25-29	3	12	8	32
30-34	8	32	6	24
35-39	6	24	1	4
40-45	7	28	1	4
Above 45				
Education qualification				
Graduate	17	68	10	40
Post graduate	1	4	2	8
Diploma	7	28	13	52
Others	-	-	-	-
Religion				
Hindu	14	56	15	60
Muslim	7	28	7	28
Christian	4	16	3	12
Others	-	-		
Marital Status				
Married	19	76	16	64
Unmarried	6	4	9	36
Experience of teacher(in years)				
Upto1	5	22	8	32
1-5	8	32	11	44
5-10	11	44	5	20
>10	1	4	1	4
Type of School				
Government	9	36	10	40
Private	9	36	8	32
Aided	7	28	7	28
Source of information				
Mass media	11	44	9	36
Relatives	7	28	7	28
Health professional	2	8	3	12
Did not receive	5	20	6	24

TABLE 2: Pre & post test knowledge scores of primary school teachers regarding management of epilepsy in experimental group & control group.

Grade of knowledge	Experimental Group				Control group			
	Pre – test		Post – test		Pre – test		Post – test	
	f	%	f	%	f	%	f	%
Inadequate(0-8)	21	84	-	-	21	84	21	84
Moderate(9-16)	04	16	11	44	04	16	04	16
Adequate(17-25)	-	-	14	66	-	-	-	-

Table 3: Range, mean, median and standard deviation of knowledge of primary school teachers.

	Knowledge score	Range	Mean	Median	SD
Experimental Group	**Pre test**	1-11	5.4	5	2.69
	Post test	12-22	16.72	17	2.99
Control Group	**Pre test**	1-14	5.84	5	3.18
	Post test	3-10	6.32	6	1.77

The Table 4 Shows that the in experimental group post test range (12-22) is significantly higher than the pre test range(1-11) & in control group post test range (3-10) is significantly higher than the pre test range(1-14).The data also depicts that The mean post test knowledge (16.72 ± 2.99) was higher than mean pre test knowledge scores(5.4 ± 2.69). The median Value of Post test knowledge scores (17) was higher

than the median value of pre test knowledge scores (5). In control group the mean post test score (6.32) is slightly higher than mean pretest score (5.84). On the basis of the findings, the investigator concluded that the Planned Teaching Programme (PTP) was prepared was effective. Hence the Primary school teachers should be encouraged to attend health education programmes.

The result showed that there were no significant association knowledge scores with any selected demographic variables.

Table 4: Chi square test showing association between pre-test knowledge score Control group and selected demographic variables.

Sl no	Variables	X^2 value	df	P value	Inference
1	Age	3.24	4	P>0.05	Not significant
2.	Education	0.96	3	P>0.05	Not significant
3.	Religion	2.87	3	P>0.05	Not significant
4.	Marital status	0.26	1	P>0.05	Not significant
5.	Experience	2.57	3	P>0.05	Not significant
6.	Type of school	0.81	2	P>0.05	Not significant
5.	Source of information	1.68	3	P>0.05	Not significant

* Significant

DISCUSSION

Similar study conducted in Uttar Pradesh in 2008. The result showed that 58.5% were graded as having good knowledge of epilepsy [8] Another cross-sectional study at Port Harcourt metropolis on 118 school teacher shows 10% (12) of the teachers were graded "Good", 45% (54) "Fair," and 43% (52) "Poor" in the overall knowledge score. [9] Study by Prabhuswami et al [10] also shows that Overall post test knowledge on epilepsy 43 (72%) had gained adequate knowledge and 12(20%) gained moderately adequate knowledge on epilepsy after giving PTP. But in our study it is revealed that 84% of respondents had inadequate knowledge, 16% had moderate knowledge and no one of the respondents had adequate knowledge. As per as effectiveness of teaching programme is concerned investigator concluded that the Planned Teaching Programme (PTP) was prepared was effective. in experimental group post test range (12-22) is significantly higher than the pre test range(1-11) & in control group post test range (3-10) is significantly higher than the pre test range(1-14).The data also depicts that The mean post test knowledge (16.72 ± 2.99) was higher than mean pre test knowledge scores(5.4 ± 2.69). These results are supported by many studies like Prabhuswami et al [10] and Prakash et al. [11]

Nursing Implications:

The findings of the study have implications in various areas of nursing education, nursing education, nursing administration and nursing research.

1. **Nursing Education:**
- This study emphasis an enhancement of knowledge to develop Knowledge towards management of epilepsy in school children.
- In order to achieve this nurse as an educator should focus on utilization of health education in rural as well as urban areas.
- The student nurses and all health professionals should be given the responsibility to teach the primary school teachers regarding the management of epilepsy.
- Nurses need to take role as a motivator, facilitator, educator, counsellor and researcher.

2. **Nursing Practice:**
- The study carries an implication that the nurse plays an important role in imparting knowledge and helping primary school teachers to be aware

of management of epilepsy in school children.

- The nurses working in the community could collaborate with primary school teachers for the early recognition of children with epilepsy & prevent complications.
- The nurses could further impart knowledge to the primary school teachers, parents, anganwadi workers and children regarding the management of epilepsy in school children.

3. Nursing Administration:

- Nurse as an administrator plays an important role in educating the professionals and in policy making such as counselling, referral services and mass health education on management of epilepsy in school children.
- The special implication of nursing administration in rural area is that they should pay attention to all section of individuals mostly related to children and to see whether they are provided with enough health education about management of epilepsy in school children, being a nurse administrator, one can arrange in-service education and special training programmes, counselling, training regarding management of epilepsy in school children provided by Government in all PHC's. The nurse administrator's services should be extended from institutional based service to the rural services.

4. Nursing Research

- The essence of research is to build a body of knowledge in nursing. The findings of the present study serve as the basis for the professionals and the students to conduct further studies.

- The generalization of the study results can be made by replication of the study.
- Nursing research is the means by which nursing profession is growing.

RECOMMENDATIONS

On the basis of the study that had been conducted, certain recommendations are given for future studies.

1. A study can be done to compare the knowledge on management of epilepsy in school children among rural and urban primary school teachers.
2. A study can be done to assess the knowledge, practice and attitude regarding management of epilepsy in school children among teachers.
3. Regular health educational programs should be conducted by health professional management of epilepsy in school children among teachers.
4. The nurse researchers can further plan, implement and evaluate a Planned teaching Programme among primary school teachers regarding on management of epilepsy in school children.
5. A study to evaluate a Video assisted teaching among primary school teachers regarding on management of epilepsy in school children

Limitation: The study is limited to:

I. Only primary school teachers of selected schools, therefore the possibility for wider generalization is limited.
II. A small sample of fifty primary school teachers only.
III. The study included only knowledge on management of epilepsy Myths & practices of teachers regarding management of epilepsy were not included.

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