

# First Aid Management of Epilepsy in School Children

Nisha Varghese

Assistant Professor, Teerthanker Mahaveer University, College of Nursing, Moradabad, Uttar Pradesh, India

## ABSTRACT

**Objective:** To assess the effectiveness of planned teaching programme on knowledge regarding first aid management of epilepsy in school children among teachers.

**Materials & methods:** A quantitative research approach with Pre-Experimental one group pretest and post test design was used to conduct the study in selected schools of Greater Noida. Non-probability purposive sampling technique was employed to select 30 school teachers. A self-structured knowledge questionnaire containing 26 items were used for assessing the level of knowledge among the subjects. Data were analyzed using SPSS.

**Results:** The mean knowledge score of the school teachers in pretest  $14.03 \pm 4.514$  is lesser than the mean knowledge score of school teachers in post test  $18.23 \pm 3.848$ , t- value 2.045 which is significant  $P = 0.05$ . There was an association found between the score level with their previous source of information.

**Conclusion:** The study is concluded that planned teaching programme was effective to enhance knowledge among school teachers regarding first aid management of epilepsy.

**KEYWORDS:** Effectiveness, planned teaching programme, knowledge, first aid management, epilepsy, school children

## INTRODUCTION

Epilepsy is one of the most common pediatric neurological disorders with higher incidence during the school years<sup>1</sup>. The International League Against Epilepsy (ILAE) in her 2014 revised definition of epilepsy considered it as a disease of the brain, no longer a disorder. Epilepsy is the most common chronic neurological disease seen in Paediatrics Neurology Units in developing countries; known to affect about 60 million people worldwide of which 80% belong to the developing world; and has a prevalence of 5-10/1000 in developing countries<sup>2</sup>. Children with epilepsy have been reported to have low academic performance compared to children without epilepsy<sup>3</sup>.

Teacher's knowledge toward epilepsy can have significant impact on these difficulties including student's performance, social skill development, and future employment<sup>4</sup>. Studies have indicated that teachers often have insufficient knowledge, inadequate training, and misconceptions about epilepsy and its management<sup>5</sup>.

Teacher's knowledge regarding childhood epilepsy is likely to influence the educational performance of children with the disease<sup>6</sup>.

The objectives were to study school teacher's knowledge regarding first aid management on Epilepsy. It was hypothesized that many teachers may have less knowledge regarding first aid management of Epilepsy.

## Materials and Methods:

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A quantitative research approach with pre-experimental one group pretest and post test design was used to conduct the study in selected schools of Greater Noida. Non-probability purposive sampling technique was adapted to select 30 school teachers. A self-structured knowledge questionnaire was used to assess knowledge among school teacher regarding first aid management of Epilepsy. Ethical and Administrative permission was taken from authorizes in concerned areas. The consent form was prepared for the study participant regarding their willingness to participate in the research study.

**Inclusion criteria:** Teachers who are willing to participate in the study and who are teaching from 1st-12th standards.

**Exclusion criteria:** Teachers who are not present at the time of the study and who are not willing to participate in the study

The research tool for data collection consists of two sections:

### Section 1:- Demographic tool

This part of tool consists of variables pertaining to Socio-demographic profile of subjects such as age, education, occupation, socio-economic status and source of information.

### Section 2:- Self-structured knowledge questionnaire

This part consists of structured questionnaire on knowledge regarding first aid management of Epilepsy. It consists of 26 items for assessing knowledge among school teacher regarding first aid management of Epilepsy. Every item was of multiple choice types with one correct answer carrying 1

mark remaining options 0 marks. The total maximum score was 26 and the minimum score 0. The score were arbitrarily graded as 0-9 has poor knowledge, 10-18 average knowledge and 19-26 has good knowledge. Content validity of the tool was determined by experts in the field of Nursing. The reliability of the knowledge questionnaires was tested by using Split half method and score was found to be  $r = 0.744$ . The tool was prepared in English and Hindi to facilitate better comprehension.

Pre-test was followed by the teaching class regarding first aid management of Epilepsy. After one week, a post-test was conducted by using the same questionnaire, data collected was tabulated and analyzed with the help of descriptive and inferential statistics. Statistical Package for the Social Sciences, India was used for Statistical analysis and  $P = 0.05$  was considered as the level of significance.

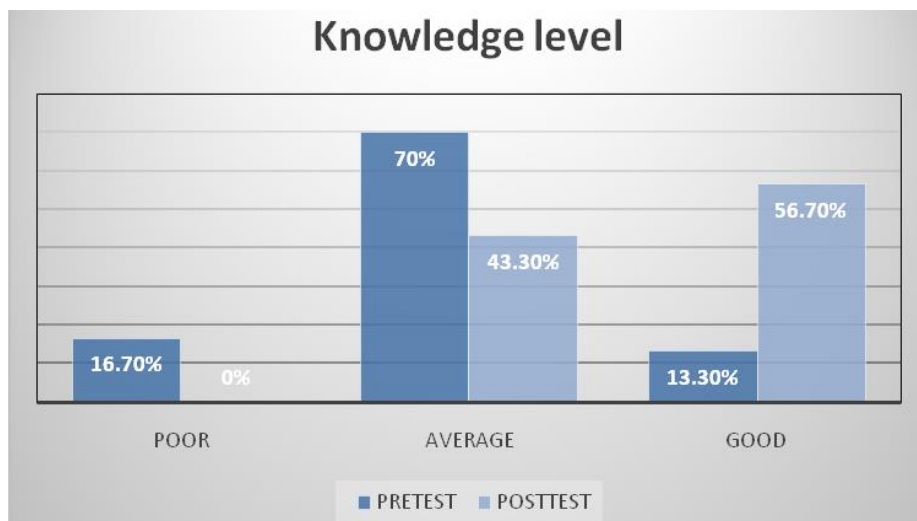
### Results:

The major findings of the study were as follows:

Variables	Opts	Frequency	Percentage
AGE	20-29 years	8	26.7%
	30-39 years	17	56.7%
	40-49 years	5	16.7%
	50-59 years	0	0.0%
SEX	Male	17	56.7%
	Female	13	43.3%
RELIGION	Hindu	29	96.7%
	Muslim	1	3.3%
	Christian	0	0.0%
	Any other	0	0.0%
EDUCATION	Diploma	0	0.0%
	Graduate	2	6.7%
	PG	27	90.0%
	Others	1	3.3%
YEARS OF EXPERIENCE	Fresher	1	3.3%
	1-2 yrs	1	3.3%
	2-4 yrs	4	13.3%
	More than 4 yrs	24	80.0%
SOURCE OF PREVIOUS INFORMATION	Mass Media	7	23.3%
	Relatives	5	16.7%
	Health professional	8	26.7%
	Didn't received	10	33.3%
TYPE OF SCHOOL	Govt.	10	33.3%
	Private	1	3.3%
	Semi govt.	18	60.0%
	Others	1	3.3%

**TABLE 1: Frequency Percentage Distribution of demographic variables of subjects (n=30)**

The table 1 displays that frequency and percentage distribution of demographic variables, the majority of the School teachers 56.7% were in age group of 30-39 years, followed by 26.7% in 20-29 years and least 16.7% in the age group of 40-49 years. According to Education level, majority of teachers 90.0% were PG, followed by 6.7% graduates and least 3.3% were others. According to years of experience, majority of teachers 80.0% had more than 4 years experience, followed by 13.3% had 2-4 years of experience and least 3.3% had 1-2 years of experience and also 3.3% were freshers. According to sources of previous information, majority of teachers 33.3% didn't received information, followed by 26.7% received information from health professionals, 23.3% from mass media, and least 16.7% from relatives.



**Fig-1: Frequency and percentage distribution of knowledge level**

Fig-1 shows that frequency and percentage distribution of overall gradation of knowledge level among school teachers regarding first aid management of Epilepsy. In the pre-test majority 70% had average knowledge, 16.70% poor and 13.30% had good Knowledge wherein post-test, the majority 56.70% had good Knowledge, remaining 43.30% average and none of them had poor knowledge.

**Table 2: Comparison of Knowledge score between Pretest and Post test**

Paired T Test	Mean±S.D.	Mean%	Range	Mean Diff.	Paired T Test	P value	Table Value at 0.05
PRETEST KNOWLEDGE	14.03±4.514	54.00	5-22	4.200	5.784 *	<0.001	2.05
POSTTEST KNOWLEDGE	18.23±3.848	70.10	10-25				

\*\* Significance Level 0.05 Maximum=26 Minimum=0

The table 2 indicates that Comparison of pre-test and post-test knowledge score among the adolescence by using paired t-test, the overall mean score in pre-test 14.03±4.514 was lesser than the post-test mean score 18.23±3.848. The calculated 't' value (5.784 \*) was greater than the table value (t = 2.045) at 0.05 level of significance and the obtained t- value 18.8 which was significant P = 0.05. It is inferred that there is a significant difference in pretest and post test knowledge among School Teachers. So the structured teaching Programme is effective to enhance knowledge among School Teachers regarding First Aid Management of Epilepsy.

**Table 3: Association between pretest knowledge level with their demographic variables**

Demographic Variables	Opts	Good	Average	Poor	Chi Test	P Value	Df	Table Value	Result
AGE	20-29 years	2	5	1	1.778	0.777	4	9.488	Not Significant
	30-39 years	2	12	3					
	40-49 years	0	4	1					
	50-59 years	0	0	0					
SEX	Male	2	10	5	4.596	0.100	2	5.991	Not Significant
	Female	2	11	0					
RELIGION	Hindu	3	21	5	6.724	0.035	2	5.991	Significant
	Muslim	1	0	0					
	Christian	0	0	0					
	Any other	0	0	0					
EDUCATION	Diploma	0	0	0	2.243	0.691	4	9.488	Not Significant
	Graduate	0	1	1					
	PG	4	19	4					
	Others	0	1	0					
YEARS OF EXPERIENCE	Fresher	0	1	0	2.247	0.896	6	12.592	Not Significant
	1-2 yrs	0	1	0					
	2-4 yrs	1	3	0					
	More than 4 yrs	3	16	5					
SOURCE OF PREVIOUS INFORMATION	Mass Media	1	5	1	12.781	0.047	6	12.592	Significant
	Relatives	0	5	0					
	Health professional	0	4	4					
	Didn't received	3	7	0					
TYPE OF SCHOOL	Govt.	1	8	1	2.037	0.916	6	12.592	Not Significant
	Private	0	1	0					

	Semi govt.	3	11	4				
	Others	0	1	0				

Table 3 The Chi-square value shows that there is significance association between the score level and demographic variables (Religion, source of information). There is no significance association between the level of scores and other demographic variables (Age, sex, education, type of school). The calculated chi-square values were less than the table value at the 0.05 level of significance.

### Discussion:

In the present study investigator attempted to evaluate effectiveness of planned teaching programme on knowledge regarding first aid management of epilepsy in school children among teachers working in selected schools at Greater Noida found that structured Teaching programme was effective to enhance knowledge among school teachers on First Aid Management of Epilepsy.

Similar study was conducted in Malur district, kolar at Karnataka. Experimental study was done in which samples of 50 was taken. Out of which 25 was in experimental group and 25 was in the control group, pre-test and post test was done revealing in pre- post test 84% had inadequate knowledge, 16% had moderate knowledge and no one was having adequate after implementation of planned teaching programme 66% had adequate knowledge and 44% had moderate knowledge and no one had inadequate knowledge. A study consonance with my study was conducted in Uttar Pradesh in 2008. The result showed that 58.5% were graded as having good knowledge of epilepsy after PTP. Study by Prabhushwami 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.

In My study it is revealed that 56.7% of respondents had good knowledge, 43.3% had average knowledge and no one of the respondents had poor knowledge after administration of planned teaching programme.

### Implications and Recommendation:

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 on improvement of knowledge regarding first aid management of epilepsy: In order to achieve this nurse as an educator should focus on demonstration of first aid methods to teachers. Nurses should teach them regarding identifying symptoms of epilepsy. The student nurses and all health professionals should be given the responsibility to teach the primary school teachers regarding emergency management as well as first aid management

#### 2. Nursing Practice

The nurses should make teachers about early recognition of children with epilepsy so as to prevent complication. Nurse should act as motivator, advocator and a resourceful person in case of emergency situations. 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, Aganwadi workers and children regarding the management of epilepsy in school children.

#### 3. Nursing Administration:

Nurses as administrator should plan and motivate teachers regarding first aid management. Nurse as an administrator plays an important role in educating the professional and make policies and also educate them regarding referral services

#### 4. Nursing Research

Research is required to improve knowledge regarding first management of epilepsy and also required to improve attitude and practice. Findings of study can motivate others to conduct further research.

### Conclusion:

The study is concluded that teaching planed programme was effective to enhance knowledge among school teachers regarding first Aid Management of Epilepsy. The overall findings of the study showed that there is a significant association found between the levels of knowledge among the school teachers with their source of previous information.

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