

Original Research Article

## **A Study to Assess the Effectiveness of Structured Teaching Program on Knowledge Regarding First Aid Management of Epilepsy Among Family Members of Patients with Epilepsy in K.L.E.S Dr. Prabhakar Kore Hospital and MRC, Belagavi, Karnataka.**

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### **ABSTRACT**

Epilepsy is one of the oldest diseases known to human. The term epilepsy is derived from the Greek word "epilamabavian" meaning is "to seize or to take hold of". According to Hippocrates it was a disease of the brain. The incidence is about 1 in every 200 to 300 persons. The epilepsy is a symptom complex of several disorders of brain function characterized by recurring seizures. Thus, epilepsy is not a disease but a symptom. There may be associated loss of consciousness, excess movement or loss of muscle tone or movement, disturbances of behavior, mood, sensation, and perception.

Sudden unexplained death in epilepsy (SUDEP) occurs in small percentage of person with epilepsy. An effective anticonvulsant should control seizures and also prevent recurrent seizure activity. In many settings nurses and parents focus on individual treatment. The role of nurse in the management and education of patient with epilepsy and their family is most important. Nurses are highly valid for providing care, advice and support to the patients with epilepsy and their family members.

**Key words:** effectiveness, Structured teaching program, knowledge, first aid management of epilepsy, family members.

### **INTRODUCTION**

**Epilepsy is not a disease. It is a sign or symptom of an underlying neurological disorder.**

Epilepsy is a common medical and social disorder or group of disorders with unique characteristics. Epilepsy is usually defined as a tendency to recurrent seizures. The word "epilepsy" is derived from Latin and Greek words "epiamabavian" meaning is "to seize or to take hold of". According to Hippocrates it was a disease of the brain. In later ages it becomes known as "the falling sickness" with the victim being consigned to as glum as for the insane. Regardless of the insight gained into epilepsy, lack of knowledge, stigma and fear are associated with this problem. <sup>[1]</sup>

Epilepsy is a neurological disorder characterized by unprovoked, recurring seizures that disrupt the nervous system and can cause mental and physical dysfunction. <sup>[2]</sup>

This disturbance occurs due to the uncontrolled over activity of brain cell, and is seen in as a seizure that can last for several second, minute or occasionally hours. <sup>[3]</sup> There may be associated loss of consciousness, excess movement or loss of muscle tone or movement, disturbances of behavior, mood, sensation, and perception. <sup>[4]</sup>

Based on the clinical features of the attack the seizures are classified in to five groups, as Grand mal (major or generalized), petit mal, psychomotor, jacksonian and focal, miscellaneous (myoclonic, akinetic) seizures. <sup>[5]</sup>

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An effective anticonvulsant should control seizures and also prevent recurrent seizure activity. [6] First aid management is the immediate treatment given to the victim of an accident or sudden illness, before medical help is obtain. [7]

In many settings nurses and parents focus on individual treatment. The role of nurse in the management and education of patient with epilepsy and their family is most important. Nurses are highly valid for providing care, advice and support the patient with epilepsy. [8]

In many settings nurses and parents focus on individual treatment. The role of nurse in the management and education of patient with epilepsy and their family is most important. Nurses are highly valid for providing care, advice and support the patient with epilepsy. [1]

## MATERIALS AND METHODS

A evaluative study was conducted on Structured Teaching Programme for family members of patient with epilepsy regarding first aid management of epilepsy in K.L.E Dr. Prabhakar Kore Hospital and MRC, Belagavi using a one group pretest and post test research design. A study was conducted on 30 members in K.L.E Dr. Prabhakar Kore Hospital and MRC, Belagavi, to assess their knowledge regarding first aid management of epilepsy. Purposive sampling technique was used for sample selection. The structured interview schedule is used in the study consists of 2 sections, namely section A and B. Section A consists of 9 questions seeking the demographic data of the subjects. Section B consists of 30 multiple choice items related to knowledge items with 4 options. A scoring system is developed for the items. Each correct answer is assigned a score of 'one' and wrong answer a score of 'zero'. The total score of section B is 30. The collected data was tabulated and analyzed in terms of descriptive and inferential statistics.

## RESULTS

TABLE 1: The data presented in table 1 indicates that

1. Indicates the distribution of respondents by age. Majority of the respondents 11(36.67%) are belongs to the age group of 15-30 and 30-45 year, 8 (26.67%) respondents are belongs to 45-60 year.
2. Indicates the distribution of respondents by Gender. In respondents 18 (60%) are male and 12 (46%) are female
3. Indicates the distribution of respondents by duration of epilepsy illness of the patient. In respondent's family member 13(43.33%) are suffered by epilepsy illness for less than 1 year, 14(46.67%) are suffered for 1-5 years and 3(10%) of respondents are suffered for more than 5 years duration.
4. Indicates the distribution of respondents according to their relationship with the patient. In respondents 4 (13.33%) person's husband or wife, 6 (20%) persons child and 8 (26.67%) person's brother or sister and 12 (40%) person's are other suffered by epilepsy illness's.
5. Indicates the distribution of respondents according to their marital status. Among respondents majority of them 22(73.33%) are married, 8(26.67%) are single and no one is widow or divorced.
6. Indicates the distribution of respondents according to their type of family. Majority of the respondents 17(53.67%) are living in nuclear family, 13(43.33%) are living in joint family and none of them are living in extended family.
7. Indicates the distribution of respondents according to their type of family. Majority of the respondents 17(53.67%) are living in nuclear family, 13(43.33%) are living in joint family and none of them are living in extended family
8. Indicates the distribution of respondents according to their educational status. Majority of the respondents 9(30%) are having secondary and PUC, 2(6.67%) are having primary, 3(10%) are having under graduate and 6(20%) are illiterate

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9. Indicates the distribution of respondents by occupation. Among respondents majority of them 18(60%) are employed and 12(40%) are unemployed.

### SECTION I: Findings of demographic variables of respondents

TABLE-1: Frequency and percentage distribution of respondents to socio demographic variables. n=30

SR.NO.	Demographic variables	Frequency(f)	Percentage (%)
1.	<b>Age</b>		
	15-30	11	36.67%
	31-45	11	36.67%
	46-60	8	26.67%
	above 60	0	0%
2.	<b>Gender</b>		
	Male	18	60%
	Female	12	40%
3.	<b>Duration of illness</b>		
	less than 1 year	13	43.33%
	1 to 5 yr	14	46.67%
	more than 5 yr	3	10%
4.	<b>Relationship of respondents</b>		
	husband/wife	4	13.33%
	father/mother	6	20%
	brother/sister	8	26.67%
	other	12	40%
5.	<b>Marital status</b>		
	single	8	26.67%
	married	22	73.33%
	divorced	0	0%
	widow	0	0%
6.	<b>Religion</b>		
	Hindu	25	83.33%
	Muslim	4	13.33%
	Christian	0	0%
	Others	1	3.33%
7.	<b>Type of family</b>		
	Nuclear	13	56.67%
	Joint	17	43.33%
	Extended	0	0%
8.	<b>Educational status</b>		
	Illiterate	6	20%
	Primary	2	6.67%
	Secondary	9	30%
	PUC	9	30%
	under graduate	3	10%
	post graduate	1	3.33%
9.	<b>Occupation</b>		
	employed	18	60%
	unemployed	12	40%

### Section II: Findings related to the effectiveness of structure teaching programme by comparing the pre-test and post-test knowledge scores.

TABLE -2: Comparison of pre and Post test knowledge level of respondents regarding first aid management of patient with epilepsy. n= 30

Knowledge Score	Category	Pre test		Post test	
		Frequency	Percentage	Frequency	Percentage
<10	Poor	10	33.33%	0	0%
10-20	Average	20	66.67%	19	63.33%
> 20	Good	0	0%	11	36.67%
Total		30	100%	30	100%

Table 2 shows the comparison of pre and post test knowledge level of respondents regarding first aid management of patient with epilepsy. When comparing, in pre test majority of the respondents 10(33.33%) have poor knowledge, where as in post test nobody is having inadequate knowledge; 20(66.67%) respondents are having average knowledge in pre test, where as in post test 19(63.33%) respondents have average knowledge. In pre test nobody is having

good knowledge when comparing to post test 11(36.67%) respondents are having good knowledge .It shows that there is an increase in knowledge score in post test after the structured teaching program.

TABLE-3:Mean, median, mode standard deviation and range of knowledge scores of subject regarding first aid management of epilepsy. n=30

Area of Analysis	Mean	Median	Mode	Standard Deviation	Range
Pre-test	9.96	10	11	3.24	13
Post-test	19.33	18	18	4.50	15
Differences	9.37	8	7	1.26	2

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TABLE 3 reveals that difference between pre-test and post-test score showed that over all difference in between pre-test and post-test in mean was 9.37, median was 8, mode was 7, standard deviation was 1.26 and range was 6.

TABLE-4: Comparison of pre-test and post -test knowledge score of respondents regarding first aid management of patient with epilepsy by using Paired “t” test. n=30

Pre test		Post test		Paired t-value	P value	Significance
Mean	SD	Mean	SD			
9.96	3.24	19.33	4.50	11.14	0.05	Significant

(p<0.05)

Table 4 represents the difference between pretest and post test knowledge scores of respondents regarding first aid management of patient with epilepsy. The paired t- value at 5% level of significance is 11.14 (P< 0.05), which indicates that there is a significant difference between pre and post test knowledge scores among respondents regarding first aid management of patient with epilepsy. Hence the hypothesis H<sub>1</sub> - There is a significant difference between pretest and post test knowledge scores of family members of patient with epilepsy is accepted.

### Section III: Findings related to the association between pre test and post-test knowledge scores of respondents regarding first aid management of epilepsy with their selected demographic variables.

TABLE-5: Association between pre-test and post- test knowledge scores of respondents with selected demographic variables.

Sr. No.	Socio Demographic Variables	Knowledge Score Of Respondents			Chi-Square Value	
		Good	Average	Poor	Calculated Value	Table Value
<b>1.</b>	<b>Age</b>				1.54	12.59
	15-30	3	6	2		
	30-45	2	8	1		
	45-60	1	5	2		
	above 60	0	0	0		
<b>2.</b>	<b>Gender</b>				0.13	5.99
	male	4	11	3		
	female	2	8	2		
<b>3.</b>	<b>Duration of epilepsy illness</b>				2.307	9.49
	less than 1 year	4	7	2		
	1 -5 years	2	10	2		
	more than 5 years	0	2	1		
<b>4.</b>	<b>Relationship of respondents</b>				1.23	12.59
	husband/wife	1	2	1		
	father/mother	1	4	1		
	brother/sister	1	6	1		
	others	3	7	2		
<b>5.</b>	<b>Marital status</b>				3.24	12.59
	single	3	3	2		
	married	3	16	3		
	divorced	0	0	0		
	widow	0	0	0		
<b>6.</b>	<b>Religion</b>				9.41	12.59
	Hindu	5	16	4		
	Muslims	1	2	1		
	Christian	0	0	0		
	Others	0	1	0		
<b>7.</b>	<b>Type of family</b>				0.782	9.49
	Nuclear	4	11	2		
	Joint	2	8	3		
	Extended	0	0	0		
<b>8.</b>	<b>Educational status</b>				15.19	18.31
	Illiterate	1	3	2		
	Primary	1	1	0		
	secondary	1	8	0		
	PUC	2	5	2		
	under graduate	1	1	1		
	post graduate	0	1	0		
<b>9.</b>	<b>Occupation</b>				0.32	5.99
	employed	3	12	3		
	unemployed	3	7	2		

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The findings of table 5 reveals that the variables age, gender, duration of epilepsy illness, relationship of respondents, marital status, religion, type of family, educational status, occupation are independent of each other. The chi-square calculated value is less than the chi-square table value, reject the hypothesis. Hence there is no association between knowledge scores and demographic variables.

## DISCUSSION

### Section I: Findings of demographic variables of respondents.

- Majority of the respondents 11(36.67%) are belong s to the age group of 15-30 and 30-45 years, 8 (26.67%) respondents are belongs to 45-60 years and none of them are belongs to above 60 years of age.
- Among respondents 18(60%) are male and 12(46%) are female.
- Among respondent's family member 13(43.33%) are suffered by epilepsy illness for less than 1 year, 14(46.67%) are suffered for 1-5 years and 3(10%) of respondents are suffered for more than 5 years duration.
- In respondents 4(13.33%) person's husband or wife, 6(20%) persons child and 8(26.67%) persons brother or sister and 12(40%) person's are suffered by epilepsy illness.
- Among respondents majority of them 22(73.33%) are married, 8(26.67%) are single and no one is divorced and 2(6.67%) are widow.
- Among respondents majority of them 25(83.33%) are Hindu, 4(13.33%) are Muslim, 3(10%) are others and none of them are Christian.
- Majority of the respondents 17(53.67%) are living in nuclear family, 13(43.33%) are living in joint family and none of them are living in extended family.
- Majority of the respondents 9(30%) are having secondary and PUC, 2(6.67%) are having primary education, 3(10%) are having under graduate and 6(20%) are illiterate.

- Among respondents majority of them 18(60%) are employed and 12(40%) are unemployed.

### Section II: Finding related to effectiveness of structure teaching programme in terms of comparison of pre test and post test knowledge scores regarding first aid management of epilepsy.

The third objective of the study is to find the effectiveness of structured teaching Programme, compare the pre test and post test knowledge scores of family members regarding first aid management of epilepsy.

In the present study, the post test mean score was 19.33 with the standard deviation of 4.50 when comparing to pre test mean knowledge score 9.96 with standard deviation of 3.24, it was significantly higher and computed paired 't' value 11.14 is higher than the table value --- ---, which shows the structure teaching programme was effective at  $P < 0.05$  level, so  $H_1$  is hypothesis is accepted

### Section III: Findings related to the association between pre test and post-test knowledge scores of respondents regarding first aid management of epilepsy with their selected demographic variables.

The fourth objective of the study is to associate pre and post test knowledge of family members regarding first aid management of epilepsy with their selected demographic variable. The study result shown that there is no significant association between pre-test and post test knowledge scores of respondents regarding first aid management of patient with epilepsy and selected demographic variables.

The study findings revealed that the structure teaching programme was effective in terms of gaining in knowledge level of family members of patient with epilepsy regarding first aid management of epilepsy, so  $H_2$  hypothesis is rejected.

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## CONCLUSION

The challenges for patient care in the future are massive. The work environment of the nurse is dramatically different from any other time. Most of the nurses working in an acute or emergency hospital setting will encounter patients with epilepsy. An improper handling of epilepsy patient may lead to many complications. Nurses should have skills to take care of patients and provide timely intervention to minimize the associated problems and complications while the patients are undergoing seizure. Caring for a patient with seizure requires problem solving and knowledge application skill. The findings of the study could be utilized as a basis for in-service education of nurses. So that, a constant awareness and clear understanding may be created regarding epilepsy, and its first aid management among nurses then only they can convey the needed information to the patients, family members of patient, community people and other health care team members.

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**Conflict of Interest:** Nil

**Source of Finding Self or other:** Self

**Ethical Clearance:** Ethical clearance was obtained from institutional ethical committee of K.L.E Institute of Nursing Sciences, Belagavi.

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