

A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE OF MOTHERS REGARDING MANAGEMENT OF EPILEPSY IN CHILDREN

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DOI No. – 08.2020-25662434

Abstract

Epilepsy was a neurological disorder which was quiet complex and epilepsy – related seizures can differ widely in terms of severity and in parts of the brain affected. Often, individual with epilepsy have other co-existing health conditions that can significantly affect person's health as well as emotional, psychological and social well-being. Parents responsibility is to take care of certain specific biological and psychological must make sure the survival and healthy development of the kid, future adult and also to take care of optimum health of the children to enjoy their childhood. A pre-experimental with one group pre-test and post-test research design was used in this study. Convenient sampling technique was used to select the sample and the sample size was 60 mothers of areas of kharar. Data were collected by using structured interview schedule. Analysis was done by using descriptive and inferential statistics. Result showed that out of 60 samples the pre test Mean score of mothers was 13.5 (SD= 2.487) and post test mean score was 26.02 (SD= 5.720). The comparison of pre and post test knowledge of mothers reveals that the improvement mean was (12.52) with Standard deviation (3.233). The calculated' test value was (29.982) which was found greater than the table values (2.045). There for the hypothesis H_1 was accepted". No significant relationship was found in between the post test knowledge scores of mothers regarding management of epilepsy in children with age, religion, mother's education, mother's occupation, and residential areas, type of family, family monthly income and sources of information with post test knowledge scores of mothers regarding management of epilepsy in children.

Keywords: Knowledge, structured teaching programme, Effectiveness, epilepsy

INTRODUCTION

Children comprise one third of our population and every one of our future and their health is our foundation. The childhood period is also a vital period because many of the health problems will arise from this period and most of the studies reveal that many children are suffering from one or the other disease. Our responsibility is to take care of certain specific biological and psychological must make sure the survival and healthy development of the kid, future adult and also to take care of optimum health of the children to enjoy their childhood. But unfortunately children are in danger of diseases, the reason may be many. One of such disease is seizure disorder which threatens lifetime of the child.[1]

Seizures are the foremost common pediatric neurologic disorder from very birth to adolescents is seen to be problematic almost throughout the life. The convulsions occur due to disturbances of the brain functions resulting from abnormal excessive electrical discharge from the brain. Whenever a person has two or more unprovoked seizure; a preliminary diagnosis of epilepsy is

established. The incidence of epilepsy is approximately 0.32-0.5% in different populations throughout the world and its prevalence has been estimated to be 5-10 people per 1000. [2]

There are three sorts of epileptic seizures: partial seizures, generalized seizures, and unclassified seizures. Partial seizures are initiated in a cerebral hemisphere of the brain and are further classified based on whether or not consciousness is lost in the individual.[3] A simple partial seizure involves no loss of consciousness but may involve motor symptoms, sensory symptoms, and autonomic or psychic symptoms. Complex partial seizures may begin as a simple partial seizure and progress to a complex partial seizure. Complex partial seizures involve a loss of consciousness and may involve some behavioral automatisms (unconscious repetitive motor actions). It's currently thought that straightforward partial seizures usually have unilateral hemispherical involvement, while complex partial seizures usually have bilateral hemispherical involvement. [4]

Epilepsy management techniques include the use of deep brain stimulators and vagus nerve stimulators. Deep brain stimulators are implanted within the brain and send impulses to the cerebellum to increase seizure control by stimulating deep brain structures, while vagus nerve stimulators are implanted near the clavicle and send an electrical impulse to stimulate the vagus nerve in the neck. [5]

Another treatment option for epilepsy is surgical removal of the brain tissue where the seizures originate (i.e., temporal lobectomy) but this system isn't often utilized in children. Another possible precaution for epilepsy in children is avoidance of triggers for seizures. [6] Many children with epilepsy have triggers for seizures like foods, scents, or other environmental factors. If these triggers are often identified, seizures could also be more easily controlled. When utilized in some combination, all of those treatment methods have shown effectiveness, however, there are few treatments that keep individuals entirely seizure free. [7]

The parents should involve themselves in matters concerning their Childs seizure disorder. It is important to involve the siblings of the epileptic child helps to develop better understanding of condition as they may have all kinds of fears and misinformation about the disease. [8] In many families, the mother tends to come closer to the situation. Often, she is the parent who visits the doctor, or meets the teacher or talks to other parents at the local level. As she learns more about the epilepsy, it becomes much easier to adjust with the idea of having a child with seizure disorder. [9]

The mothers of children were anxious about the disease condition and also they had many doubts regarding the etiology, risk factors and both medical and home management of children with seizure disorder. It is very important to adhere with therapeutic regimen and the care giver should reinforce to avoid skipping of antiepileptic drugs. It is also important to give attention to the emotional aspect of the child. So it is found that a structured Teaching Programme will be a guide for mothers regarding management of seizure disorder at home. [10]

OBJECTIVES OF THE STUDY

1. To assess the pretest knowledge of mothers regarding management of the epilepsy in children.
2. To develop and administer Structure Teaching Programme of mothers regarding management of the epilepsy in children.
3. To assess the post-test knowledge of mothers regarding management of the epilepsy in children.

4. To evaluate the effectiveness of Structure Teaching Programme on knowledge of mothers regarding management of the epilepsy in children.
5. To find out association between post test knowledge of mothers regarding management of the epilepsy in children with their selected demographic variables.

OPERATIONAL DEFINITION

- **Effectiveness:** It is extent to which the knowledge of mothers improved with regard to management of the epilepsy in children after the implementation of Structured Teaching Programme as evidence by difference with in the pre-test and post test score.
- **Structured Teaching Programme:** It refers to systematically organized instruction and discussion to impart Knowledge regarding management of the epilepsy in children among mothers.
- **Knowledge:** It refers to correct response of mothers to the question regarding knowledge of management of the epilepsy in children
- **Management:** In this study it refers to take care of children with epilepsy and prevent its complication.
- **Epilepsy:** a neurological condition characterized by recurrent seizures due to abnormal disorderly discharging of the brain's nerve cells, leading to a short lived disturbance of motor, sensory or mental function.
- **Mothers :** It refers to biological mothers of children under 12 years of age with epileptic disorder

HYPOTHESIS

On the ideas of objectives and review of literature, the subsequent research hypothesis are formulated

H1: There will be significant difference between mean pre-test and post-test knowledge scores of mothers attending Structured Teaching Programme on management of the epilepsy in children

H2: There will be association between the post-test knowledge score of mothers regarding management of the epilepsy in children with their selected socio-demographic variables.

ASSUMPTIONS

- The structured teaching programme helps to improve mother's knowledge regarding management of the epilepsy in children, which will enable them to provide good care to their children and help to prevent complication.
- Mothers have some basic knowledge regarding management of the epilepsy in children.
- The mothers will have an interest to know about the management of epilepsy in children

DELIMITATIONS

- The study will only be limited to 60 mothers.
- Mothers who are present during the time of data collection.
- Mothers who are children under 12 years of age.

Therefore, the investigator felt that there is a need to enhance the knowledge of mothers regarding management of epilepsy in children. So that mothers will be able to manage the epileptic condition among children at the home.

MATERIALS AND METHODS

- **Research Approach:** - The research approach adopted in the present study was evaluative approach, which was considered as appropriate because this study aims to assess the effectiveness of structured teaching programme and compare the pre test and post test knowledge of mothers regarding management of epilepsy in children.
- **Research design:** - The research design selected for the present study is Pre-experimental with one group pre-test and post-test design.

Schematic representation of research design

O_1 X O_2

- O_1 (Pre test): Assessment of knowledge regarding management of epilepsy in children.
- X (Intervention): Administration of structured teaching program regarding management of epilepsy in children after pre-test.
- O_2 (Post test): Assessment of knowledge regarding management of epilepsy in children after one week
- **Sample size and sampling technique:** - In the present study, the sample consists of 60 mothers and Convenient Non random sampling technique was used to select the sample.
- **Method of data collection:** - It was felt that structured interview schedule is suitable to make extensive enquiries and can lead to fairly reliable and it was showed that the general information collected through this structured interview schedule is comparatively more accurate and allows infirmity in asking questions and objectivity in recording the responses.
- **Description of Tool :-** The tool consists of two sections:

Section 1: Consists of socio demographic Performa of the mothers.

The first section of the tool consists of items related to data regarding personal and baseline characters of mothers. It includes age, religion, mother's education, mother's occupation, residential areas, type of family, family income per month in rupees, source of information regarding management of epilepsy in children.

Section 2: Consists of structured interview schedule to assess the knowledge regarding management of epilepsy in children.

The tool consists of 25 items regarding management of epilepsy. The things was closed ended questions especially of multiple choice questions. The total score was 25. Each correct response carried out with one mark. The questions was prepared in English and translated in Punjabi.

The knowledge of respondents were categorized into three categories

KNOWLEGE LEVEL	PERCENT	RANGE OF SCORE
Low knowledge	: Below 50%	1-13
Average knowledge	: 51% - 75%	14-19
High knowledge	: Above 75%	20-25

- **Reliability of the tool:** - Reliability of the tool was determined by the split half method. By using Karl Pearson's co-efficient of co-relation method "r" value is obtained ($r^1 = 0.91$). It shows that the tool was highly reliable for the ultimate study.
- **Data collection procedure:** - Data were collected by using structured interview schedule through multiple choice questions and structured teaching programme was intervened,

again after a gap of seven days post test was conducted with the same tool. Wherever necessary, hard terms were cleared by explaining in simple terms.

- **Plan of data analysis:** - Analysis and interpretation of data was done according to the objectives using descriptive and inferential statistics. **Descriptive statistics:** - Frequency and percentage analysis were used to describe demographic characteristics of mothers. Descriptive analysis mean, standard deviation, mean score percent was used to assess the knowledge regarding management of epilepsy. **Inferential statistics:** Paired t-test was carried out to assess the statistical significance and compare the pre and post-test knowledge scores of mothers. The chi-square χ^2 analysis was used to determine the association between knowledge and selected demographic variables

RESULTS

The analysis and interpretation of data have been organized and presented under the following section.

Table - 1: Frequency and percentage distribution of mothers by their socio demographic variables. N=60

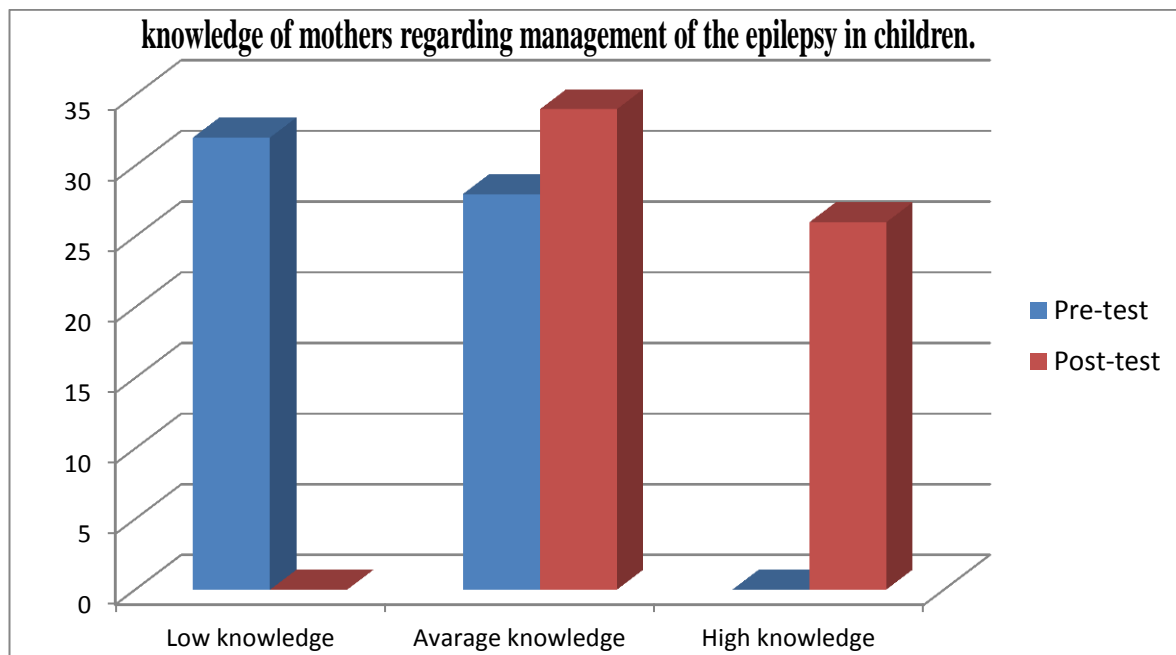
DEMOGRAPHIC VARIABLES		FREQUENCY(F)	PERCENTAGE (%)
Age of the mothers (years)	21-25	22	36.66
	26-30	18	30.00
	31-35	12	20.00
	36-40	08	13.33
Religion	Hindu	18	30.00
	Muslim	06	10.00
	Sikh	32	53.33
	Christian	04	06.66
Mother's education	Primary	28	46.66
	10th	16	26.66
	10+2	12	20.00
	Graduate and above	04	06.66
Mother's Occupation	Govt. Job	11	18.33
	Private job	06	10.00
	House wife	41	68.33
	Others	02	03.33
Residential area	Rural	46	76.66
	Urban	14	23.33
Type of family	Nuclear	21	35.00
	Joint	29	48.33
	Extended	10	16.66
Monthly family income	1000 - 5000	13	21.66
	5001 - 10000	16	26.66
	10001 - 15000	22	36.66
	15001 & Above	9	15.00
Source of information	Mass Media	16	26.66
	Friends	08	13.33
	Family members	29	48.33
	Health personnel	07	11.66

- According age, 36.66% of mothers were in age group of 21- 25 years, 30% were in age group of 26 -30 years, 20 % were in age group of 31 -35 years and 13.33% were in age group of 36 -40 years.
- Religion wise distribution of samples shows that 30% of mothers are Hindu, 10% were Muslim, 53.33% were Sikh and 06.66% were Christian.

- Education wise distribution of samples shows that 46.66% of mothers have completed primary education, 26.66% have completed 10th education, 20% have completed higher secondary education and 06.66 have completed graduate and higher education.
- Majority of the mother occupation were found as 68.33% as house wife, 18.33% have govt. job, 10% have private job and 03.33% have other jobs.
- Majority of the mothers are residing in urban area 76.66% and 23.33% residing in rural area.
- According to type of family, 35% of the mothers have nuclear family, 48.33% have joint family and the 16.66% have extended family.
- Majority of the mothers have family monthly income of Rs 10000 - 15,000/- have 36.66%, followed by Rs 5001-10000/- (26.66%), Rs 1000 - 5000/- (21.66%) and Rs 15,001 and above (15%).
- Majority of the mothers have source of information as a family members 48.33%, followed by Mass media 26.66%, friends 13.33% and Health personnel 11.66%.

TABLE - 2:Frequency and percentage distribution of level of knowledge of mothers regarding management of the epilepsy in children. N=60

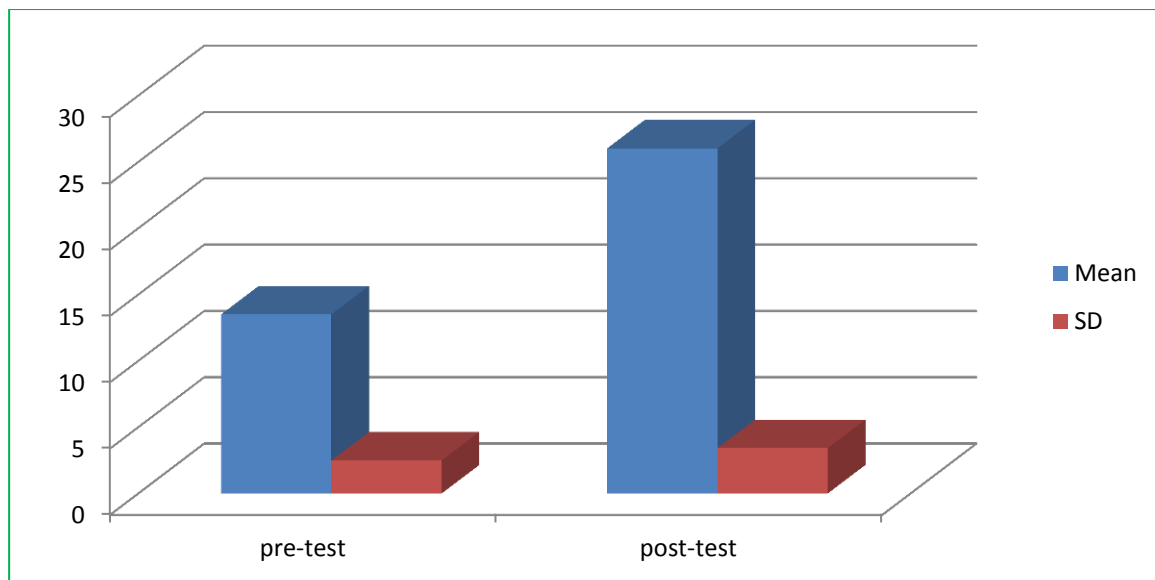
Level of knowledge	PRE TEST		POST TEST	
	Frequency	Percentage	Frequency	Percentage
Low knowledge (0-13)	32	53.33%	0	00 %
Average knowledge (14-19)	28	46.66%	34	56.66%
High knowledge (20-25)	00	00%	26	43.33%



Tables 2 describe the percentage distribution of scores reveals that in Pre test 53.33% mothers have the Low knowledge, 46.66% mothers have Average knowledge and no single informant had high knowledge. The score of post test indicated marked increase in knowledge levels of mothers that is 56.66% Average knowledge, 43.33% High knowledge and it was also interesting to know that 00% respondent in post test obtained low knowledge.

TABLE -3: Mean and standard deviation of pre test and post test knowledge scores in specific areas of management of the epilepsy in children. (N=60)

SPECIFIC AREAS OF MANAGEMENT OF THE EPILEPSY IN CHILDREN	PRE		POST	
	MEAN	SD	MEAN	SD
Overall	13.5	2.487	26.02	5.720
Introduction and Definition	2.85	0.917	4.57	0.621
Cause, Risk factor and Symptoms	2.63	1.041	5.05	1.064
Treatment and Management	3.33	1.036	6.68	1.242
Health Education and General Recommendation	4.68	1.186	9.72	1.738



Mean and standard deviation of pre test and post test knowledge scores of mothers

Table 3 describes that the overall pre test mean score was 13.5 (S.D = 2.487) and in post test it was 26.02 (S.D =5720). The mean post test knowledge score were higher than the mean pretest scores which indicated an improvement in the knowledge level of the respondents after structured teaching programme regarding management of epilepsy in children.

TABLE -4: Comparison of pre test and post test scores regarding management of the epilepsy in children by paired' test N=60

SPECIFIC AREAS OF MANAGEMENT OF THE EPILEPSY IN CHILDREN	Mean Difference	SD Difference	Paired T-Test
Overall	12.52	3.233	29.982
Introduction and Definition	1.717	1.106	12.022
Cause, Risk factor and Symptoms	2.417	1.394	13.433
Treatment and Management	3.350	1.412	18.376
Health Education and General Recommendation	5.033	1.913	20.380

(Table value of 't' for 59 df at 0.05 level of significance is 2.00)

Table 4 describes that Mean difference of (12.52), SD=3.233 of overall knowledge with paired't' value (29.982). Thus it reveals that the mean post test knowledge scores was significantly higher than the mean pre test knowledge scores of mothers"= (29.982), $p < 0.05$. Thus the research hypothesis (H_1) was accepted. It shows that there is a significant difference between pre test and post test knowledge scores of mothers regarding management of epilepsy in children.

TABLE -5: Association between socio demographic variables of mothers with their post test knowledge scores regarding management of epilepsy in children

Variables	Calculated χ^2 value	P Value	Degree of freedom	Table Value	Association
Age of the mothers (year)	0.485	0.486	1	3.841	NS
Religion	0.335	0.563	1	3.841	NS
Mother's education	0.831	0.842	3	7.815	NS
Mother's Occupation	1.078	0.782	3	7.815	NS
Residential area	3.813	0.282	3	7.815	NS
Type of family	1.129	0.770	3	7.815	NS
Monthly family income	3.228	0.520	4	9.488	NS
Source of Information	0.573	0.903	3	7.815	NS

Table 5 describes that the calculated chi square values was less than the table values indicated that there was no significant association between the demographic variables such as age, religion, mother's education, mother's occupation, residential areas, type of family, family monthly income and sources of information with post test knowledge scores of mothers regarding management of epilepsy in children. Hence the hypothesis (H₂) has been rejected.

DISCUSSION

The pre test mean score was 13.5 (S.D = 2.487) and in post test it was 26.02 (S.D = 5.720). Mean difference of (12.52), SD=3.233 of overall knowledge with paired 't' value (29.982). Thus it reveals that the mean post test knowledge scores was significantly higher than the mean pre test knowledge scores of mothers"= (29.982), $p < 0.05$. Thus the research hypothesis (H₁) was accepted. It shows that there is a significant difference between pre test and post test knowledge scores of mothers regarding management of epilepsy in children.

Association was done between demographic variables and post test level of knowledge score of adolescents by using chi-square (χ^2) test. The calculated chi square values was less than the table values indicated that there was no significant association between the demographic variables such as age, religion, mother's education, mother's occupation, residential areas, type of family, family monthly income and sources of information with post test knowledge scores of mothers regarding management of epilepsy in children. Hence the hypothesis (H₂) has been rejected.

CONCLUSION

The pre test Mean score of mothers was 13.5 (SD= 2.487) and post test mean score was 26.02 (SD= 5.720). The comparison of pre and post test knowledge of mothers reveals that the improvement mean was (12.52) with Standard deviation (3.233). The calculated 't' test value was (29.982) which was found greater than the table values (2.045). There for the hypothesis H₁ was accepted". No significant relationship was found in between the post test knowledge scores of mothers regarding management of epilepsy in children with age, religion, mother's education, mother's occupation, and residential areas, type of family, family monthly income and sources of information with post test knowledge scores of mothers regarding management of epilepsy in children.

NURSING IMPLICATIONS

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

- **Nursing Education:** - The findings of the study indicate that more emphasis should be placed in the curriculum for care of epileptic disorder. The nursing curriculum should consist of knowledge related to teaching strategies and various modalities. So, that the

nursing students can use different teaching methods to impart appropriate knowledge for the care of the child with s epileptic disorder. The students learning experience should provide opportunity to conduct health education campaign.

- **Nursing Practice:** - Nursing professionals working in the community as well as in the hospital can understand the importance of health education regarding care of child with epileptic disorder. So that there is a need for developing structured teaching programme and health education on different aspects about epileptic care in order to improve the knowledge regarding care of epileptic child.
- **Nursing Administration:** - The nurse administrator should organize the in-service education training program for nurses and other health care professionals to update their knowledge about care of epileptic child. The nurse administrator should motivate the health care professionals to organize campaign on care among epileptic disorder.
- **Nursing Research:-**The findings of the study serves as a basis for the professional and student nurses to conduct further studies regarding care of child with epileptic disorder. The study will motivate the beginning researchers to conduct the same study with different variables and large scale.

RECOMMENDATIONS

- Similar study can be done by including additional demographic variables.
- Similar study can be undertaken on a large sample for making a more valid generalization.
- A comprehensive study can be conducted between rural mothers and urban mothers.
- Similar study can be undertaken by descriptive study.
- An experimental study can be undertaken with control group for effective comparison.

ACKNOWLEDGMENTS

We would like to thank the investigator, and study participants of this study.

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