



A research paper on the effectiveness of structured teaching programme among care givers on managing patients with epilepsy at a tertiary centre in south Kerala

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DOI: <https://doi.org/10.33545/nursing.2024.v7.i2.B.403>

Abstract

Aims and Objectives: 1. To assess the knowledge, attitude and practice of caregivers on management of epilepsy 2. To prepare and administer an instructional module for caregivers on management of epilepsy.

Materials and Methods: The purpose of the study is to assess the effectiveness of structured teaching programme among caregivers on managing patients with epilepsy. In the present study to evaluate the effectiveness of structured teaching programme among caregivers on managing patients with epilepsy the investigator selected quantitative approach. The setting of the study was Neurology outpatient department of KIMS, Hospital, and Thiruvananthapuram. The population selected for the present study was care givers of epileptic patients attending Neurology outpatient department at KIMS Hospital, Thiruvananthapuram. The sample consisted of 50 care givers of epileptic patients and the sampling technique used for the study was convenience sampling technique

Results: 3/4 Majority of the caregivers (44%) belonged to the age group 31-40 yrs. and females are the predominant category (66%) among the caregivers and all the caregivers were married (100%). 3/4 Maximum respondents 60% had high school education and 4% had postgraduation. Majority of the caregivers were housewives (56%). 40% caregivers belonged to the income group of < 5000 and 6% belonged to the income group of > 30000. 3/4 Majority (80%) of caregivers belonged to nuclear family and 76% were residing in rural areas. 3/4 46% of caregivers depended on television as their source of getting information and 26% had television, newspaper and radio as their source of information.

Keywords: Structured teaching programme, epilepsy, knowledge, attitude, practice

Introduction

Epilepsy is a chronic disorder characterized by recurrent unprovoked seizures, and affects people of all ages. It is a common health problem, which carries along with it a variety of medical, social, psychological and economic burden ^[1]. The term epilepsy is derived from the Greek word 'epilambanem' meaning 'to seize' or to attack. Epilepsy was referred to as the sacred disease by the ancient Greek, the people who believed it to be the result of possession by the God. In many societies, however, epilepsy was thought of less benignly as the product of demonic possession and even now it often remains as a misinterpreted and stigmatizing disorder ^[2].

Epilepsy is more likely to occur in young children or people over the age of 65 years. It observes no cultural, geographical, racial or economical boundaries. It can occur to anybody at any time ^[3]. Epilepsy is a tendency to get recurrent seizure. Seizures are the result of sudden, usually brief, electrical discharges in a group of brain cells called neurons ^[4]. The causes of epilepsy are perinatal problems, head injuries/birth trauma, central nervous system infection, brain tumors, brain attack/stroke, cerebrovascular disease, complex febrile convulsions, toxic and metabolic disturbances, congenital malformation of CNS, idiopathic.

Among them idiopathic constitutes 70%. Behavioral and cognitive problems are also encountered in approximately 20-30% of these patients.

Other problems encountered in them range from lack of self-respect, depression and poor attention span to academic failures, family disregard and social abuse. The causes of these abnormalities are multifactorial and are related to underlying seizure activity, treatment modality and psychosocial issues, etiology, genetics, adverse effects of antiepileptic drugs and ongoing seizure activity. Identification of these behavioral disorders and its early intervention will go a long way in improving the quality of life among epileptics ^[5]. Epilepsy is a multifaceted chronic disorder which has diverse and complex effects on the overall wellbeing or subjective quality of life (QOL) of the patients.

Discrimination against persons suffering from epilepsy is not uncommon. This is often due to sudden falls and convulsive episodes at unexpected times in public places resulting in rejection. Sometimes, the social discrimination against these persons with epilepsy may be more devastating than the disease itself. Children with epilepsy may be rejected from their classes because of frequent seizures which makes their teachers and fellow students

uncomfortable with their presence in class. Also, some others are not enrolled in schools once the school authority becomes aware that such a child has epilepsy. Other social aspects of life are also adversely affected by the disease. Older children and adults with epilepsy usually have problems with adaptation, institutionalization, and access to public accommodation. The disease may also cause unemployment and difficulty to marry when children get to adulthood. Affected persons may be rejected from social events because there are people who still believe that the disease may be transmissible by contact with the patient's saliva. The attitude toward people with epilepsy is influenced by the degree of knowledge of the condition. The misunderstanding of epilepsy and the social stigma of those living with the disorder often leads to feelings of isolation and low self-esteem [6].

Awareness, knowledge and attitudes (AKA) regarding epilepsy have been shown to be important in reducing the impact of seizures, potentially harmful self-management practices and the emotional impact of both seizures and treatment [7].

Materials and Methods

Setting of the study: Setting of the study was Neurology outpatient department of KIMS Hospital, Thiruvananthapuram.

Population: Population selected for the present study was care givers of epileptic patients attending Neurology outpatient department at KIMS Hospital, Thiruvananthapuram.

Sample and sampling technique: The sample consisted of 50 care givers of epileptic patients and the sampling technique used for the study was convenience sampling technique

Inclusion criteria a. Caregivers of epileptic patients aged 20 years and above attending outpatient department of KIMS Hospital. b. Both female and male caregivers of epileptic patients c. Caregivers who are able to read English or Malayalam.

Exclusion criteria a. Caregivers who are not willing to participate. b. Caregivers who are health professionals.

Tool/Instruments: The tool was prepared in three domains knowledge, attitude and practice. Knowledge and practice questionnaire and attitude scale were prepared by the investigator herself after an extensive review of related literature and by consulting experts in the area.

Description of the tool

Tool 1: A structured questionnaire which consists of three sections, section A, B and C.

Section A

1. Sociodemographic profile such as age, sex, marital status, education, occupation, monthly income, source of information, type of family, area of residence of the caregiver and duration of caring.
2. Clinical data of patient such as age, sex, marital status, education, occupation, type of epilepsy, duration of treatment and family history of epilepsy.

Section B: Structured questionnaire for assessing the knowledge of caregivers regarding management of epilepsy. It consisted of 21 items. Each item carries a maximum score

of one except for three items, which have a maximum score of three. No score has been allotted for wrong answers and unattended questions. Total score allotted for knowledge was 27. A score of 21-27 is graded as good knowledge, 14-20 as average knowledge and score <14 as poor knowledge
Section C: Structured questionnaire for assessing the practice of caregivers regarding management of epilepsy. It consisted of 10 items, among them each items carries one score except two items carry a score of three. Total score allotted was 14. Based on the total scores practice is graded as 11-14 good practice, 7-10 average practice and <7 poor practice.

Tool 2: Attitude scale which is a five-point Likert scale for assessing the attitude of caregivers regarding management of epilepsy with options strongly agree, agree, neutral, disagree, strongly disagree. It consists of 15 items; among them 7 items are negatively worded and 8 items are positively worded. The maximum score for each item is 5 and minimum score is one. Total score allotted was 75. Based on the total scores attitude is graded as 57-75 good attitude, 38-56 average attitude and <38 poor attitude.

Content validity: After developing the tool and content, it was given to 7 experts for validity 5 from the field of Medical Surgical Nursing and 2 Neurologist. The necessary corrections suggested by the experts are considered and the tool was modified before the pilot study. The tool was translated into Malayalam language by an expert and was retranslated into English which was compared with original and it was approved by the concerned guide.

Reliability of the tool: Reliability was ensured by doing split half method. The reliability of knowledge, practice and attitude tool was 0.876, 0.827 and 0.811 respectively and the tools were found reliable.

Description of intervention: A structured teaching programme for caregivers on management of epilepsy was the intervention. Teaching session was planned for 60 minutes. Content was prepared by the investigator herself and was given to 7 experts for content validity. Modifications were made based on the suggested corrections. The lesson plan included the definition of epilepsy, etiology and risk factors of epilepsy, phases of epilepsy, types of epilepsy, warning signs of seizures, triggers factors of seizures, diagnostic measures of epilepsy, treatment of epilepsy and coping strategies for living with epilepsy. After the teaching programme, their experiences were shared, and doubts cleared. The caregivers were given a module on management of epilepsy for further reference.

Pilot study: Pilot study was conducted in 5 samples who satisfied the inclusion criteria. The investigator obtained approval from the college authority, the ethical committee, and Head of division of neurology. Pilot study was conducted from 31.12.11 to 23.01.12. Samples were selected from the neurology OPDs after obtaining informed consent. During pretest, the investigator assessed the knowledge, attitude and practice of the study participants using knowledge and practice questionnaire and attitude scale. On the same day itself, the investigator administered a

teaching programme and instructional module to the caregivers. Three weeks after the structured teaching programme a post test was conducted on the same group. The findings of the pilot study were analyzed statistically and presented before the research committee. After the pilot study few modifications were made in the tool. They were as follows

- Addition of two more variables like relationship with the patient and duration of caring to the sociodemographic profile of the caregiver and type of epilepsy, duration of treatment, medications taken, age of onset of epilepsy are included in the clinical data of the patient.
- Age was previously given as range; it was changed to specify the actual age.
- Some of the options were changed from knowledge (Qn.no: 2,3,10,15,20) and practice (Qn.no:23) questionnaires
- Two questions were excluded from the knowledge questionnaire.

Based on the modifications the tool was finalized for the actual study.

Data collection process: Data collection started after getting permission from the institutional review board of KIMS, and HOD of neurology department of KIMS Hospital, Thiruvananthapuram. The study was conducted on 50 samples who satisfied the inclusion criteria. The study period was from 14.2.11 to 12.4.12. Samples were selected from the neurology OPDs after obtaining informed consent. Rapport was established with patients and caregivers and the purpose of the study was explained to them. The investigator assessed the knowledge, attitude and practice of the study participants by using questionnaire. It took 20 minutes for collecting data from each client. On the same day after the pretest, the investigator administered the teaching programme individually to each caregiver and instructional module on management of epilepsy was given. Three weeks after structured teaching programme a post test was conducted with the same group.

Plan for data analysis: Data were analyzed using descriptive and inferential statistics. Socio demographic variables were presented as frequency distribution and percentages illustrated with tables and figures. Knowledge, attitude and practice were analyzed by descriptive statistics (mean and standard deviation) Effectiveness of structured teaching programme was analyzed using inferential statistics (paired t test) Association between knowledge, attitude and practice and selected socio demographic variables was analyzed by chi square test.

Results

Socio demographic data of the caregivers and clinical data of the patient: Majority of the caregivers (44%) belonged to the age group 31-40 yrs and females are the predominant category (66%) among the caregivers and all the caregivers were married (100%). Maximum respondents 60% had high school education and 4% had post-graduation. Majority of the caregivers were housewives (56%). 40% caregivers

belonged to the income group of < 5000 and 6% belonged to the income group of > 30000. Majority (80%) of caregivers belonged to nuclear family and 76% were residing in rural areas. 46% of caregivers depended on television as their source of getting information and 26% had television, newspaper and radio as their source of information.

Majority of caregivers (44%) were caring epileptic patient for less than 2yrs and 14% were caring for more than 10 yrs. 58% of the caregivers were mothers and 30% were spouses and 88% of epileptic patients had no family history of epilepsy.

Knowledge, attitude and practice of caregivers on management of epilepsy: among the caregivers, 42% had poor knowledge, 42% had average knowledge and only 8% had good knowledge. In attitude 58% had average attitude and 42% had good attitude. In practice 20% had poor practice, 46% had average practice and only 34% were following good practice on management of epilepsy before the intervention. After the intervention 96% of caregivers had good knowledge, 98% had good practice and all the caregivers (100%) had good attitude on management of epilepsy. The mean post-test knowledge score was 24.94 the mean pretest knowledge score 14.60. The 't' test showed that there is a statistically significant gain in the knowledge after the intervention ($p < 0.001$). The mean pretest attitude score was 56.7, whereas mean post-test attitude score was 70.6. The 't' test showed that there is statistically significant change in the attitude after the intervention ($p < 0.001$). The mean posttest practice score is 13.06 whereas the mean pretest practice score 8.7. The 't' test showed that there is a statistically significant improvement in the practice after the intervention ($p < 0.001$). These findings showed that structured teaching programme was effective in improving the knowledge, attitude and practice of caregivers on management of epilepsy.

Association between the knowledge, attitude and practice of caregivers and socio demographic variables like age, sex, education, marital status, occupation, income, type of family of caregivers, duration of caring, relationship with the patient and family history of epilepsy for the patient: The findings showed that there is statistically significant association between level of knowledge of caregivers and area of residence ($p < 0.05$) and no significant association between level of knowledge and other sociodemographic variables like age, sex, education, marital status, occupation, income, type of family of caregivers, duration of caring, relationship with the patient and family history of epilepsy for the patient ($p > 0.05$) There was no significant association between attitude, practice and the sociodemographic variables like age, sex, education, marital status, occupation, income, type of family, area of residence of caregivers, duration of caring, relationship with the patient and family history of epilepsy for the patient ($p > 0.05$).

Summary

It deals with summarization of the research study, effectiveness of structured teaching programme among caregivers on managing patients with epilepsy attending KIMS Hospital Thiruvananthapuram. The study was

conducted using one group pretest- posttest design. 50 caregivers of epileptic patient who satisfied the inclusion criteria were selected by convenience sampling. A pretest was administered to assess their baseline knowledge, attitude and practice regarding management of epilepsy. On the same day itself, structured teaching programme was administered and all were provided with an instructional module on management of epilepsy for further reference. Three weeks after the teaching programme a post test was conducted with the same questionnaire while they came for follow up. Data coding was done by the investigator herself and data were analyzed by using descriptive and inferential statistics. The study results showed a significant improvement in the knowledge, attitude and practice of caregivers after the administration of the structured teaching programme regarding management of epilepsy. From the study it is evident that educating people affected by epilepsy and their caregivers will promote an increased awareness on management of epilepsy and help them to develop positive attitude towards epilepsy.

Conclusion

Based on the findings of the study the following conclusions were obtained. The structured teaching programme has a positive effect on the knowledge, attitude and practice of caregivers of epileptic patients. The interventional teaching programme made the clients more aware of the disorder 'epilepsy'. In the light of the present study it is concluded that structured teaching programme can significantly improve the knowledge, attitude and practice of caregivers of epileptic patients.

Nursing implication

The findings of the study have implications in the field of nursing education, nursing practice, nursing administration and nursing research.

Nursing education

1. The findings of the present study would lead the nurse educators and students to understand the areas of need for education of patients and caregivers on management of epilepsy.
2. Regular in-service education programmes can be conducted to influence the staff nurses in updating knowledge towards patient education on epilepsy.
3. The nurses should be equipped with current knowledge and helped to identify their role in patient education through education programme.
4. The educational materials related to epilepsy and its management can be made available in the clinical set up.
5. In the nursing curriculum, more emphasis can be given regarding education for epileptic clients.
6. The student nurses can identify the learning needs of the clients and can provide need based education. Nurse educators and students can together prepare special teaching strategies for epileptic clients.

Conflict of Interest: Not available

Financial Support: Not available

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How to Cite This Article

Raj ABS, Joseph G. A research paper on the effectiveness of structured teaching programme among care givers on managing patients with epilepsy at a tertiary centre in south Kerala. *International Journal of Advance Research in Nursing*. 2024;7(2):86-89.

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