



A pilot study on the importance and efficacy of teaching programme methods among nurses on epilepsy patients at a tertiary centre in south India

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Abstract

Aims & Objectives: The aim is to evaluate the caregivers' knowledge, attitude, and practice regarding the management of epilepsy. 2. To develop and deliver an educational package for caregivers regarding the management of epilepsy [3]. To assess the efficacy of a systematic educational program on the knowledge, attitude, and practice of caregivers on the management of epilepsy. 4. To determine the correlation between the knowledge, attitude, and behaviour of caregivers and specific socio-demographic factors.

Experimental Procedures: The study aims to evaluate the efficacy of a structured teaching program for caregivers in managing patients with epilepsy. The researcher chose a quantitative approach in the current study to assess the efficacy of a structured teaching program for caregivers in managing patients with epilepsy. The investigation was conducted at the Neurology outpatient department of KIMS Hospital in Thiruvananthapuram. Population recruited for the present study was care providers of epileptic patients attending Neurology outpatient department at KIMS Hospital, Thiruvananthapuram. The study included a total of 50 caregivers of patients with epilepsy. The sampling approach employed was convenience sampling.

Results: 3/4 Majority of the caregivers (44%) belonged to the age range 31-40 yrs and females are the prevalent type (66%) among the caregivers and all the caregivers were married (100%). Three-fourths of the respondents, or 75%, had a high school education, while 4% had completed postgraduate studies. 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 lived in rural areas. 3/4 46% of caregivers counted on television as their way of acquiring information and 26% had television, newspaper and radio as their source of information.

Keywords: Epilepsy, care, nursing, research

Introduction

Epilepsy is a chronic illness defined by recurring unprovoked seizures and affects people of all ages. It is a widespread health disease, 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 considered 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 communities, however, epilepsy was regarded of less benignly as the outcome of demonic possession and even now it often stays as a misconstrued and stigmatizing disorder [2].

Epilepsy is more likely to occur in young children or those over the age of 65 years. It observes no cultural, regional, racial or economical barriers. It can occur to anybody at any time [3]. Epilepsy is a predisposition to develop recurring 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 difficulties are also found in around 20-30% of these people [9].

Other difficulties encountered in them range from loss of self-respect, melancholy and low attention span to academic failures, parental neglect and social maltreatment. The

causes of these abnormalities are diverse and are connected to underlying seizure activity, treatment modalities and psychosocial difficulties, etiology, genetics, side effects of antiepileptic medicines and continued 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 those suffering from epilepsy is not uncommon. This is commonly due to sudden collapses and convulsive bouts at unexpected moments in public places leading in rejection. Sometimes, the societal discrimination against these folks with epilepsy may be more damaging than the disease it self [7]. Children with epilepsy may be rejected from their classrooms because of frequent seizures which makes their professors and fellow pupils uncomfortable with their presence in class. Also, some others are not registered in schools once the school officials become aware that such a youngster has epilepsy. Other social areas of life are also badly affected by the condition [8]. Older children and adults with epilepsy frequently have challenges with adaption, institutionalization, and access to public accommodation. The condition may also cause unemployment and trouble to marry when youngsters grow to adulthood. Affected folks may be shunned from social occasions since there are some who still believe that the disease may be transmissible by contact with the patient's saliva [9]. The attitude toward people with epilepsy are

influenced by the degree of knowledge of the disorder. The misunderstanding of epilepsy and the social stigma of persons living with the condition sometimes leads to feelings of isolation and low self-esteem [6].

Awareness, knowledge and attitudes (AKA) surrounding epilepsy have been demonstrated to be significant in minimizing the impact of seizures, potentially damaging self-management techniques and the emotional impact of both seizures and treatment [10].

Materials and methods

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

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

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

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

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

Tool/Instruments

The tool was produced in three domains knowledge, attitude and practice. Knowledge and practice questionnaire and attitude scale were produced by the investigator herself after an exhaustive assessment of pertinent literature and by consulting specialists in the subject.

Description of the tool

Tool 1: A organized questionnaire which consists of three components, section A, B and C

Section A: (i) Sociodemographic profile such as age, sex, marital status, education, occupation, monthly income, source of information, type of family, location of residence of the caregiver and duration of caring.

(ii) Clinical data of patient such as age, sex, marital status, education, occupation, type of epilepsy, length of treatment and family history of epilepsy.

Section B: Structured questionnaire for assessing the expertise of caregivers regarding management of epilepsy. It consists of 21 things. Each item carries a maximum score of one except for three objects, which have a maximum score of three. No score has been granted for erroneous answers and neglected questions. Total score allocated for knowledge was 27. A score of 21-27 is classed as good knowledge, 14-20 as average knowledge and score <14 as low knowledge

Section C: Structured questionnaire for analyzing the practice of caregivers about management of epilepsy. It consists of 10 objects, among them each items carries one score except two items carry a score of three. Total score granted was 14. Based on the overall scores practice is categorized 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 toward management of epilepsy with options strongly agree, agree, neutral, disagree, strongly disagree. It consists of 15 pieces; among them 7 items are adversely phrased and 8 items are positively worded. The highest score for each item is 5 and minimum score is one. Total score granted was 75. Based on the overall scores attitude is categorized as 57-75 good attitude, 38-56 average attitude and <38 poor attitude.

Material validity: After developing the instrument and material, it was given to 7 experts for validity 5 from the field of Medical Surgical Nursing and 2 Neurologist. The necessary modifications proposed by the experts are incorporated and the tool was adjusted before the pilot trial. The tool was translated into Malayalam language by an expert and was retranslated into English which was compared with original, and it was accepted by the concerned guide.

Reliability of the tool: Reliability was verified by conducting split half approach. The dependability of knowledge, practice and attitude tool was 0.876, 0.827 and 0.811 correspondingly and the tools were found reliable.

Description of intervention: An organized instruction course for caregivers on management of epilepsy was the intervention. Teaching session was set for 60 minutes. Content was generated by the investigator herself and was given to 7 specialists for content authenticity. Modifications were made based on the recommended corrections. The lesson plan contained the description of epilepsy, etiology and risk factors of epilepsy, phases of epilepsy, forms of epilepsy, warning signals of seizures, triggers factors of seizures, diagnostic measures of epilepsy, therapy of epilepsy and coping techniques for living with epilepsy. After the instructional programme, their experiences were shared, and doubts answered. The caregivers were provided a module on management of epilepsy for later reference.

Pilot study: Pilot study was conducted in 5 samples who satisfied the inclusion criteria. The investigator gained consent from the college authority, the ethics committee, and Head of division of neurology. Pilot study was done from 31.12.11 to 23.01.12. Samples were selected from the neurology OPDs after getting 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 education plan a post test was conducted on the same group. The findings of the pilot study were evaluated statistically and presented before the research committee. After the pilot study minor improvements were made in the tool. They were as follows:

- Addition of two new characteristics like relationship with the patient and duration of caring to the sociodemographic profile of the caregiver and kind 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 altered to specify the actual age.
- Some of the options were altered from knowledge (Qn.no: 2,3,10,15,20) and practice(Qn.no:23) questionnaires
- Two questions were removed from the knowledge questionnaire.

Based on the revisions the tool was prepared for the actual study.

Data collecting process: Data collection started after gaining clearance 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 ran from 14.2.11 to 12.4.12. Samples were selected from the neurology OPDs after getting informed consent. Rapport was created with patients and caregivers and the goal of the study was told to them. The investigator analyzed the knowledge, attitude and practice of the study participants by employing questionnaire. It took 20 minutes for collecting data from each client. On the same day after the pretest, the investigator presented the teaching programme individually to each caregiver and instructional module on management of epilepsy was supplied. Three weeks after structured teaching, a post test was conducted with the same group.

Plan for data analysis: Data were analyzed using descriptive and inferential statistics. 3/4 Socio demographic characteristics were presented as frequency distribution and percentages displayed with tables and figures. 3/4 Knowledge, attitude and practice were analyzed by descriptive statistics (mean and standard deviation) 3/4 Effectiveness of structured teaching programme was analyzed using inferential statistics (paired t test) 3/4 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: 3/4 Majority of the caregivers (44%) belonged to the age range 31-40 yrs and females are the dominating category (66%) among the caregivers and all the caregivers were married (100%). 3/4 Maximum responses 60% had high school education and 4% had after graduation. Majority of the caregivers were house wives (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 counted on television as their way of acquiring information and 26% had television, newspaper and radio as their source of information.

3/4 Majority of caregivers (44%) were caring epileptic patient for less than 2yrs and 14% were caring for more than 10 yrs. 3/4 58% of the caregivers were moms 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: 3/4 Among the caretakers, 42% had low knowledge, 42% had average knowledge and just 8% had good knowledge. In attitude 58% had mediocre

attitude and 42% had good attitude. In practice 20% had poor practice, 46% had average practice and just 34% were following good practice for management of epilepsy before the intervention. 3/4 After the intervention 96% of caregivers had good knowledge, 98% had good practice and all the caregivers (100%) had favorable attitude on management of epilepsy. 3/4 The mean post test knowledge score was 24.94 the mean pretest knowledge score 14.60. The 't' test demonstrated that there is a statistically significant gain in the knowledge following the intervention ($p < 0.001$). 3/4 The mean pretest attitude score was 56.7, but mean post test attitude score was 70.6. The 't' test demonstrated that there is statistically significant change in the attitude following the intervention ($p < 0.001$). 3/4 The mean posttest practice score is 13.06 where as the mean pretest practice score 8.7. The 't' test demonstrated that there is a statistically significant change in the practice after the intervention ($p < 0.001$). These findings demonstrated that structured teaching programme was successful in enhancing 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: 3/4 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 ($p > 0.05$) 3/4 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 summation of the research study, effectiveness of organized instruction programme among caregivers on managing patients with epilepsy visiting KIMS Hospital Thiruvananthapuram. The investigation was conducted utilizing 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 measure their baseline knowledge, attitude and practice regarding management of epilepsy. On the same day itself, structured teaching programme was offered and all were presented with an instructional module on management of epilepsy for subsequent reference. Three weeks after the instructional programme a post test was administered using the same questionnaire while they attended for follow up. Data coding was done by the investigator herself and data were analysed by utilizing descriptive and inferential statistics. The study results demonstrated a considerable change in the knowledge, attitude and practice of caregivers after the delivery of the structured instruction programme about management of epilepsy. From the study it is obvious that educating persons affected by epilepsy and their caregivers will encourage an enhanced awareness on management of epilepsy and help them to build positive attitude towards epilepsy.

Conclusion

Based on the outcomes of the investigation the following conclusions were obtained. The systematic teaching plan has a positive influence on the knowledge, attitude and practice of caregivers of epileptic patients. The interventional teaching plan made the customers more aware of the disorder 'epilepsy'. In the light of the present study it is stated that structured teaching programme can greatly improve the knowledge, attitude and practice of caregivers of epileptic patients.

Nursing implications

The findings of the study have relevance in the realm of nursing education, nursing practice, nursing administration and nursing research.

Nursing education

1. The outcomes of the present study will assist the nurse educators and students to recognize the areas of need for education of patients and caregivers on management of epilepsy.
2. Regular in-service education sessions might be conducted to influence the staff nurses in upgrading knowledge towards patient education on epilepsy.
3. The nurses should be supplied with current knowledge and assisted to define their role in patient education through education programme.
4. The instructional materials linked to epilepsy and its management might be made available in the clinical set up.
5. In the nursing program, additional focus might be placed regarding instruction for epileptic clients.
6. The student nurses can determine the learning needs of the customers and can give need based education. Nurse educators and students can collectively prepare special teaching strategies for epileptic clients.

Nursing practice

Several conclusions can be drawn from the present study for nursing practice. Education sessions conducted by the nursing personnel both in the hospital and community area assists in taking care of epileptic patient.

1. The findings of the study provide an insight into the challenges experienced by epileptic consumers.
2. Being a primary care provider, the nurse plays a significant role in patient care. Health education is a vital aspect of quality patient care.
3. Nurses could create, administer and evaluate various training programmes for epileptic clients and their caregivers attending the outpatient departments as well as those admitted in the wards.
4. It is necessary to have appropriate number of qualified and skilled nurses to give effective care and education for persons suffering from this chronic stigmatized condition.
5. Nurses might also conduct community outreach initiatives to convey this information to the rural populace.
6. An epileptic nurse educator role may be highlighted based on the outcomes of the study. Nurse managed patient education clinic can be done in the hospital and can provide education to the inpatient and outpatient epileptic clients and their caregivers.

Limitations

1. The study was undertaken for the representative group of the complete population in a setting; consequently generalization is confined to the population of KIMS Hospital, Thiruvananthapuram.
2. The sample size was too small to draw generalization(n=50)
3. Study duration was quite short (6wks) and consequently the long-term effect of the organized instruction curriculum could not be examined.
4. The study did not contain a control group so the findings of the study must be generalized with caution.

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