THE STUDY TO EVALUATE THE EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE (SIM) ON KNOWLEDGE REGARDING PROMOTION OF SAFETY MEASURES AMONG PATIENTS WITH SEIZURE AND PRIMARY CARE GIVERS IN SELECTED HOSPITALS AT SALEM.

A Dissertation submitted to

The Tamilnadu Dr.M.G.R. Medical University, Chennai - 32

in partial fulfillment of the requirement for the degree of

MASTER OF SCIENCE IN NURSING

By

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MEDICAL SURGICAL NURSING

SHANMUGA COLLEGE OF NURSING,

SALEM – 636007

APRIL - 2011
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DECLARATION

I Mrs. ANUJA JUSTIN, here by declare that this dissertation entitled "The study to evaluate the effectiveness of Self Instructional Module (SIM) on knowledge regarding promotion of safety measures among patients with seizure and primary care givers in selected Hospitals at Salem” has been prepared by me under the guidance and direct supervision of Dr. S. CHANDRASEKARAN, MN., Ph.D., Shanmuga College of Nursing, Salem as the requirement for partial fulfilment of M.Sc (N), degree under The Tamil Nadu Dr. M.G.R. Medical University, Chennai-32. This dissertation had not been previously formed and this will not be used in future for award of any other degree/diploma. This dissertation represents independent work on the part of the candidate.

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Mrs. ANUJA JUSTIN
ABSTRACT:

This study was conducted among 30 patients with seizure and primary care givers who came to selected hospitals at Salem during the month of September – October 2010. The study was aimed to find the effectiveness of Self Instructional Module (SIM) regarding promotion of safety measures among patients with seizure and primary care givers. The study showed statistical significance (P<0.05). It is recommended that Self Instructional Module regarding safety measures has to been given to the patients with seizure and primary care givers.

Key Words: Effectiveness, Self Instructional Module, Knowledge, Seizure

Introduction: Seizure is an emergency health concern for every person and their care providers across the continuum of health. There is an increasing prevalence of seizure particularly after head injury. Prevalence of seizure in India is 5.5 million per year. (Epilepsy status 2009)

Statement: The study to evaluate the effectiveness of Self Instructional Module (SIM) on knowledge regarding promotion of safety measures among patients with seizure and primary care givers in selected Hospitals at Salem.

Objectives: (1) To develop and validate Self Instructional Module regarding promotion of safety measures for patients with seizure and primary care givers. (2) To assess the knowledge score on Safety measures regarding seizure management before and after exposed to SIM among patients with seizure and primary care givers. (3) To find out the association between pre-test level of knowledge with their selected demographic variables (Age in years, Educational status).

Research Hypotheses: (Level of significance p<0.05)

H1: The mean post test knowledge score after exposed to SIM will be higher than the mean pre test knowledge score among patients with seizure.

H2: The mean post test knowledge score after exposed to SIM will be higher than mean pre test knowledge score among primary care givers of patients with seizure.

H3: There will be significant association between the pre test knowledge level on promotion of safety measures among seizure patients with their selected demographic variables (age, educational status).

Method: (1) Effectiveness: Effectiveness is determined by the significance difference in mean pre-test and post-test knowledge regarding promotion of safety measures among patients with seizure and primary care givers through Self Instructional Module regarding promotion of safety measures includes meaning of seizure, its causes, signs and symptoms, diagnosis, complications, management and care of patients during and after seizure, which is measured by using a structured questionnaire, contains multiple choice questions and each correct answer
carries 1 mark. The scores will interpreted as below 50% - Inadequate knowledge, 51 – 75 % as moderately adequately knowledge and above 75% as adequate knowledge. **(3) Self Instructional Module:** It refers to a systematically organized teaching strategy regarding promotion of safety measures among patients with seizure and primary care givers. It includes meaning of seizure, its causes, signs and symptoms, diagnosis, complications, management and care of patients during and after seizure. Along with SIM interaction was done by researcher.

A one group pre-test post-test design was conducted in AG Neuro Serve hospital. Salem from Sept 1st 2010 to October 10th 2010. The samples included in the study were 30 patients with seizure and their primary care givers. Written consent was obtained from the hospital authorities and from the samples before conducting study. Non probability convenient sampling technique was adopted. The independent variable was Self Instructional Module regarding promotion of safety measures among patients with seizure and primary care givers. The dependent variable was the knowledge regarding promotion of safety measures among patients with seizure and primary care givers. Data collection was done by using self administered questionnaire on knowledge regarding promotion of safety measures among patients with seizure and primary care givers. The conceptual framework used for the study was Betty Neumann’s System Model theory. The pre-test was done on Day – 1 to assess the knowledge regarding safety measures among patients with seizure and primary care givers. Then the researcher has introduced Self Instructional Module which includes meaning of seizure, its causes, signs and symptoms, diagnosis, complications, management and care of patients during and after seizure. On the 8th day knowledge was assessed by using same tools.

**Findings:**
Knowledge score regarding promotion of safety measures among patients with seizure.

![Bar Diagram](image)

**Fig-1: A Bar diagram on the level of mean pre – test and post test score regarding promotion of safety measures among patients with seizure.**
Fig-1 shows that in pre test 24(80%) samples had inadequate knowledge, 6(20%) had moderate knowledge. In post test 20(67%), 10(33%) had moderate knowledge.

Table-3: Mean, SD, range, paired mean difference, paired ‘t’ value, mean score percentage and overall mean pre- test and post test knowledge score on promotion of safety measures among primary care givers of patients with seizure.

| Area of knowledge | Max. possible score | Pre – test level of knowledge | Post – test level of knowledge | Paired mean difference | Paired ‘t’ value |
|-------------------|---------------------|-----------------------------|-------------------------------|-----------------------|----------------
|                   | Mean   | SD  | Range | Mean   | SD  | Range |                   |                       |
| Care during and after seizure | 15     | 5.83 | 1.88  | 3 - 10 | 12.27 | 1.73  | 9 - 15          | 6.44                  | 13.68*                |
| Overall score     | 15     | 5.83 | 1.88  | 3 - 10 | 12.27 | 1.73  | 4 - 13          | 6.44                  | 13.68*                |

The overall maximum possible score for care of patients during and after seizure was 15. The mean pre test score of overall knowledge was 5.82 and the mean post test score was 12.27.

Limitation:
- Interaction was done only one time as the samples were coming for O P consultation.

Conclusion:
The mean pretest score reveals inadequate knowledge regarding promotion of safety measures among patients with seizure and their primary care givers. After exposed to Self Instructional Module, the group showed adequate knowledge. SIM regarding promotion of safety measures may be effectively utilized among patients with seizure and their primary care givers to prevent reoccurrence and further complications.

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CHAPTER I
INTRODUCTION

“A man too busy to take care of his health is like a mechanic too busy to take care of his tools.”

Seizure is a neurological disorder characterised by unprovoked electrical discharges that disrupt the nervous system and can cause abnormalities such as abnormal blood levels of calcium, magnesium, glucose which can trigger one or more seizure conditions that irritate the brain. (Christensen and Vestergaard, 2007)

Most people with seizure lead outwardly normal lives. Approximately 80% can be aided by modern therapies, and some may take months or years between each seizure attack. However, this condition can affect daily life of people with seizure, their family and their friends. People with seizures who ignore treatment have, a shorter life expectancy and increased risk of cognitive impairment. People with seizure have an higher risk of poor self-esteem, depression and suicide tendency. These problems may by a reaction that may result in cruelty and avoidance by other people. (http\www.nih.gov)

Based on the total projected population of India, the estimated number of people with seizure would be 5.5 million. Based on a single study on the incidence of seizure, the number of new cases of seizure in each year would be close to half a million (Epilepsy status 2009) .The average incidence rate was higher than many developed countries, but lower than the developing countries. (Shankar Saha, and Shyamal Das, 2008)

Seizure becomes a medical emergency, when seizure lasts longer than 5 minutes or when a person has many seizures and does not wake up between
them. Good healthy habits may help to control seizure such as good sleep habits, stress reduction, proper exercise, good nutrition, regular intake of medicine etc. *(Rubin and Kornblau, 2009)*

**NEED FOR THE STUDY**

Many people with seizure also live with ever present fear of getting another attack. The risk of seizure acts as a barrier for their independence; In USA people with seizure or other handicaps cannot be denied employment or access to many educational, recreational or other activities due to their seizure. However one survey in India showed that about 56% of people with seizure finish high school education and only 15% finish college education. These rates are found lower than those of the general population. These numbers indicate that some important barriers still exist for people with seizure.

The risk of seizures becomes a barrier for people’s recreational choices; sports is a positive factor in life which is best for the person to participate. Women with seizure are often concerned about whether they can become pregnant and have a healthy child. This is usually a possible situation. Probably 90% women with seizure have the chance of bearing a normal healthy baby and the risk of birth defects is only associated with pregnancy and delivery.

The researcher personally felt that seizure episodes are common and often recurrent if the patient does not maintain good health habits. The knowledge level regarding safety measures on management of seizure is essential for people. So the researcher got interested to prepare a Self Instructional Module regarding promotion of safety measures among patients with seizure.
STATEMENT OF THE PROBLEM

The study to evaluate the effectiveness of Self Instructional Module (SIM) on knowledge regarding promotion of safety measures among patients with seizure and primary care givers in selected Hospitals at Salem.

OBJECTIVES

1. To develop and validate Self Instructional Module regarding promotion of safety measures for patients with seizure and primary care givers.
2. To assess the knowledge score on Safety measures regarding seizure management before and after exposed to SIM among patients with seizure and primary care givers.
3. To find out the association between pre-test level of knowledge with selected demographic variables (Age in years, Educational status)

RESEARCH HYPOTHESES: (Level of significance p<0.05)

H₁: The mean post-test knowledge score after exposed to SIM will be higher than the mean pre-test knowledge score among patients with seizure.

H₂: The mean post-test knowledge score after exposed to SIM will be higher than mean pre-test knowledge score among primary care givers of patients with seizure.

H₃: There will be significant association between the pre-test knowledge level on promotion of safety measures among seizure patients with their selected demographic variables.

H₃(a): There will be significant association between the pre-test knowledge level on promotion of safety measures among seizure patients with their age.
**H3(b):** There will be significant association between the pre-test knowledge level on promotion of safety measures among seizure patients with their educational status.

**OPERATIONAL DEFINITIONS**

1. **Effectiveness:**

   In this study, effectiveness refers to the significant difference in mean pre-test and post-test knowledge score regarding promotion of safety measures on management of seizure among the samples.

   **a). Knowledge of patients with seizure:**

   In this study, it refers to the level of information which is known by the patients with seizure regarding promotion of safety measures which includes drug regimen; marriage and pregnancy; relaxation therapy and safety measures on management of seizure which will be assessed by using a structured questionnaire, with Multiple choice questions. The scores will be interpreted as below 50% - Inadequate knowledge; 50% - 75% moderate knowledge and above 75% - adequate knowledge.

   **b). Knowledge of primary care givers of patients with seizure:**

   In this study, it refers to the level of information regarding promotion of safety measures which includes care of patient during and after seizure by the primary care giver which is assessed by structured questionnaire that contains multiple choice questions. The scores will be interpreted as below 50% - Inadequate knowledge; 50% - 75% - moderate knowledge; above 75% - adequate knowledge.

2. **Primary Care giver:**

   In this study, it refers to a person who is being with the patient and giving care before, during and after a seizure attack.
3. Self Instructional Module:

**Section-1: For patients with seizure:**

In this study, it refers to a self explanatory guide regarding the promotion of safety measures on management of seizure. It gives information regarding meaning of seizure, its causes, signs and symptoms, diagnosis, complications, and management of seizure.

**Section – 2: For primary care givers of patients with seizure:**

In this study, it refers to set of guidelines regarding promotion on care of patients with seizure for the primary care givers. It gives information regarding the care of patient during after seizure.

4. Patients with Seizure:

In this study, it refers to individuals who are diagnosed as patients with seizure for the past one year and who attend the out- patient department for regular treatment in selected Hospitals at Salem.

5. Safety Measures on Management of Seizure:

In this study, it refers to the information regarding safety measures on drug regimen; relaxation therapy; care during and after seizure which should be followed by the patient to avoid physical as well as mental harm.

6. Demographic Variables:

   a) Age in years:

   In this study, the age group from 20 to 60 years was included.

   b) Gender:
It refers to the sex of the patient with seizure and primary care giver (male and female).

c) Educational status:

In this study, primary school to post graduate level were included.

d) Family member in health profession:

In this study, it refers to the individual in the family who is working as doctor, nurse, physiotherapist or other health personnel.

ASSUMPTION

1. The knowledge on seizure and care during seizure is essential for people to lead a healthy life and to promote psychosocial well being.
2. The improved knowledge will help in preventing the further attack of seizure.

ETHICAL CONSIDERATION

1. Formal permission will be obtained from the concern authority from the Neuro Hospital OPD where the study is conducted.
2. Written informed consent will be obtained from the samples after explaining the usefulness of study.

DELIMITATIONS

1. Sample size is delimited to 30 patients on regular treatment and their primary care givers who attend OPD.
2. Patients with seizure who are accompanied by primary care giver.
3. Study is delimited to those who will be available for post test.
SUMMARY

This chapter dealt with the introduction, need for the study; statement of the problem; objectives; hypotheses; operational definitions; assumption; ethical consideration and delimitations.

CHAPTER II

REVIEW OF LITERATURE

Review of literature is a key step in research process. The literature review is to discover what has previously been done about the problem to be studied, what remains to be done, what methods have been employed in other research and how the result of other research in the area can be combined to develop knowledge.

It is essential step, and can be done before and after selecting the problem. It can help to determine what is already known about the topic (A.P. Jainco, 2005)
The chapter deals with review of literature, the studies reviewed have been arranged under the following sections,

**Section-I:** Studies related to prevalence of seizure.
**Section-II:** Studies related to effects of seizure.
**Section-III:** Studies related to knowledge assessment of seizure.
**Section-IV:** Studies related to application of Betty Neuman’s System Model.
**Section-V:** Conceptual Framework Based on Betty Neumann’s System Model.

**SECTION-I: STUDIES RELATED TO PREVALENCE OF SEIZURE**

*Begh (1997)*, conducted a study on prevalence of seizure, and reported that in India the prevalence rate is 3\1000 and seizure causes a high morbidity in 90% of people.

*John Bartlet, (1997)* did a study about the prevalence of seizure and found that Seizure affects 30 to 50% of people with learning disabilities. Up to 80% of people can control their seizure with anti seizure drugs. The most common type was the Tonic Clonic Seizure and complex partial seizures being the second most common. Only 3.5% of people with seizure will had their seizures triggered by flashing lights, geometric pattern, many of this gain control over induced seizure with medication.

*Labovitz, Hauser and Sacco., (2006)* did an incidence study to identify all cases of first stroke in adults. Cases of epileptic seizure were identified through medical record review. The study was in 904 patients, Epileptic Seizures occurred in 37 (41%). The frequency of epileptic seizures by stroke subtype and location was deep infarct .6%, labour infarct 5.9%, deep intracerebral haemorrhage 4.0%, lobar intra cerebral haemorrhage
14.3%, and subarachnoid haemorrhage 8%. Lesion location and stroke subtype are strong determinants of epileptic seizure risk.

SECTION-II: STUDIES RELATED TO EFFECTS OF SEIZURE

Austin, (1998) reported that family members with positive attitude towards patients with seizure had more coping behaviour than family members with less positive attitude.

Bakee. et.al, (1999) conducted a study regarding the stigma of seizure on European sample and the result showed that 51% reported feeling stigmatized with 18% reported feeling highly stigmatized. High scores were correlated with worry, negative feelings about life, long term health problem, injuries and side effects of antiseizure drug.

Ellis., (2000) indicated that seizure may cause increased level of psychosocial difficulties for all family members, which includes stigmatization, stress, psychiatric reorbidity, marital problems, poor self esteem and restriction of social activities. Family of patient with seizure experienced some sense of grief as patients mourn for the loss of normal childhood they once had. Predictability of seizure occurrence often results in over protective primary care givers.

Suzanna., (2000) conducted a study on the changes in public attitude towards seizure. They studied how the demographic background of the respondents affected, awareness, understanding and attitude toward seizure people with seizure regarding marriage, children. Associating work performance by seizure patient and found that public had different attitudes towards seizure. Majority of people (84%) were against marriage and pregnancy. 10% of people accepted jobs. Remaining 6% had no opinion. The study concluded that the public need further awareness about seizure.
M.D Lawn, K.Radakrishnan, (2006) did a study on injuries due to seizure in a total of 2714 patients with seizure. Injuries related to seizure were identified in 39. About 82% of seizure-related injuries occurred during generalized convulsive seizure. Univariate analysis found five important risk factors for seizure-related injury. Increased number of anti-epileptic drugs, decreased independent living situations, past events of generalized convulsive seizure or drop attacks, higher frequency score. The results of the study showed that seizure-related injuries were infrequent and generally of minor severity. In most epilepsy patients, over restriction of daily activities was unnecessary. Effective seizure control reduced the risk of seizure-related injuries.

SECTION-III: STUDIES RELATED TO KNOWLEDGE ASSESSMENT OF SEIZURE

Darvesi, (1984) conducted a study to explore the patient perspectives on seizure in Nigeria. Total sample of 117 seizure patients had administered questionnaire developed by the researcher. The questionnaire included questions on attitudes towards patient on seizure, knowledge on seizure, views of seizure patients. Result showed that 39.9% did not accept that they had seizure and most of the seizure patients ignored the causes of seizure. The majority however had many positive views on seizure and favourable attitude towards other seizure patients.

Buta., (1993) reported that lack of knowledge in patients with seizure and primary care giver had uncertainty in treatment of seizure.

Raviza., (1993) conducted a study to assess the knowledge, attitude and practice towards seizure among rural Tanzanian resident and findings showed that 67.1% did not know the causes of seizure and 50.8% believed –
that hospital drugs were of no use 62.7% would not allow seizure patient to go to school.

Long., (2000) conducted a study to assess the knowledge of seizure patient referred to an American tertiary care centre. The question was related to safety, compliance and legal issues of driving and employment. Analysis showed that 30% believed that seizure was a mental disorder or contagious. 91% believed that it was appropriate to place an object in a patient’s mouth during a seizure to prevent injury; the study showed that patients with seizure had no knowledge about seizure.

SECTION-IV: STUDIES RELATED TO APPLICATION OF BETTY NEWMAN’S SYSTEM MODEL

Deepa Thomas., (1998) conducted a study to assess the effectiveness of instructional module on knowledge regarding menstrual hygiene among adolescent girls in selected schools in Trivandrum. In her study she used Betty Newman’s System model (1989) for creating awareness regarding menstrual hygiene among adolescent girls.

Stressors in her study were hormonal, physical and psychosocial changes and the existing superstitions and lack of knowledge of adolescent girls and the reaction was poor menstrual hygiene and maladjustment. She used two interventions in her study. The primary prevention was done by using the instructional module for providing education to the adolescent girls regarding menarche, development of secondary sexual characteristics and menstrual hygiene. In her study the secondary prevention was detection of unhygienic practices and education to correct the practices. The reconstitution in her study was the better adjustment and better hygiene.
Alpha. G., (2008) conducted a study to assess the effectiveness of structured teaching programme on knowledge and attitude regarding changes related to puberty and menstrual hygiene among prepubertal girls in selected schools, at Salem. In her study she used Betty Newman’s System model (1989) for creating awareness regarding menstrual hygiene among prepubertal girls.

Stressors in her study were the physical and psychosocial changes related to puberty. She used one intervention in her study. The primary prevention was done through structured teaching programme on changes related to puberty and menstrual hygiene. The reconstitution in her study was the better knowledge and attitude towards pubertal changes and menstrual hygiene.

SECTION-V: CONCEPTUAL FRAME WORK USING BETTY NEUMANN’S SYSTEM MODEL

This study is based on Betty Neumann’s system model (1989); which would be relevant to provide awareness regarding promotion of safety measures on management of seizure by providing Self Instructional Module among patients with seizure and their primary care givers.

Neumann’s (1989) model focuses on stress and stress reduction and is primarily concerned with the effects of stress on health. According to Neumann, her model views the person as an individual. She considers the client (person) to be an open system interacting with the environment. The person has a core consisting of basic structures. Surrounding the basic core structure are concentric circles which include the lines of resistance and lines of defence.
In this study the person is patients with seizure and their primary care givers. The basic core structure is the knowledge regarding promotion of safety measures on management of seizure.

**Lines of resistance/ Flexible line of resistance:**
These are the series of lines surrounding the basic core structure. It represents the internal factors of a person that help to defend against a stressor.

The flexible line of resistance in this study is the knowledge regarding promotion of safety measures among patients with seizure and their primary care givers.

**Normal line of defence:**
It is the solid line out of the lines of resistance. It refers to the equilibrium state or adaptation state that the client has developed over time.

The normal line of defence in the study is the normal psychosocial status of the client.

**Flexible line of defence:**
It is the broken line outside the normal line of defence. It act as a protective barrier to prevent stressors from braking through the normal line of defence.

In this study the flexible line of defence is the knowledge regarding promotion of safety measures on management of seizure.

**Stressors:**
These are the stimuli that alter the system’s stability. The stress can be intrapersonal, interpersonal and extra personal.
The stressors in this study are; for the patients the main stressors are plan to get married, fear regarding pregnancy, selection of occupation, worries about social stigma, precaution towards pre-disposing factors. For the primary care givers the main stressors are safety measures during seizure and maintenance of health after seizure.

**Basic structure common to all:**

In this study, the basic structure common to patients with seizure and their primary care givers are the demographic variables. For the patients the basic structure includes a gender, age, duration of illness, educational status, family member in health profession, predisposing factor, age at first occurrence of seizure and for the primary care givers the basic structure includes gender, educational status and relationship with patients.

In this study, primary prevention is not included. The secondary and tertiary prevention can be achieved by the sample through:

**Reaction to stressors:**

The reaction occurs when the flexible line of defence cannot protect a person from the stressors. Reaction occurs in patients with seizure and their primary care givers, may be positive and negative reactions. The reactions will be assessed by pre-test, i.e., it includes assessment of the knowledge regarding promotion of safety measure among patients with seizure and assessment of the knowledge regarding promotion of safety measures among primary care givers of patients with seizure.

According to Newman, specific interventions are used to retain or maintain system stability, which includes primary, secondary and tertiary prevention.
Self Instructional Module regarding promotion of safety measures on
management of seizure.

**Reconstitution:**

It is the adaptation phase to the stressor, as a part of the reaction. In this study, reconstitution may have two outcomes. The first one is the positive reconstitution that means the patients with seizure and their primary care givers will get adequate knowledge regarding promotion of safety measures on management of seizure. The second one is the negative reconstitution that means the patients with seizure and the primary care givers will not get adequate knowledge regarding promotion of safety measures of management of seizure. This will assess by conducting post-test.
Figure-2.1: Conceptual Framework Based on Betty Neuman’s Theory(1989) Applied to Effectiveness of Self Instructional Module Regarding Promotion of Safety Measures Among Patients With Seizure and Primary Caregivers.
SUMMARY

This chapter dealt with literature reference regarding prevalence of seizure, effects of seizure, knowledge assessment and studies related to Betty Neumann’s system model. This chapter also included.
CHAPTER III

RESEARCH METHODOLOGY

This chapter deals with the methodology selected for evaluating the effectiveness of Self Instructional Module regarding promotion of safety measures among patients with seizure and primary care givers. The role of methodology consists of procedures and techniques of conducting a study. (Sharma, 1990)

Methodology is a significant part of the research under which the researcher is able to project the plan of the research undertaken.

RESEARCH APPROACH

The section of research approach is the procedure for conducting a research enquiry. A research approach leads us to know what to collect and how to analyse it. In view of the nature of the problem selected and objectives to be accomplished, a quantitative evaluative research approach was considered appropriate. The effectiveness of Self Instructional Module regarding safety measures in terms of knowledge among patients with seizure and primary care givers can be evaluated.

RESEARCH DESIGN

Research design is the overall plan for addressing researcher’s questions including specification for enhancing the study’s integrity. (Polit and Beck, 2004)

Selection of design is based on the purpose of the study. To evaluate the effectiveness of Self Instructional Module on knowledge regarding promotion of safety measures among patients with seizure and
primary care givers, Pre- experimental design (one group pre-test post - test design) would be the best one.

<table>
<thead>
<tr>
<th>DAY 1</th>
<th>DAY 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>O₁</td>
<td>X</td>
</tr>
</tbody>
</table>

Fig-3.1: Schematic Representation of Research Design

Key:
O₁: Pre-test assessment of knowledge regarding promotion of safety measures on management of seizure.
X: Self Instructional Module regarding promotion of safety measures on management of seizure.
O₂: Post-test assessment of knowledge regarding promotion of safety measures on management of seizure.

VARIABLES UNDER STUDY

A Variable is a measurable or potentially measurable component of an object or event that may fluctuate in quality or quantity from one individual, object or event to another individual object or event of the same general class. (Basavanthappa, 1998)

**Independent Variable:**

According to Polit and Beck, (2004) the independent variable is believed to care or influence the behaviour and ideas.

The independent variable in the present study was Self Instructional Module regarding the promotion of safety measures among patients with seizure and primary care giver.
**Dependent variable:**

The dependent variable is the variable in which the researcher is interested in understanding, explaining and proceeding. *(Polit and Beck, 2004)*

The dependent variable in the present study was knowledge regarding the promotion of safety measures among patients with seizure and primary care giver.

**Extraneous Variable:**

Extraneous variables are those variables that are present in research environment which may interfere with research findings by acting as unwanted independent variable. *(Woods and Khan, 1994)*

The extraneous variable in the present study was the demographic variables such as age; gender; educational status; family member in health profession; duration of illness and pre-disposing factor.

**SETTING OF THE STUDY**

A study setting is the general physical location in which data collection takes place. *(Polit and Beck, 2004)*

The study was conducted in the Out Patient Department of AG Neuro Serve Hospital, Salem. It is located in the Ramakrishna road and about 1.5 kms distance from Institution, where the researcher is studying. The Hospital is 250 bedded with 2 floors. Ground floor consists of OPD and causality; the first floor consists of laboratory; pharmacy and Medical and Surgical wards. Second floor consists of Neuro male medical and surgical ward; Neuro female medical and surgical ward. The number of seizure patients coming twice per month range from 30 to 50.
POPULATION

According to Polit and Beck, (2004) population is the entire aggregation of cases in which a researcher is interested.

Population may be two types, accessible population and target population. In this study, two are described.

Target Population:

It refers to the population that the researcher wishes to make a generalization. In this research the target population is patients with seizure and primary care givers.

Accessible Population:

It refers to the aggregate of cases which confirm to the designed criteria and which is accessible to the researcher as the pool of subjects or objects.

In this study the population consisted of patients and primary care givers who were attending OPD of AG Neuro Serve Hospital at Salem.

SAMPLE

According to Polit and Beck, (2004) sampling is the process of selecting a portion of the population to represent the entire population. Sample is the sub set of population elements.

In this study the samples were selected from patients with seizure and primary care givers coming to the OPD of AG Neuro Serve Hospital who fulfil the inclusion criteria.
CRITERIA OF SAMPLE SELECTION

Inclusion Criteria:

Patients:

1. Who are diagnosed as seizure for more than 6 months.
2. Who are willing to participate in the study.
3. Who can read Tamil or English.
4. Who are residing within the Salem city.

Exclusion criteria:

1. Patients who had already participated in similar kind of study.
2. Children are not included in the study.
3. Patients who are diagnosed to have febrile fits.

SAMPLING TECHNIQUE AND SAMPLE SIZE

Thomas, (1990) defines sampling is the process of selecting units for study from a population.

In this study Non–probability convenient sampling technique was used to select sample. Sample size was 30 patients with seizure and primary care givers of patients with seizure for the study.

DESCRIPTION AND INTERPRETATION OF TOOL

For the purpose of the present study the following instruments were developed by the researcher. The tools were prepared with the help of review of literature; suggestions and recommendations from experts and by the past experience of the researcher. The content validity of the present study was established by obtaining opinion from 5 experts (3 Nursing experts and 2 medical experts). For assessing the reliability of the tool, it was administered to 7 patients with seizure of Gopi Memorial Hospital.
**Tool-1: Demographic data:**

Demographic data included age in years, gender, educational status, family member in health profession, duration of illness, pre-disposing factor; age at which first occurrence of seizure.

**Tool-2: Self Administered Questionnaire regarding promotion of safety measures among patients with seizure:**

Self administered questionnaire was used to assess the knowledge of patients with seizure regarding promotion of safety measures. It contains 15 items. First 6 questions are regarding general information about seizure and the other 9 questions are about safety measures. ‘1’ mark was given for right answers and ‘0’ for wrong and unanswered questions. Total score was interpreted as above 76% as adequate knowledge; 51 – 75 % as moderately adequately knowledge and 0 – 50 % as inadequate knowledge. The reliability of the tool was done by using Split – half method. ‘r’ value 0.84 and it was found reliable.

**Tool-3: Self Administered Questionnaire regarding promotion of safety measures among primary care givers of patients with seizure:**

This tool was used to assess the knowledge of primary care givers of patients with seizure regarding promotion of safety measures. It contains 15 items about care of patient during and after seizure. Scores were 1 and 0. ‘1’ mark was given for right answers and 0 for wrong and unanswered questions. Total score was interpreted as above 76% as adequate knowledge, 51- 75 % as moderately adequate knowledge and below 50% as inadequate knowledge. The reliability of the tool was done by using Split – Half method. ‘r’ value is 0.81 and it was found reliable.
DEVELOPMENT OF SELF INSTRUCTIONAL MODULE (SIM)

Self Instructional Module regarding promotion of safety measures among patients with seizure and primary care givers was developed by the researcher using literature review, opinion of subject experts and personal experience of the researcher. It included information regarding promotion of safety measures on management of seizure. The content of the information in SIM was included in three chapters. First chapter included information about Neurons, parts and functions of brain. The second chapter dealt with the information about seizure which contains introduction, facts and myths about seizure; meaning of seizure, how seizure occurs, types of seizure, aural stage of seizure, signs and symptoms of seizure, complications, diagnosis of seizure and summary. The third chapter dealt with safety measures of seizure. This chapter had two sections. First section dealt with information to the patient regarding drug treatment; employment and driving; marriage and pregnancy; relaxation technique and dietary pattern. Section–II dealt with information to the primary care giver. It contains instruction regarding care of patient during seizure; prevention of seizure related injury; care of patient after seizure and summary. The content of Self Instructional Module was validated by 5 experts and 100% agreement obtained. It was translated into Tamil by subject experts.

PILOT STUDY AND ITS FINDINGS

Pilot study is a small scale version or a trail run done in preparation for major study (Polit and Hungler, 1999).

The pilot study was conducted in the month of August 2009 from 9.8.2010 to 17.8.2010 in the Out Patient Department of Shanmuga Hospital, Salem. Formal permission was obtained from the authority and
individual written consent obtained from each sample. 3 samples were selected.

On day-1; pre test was conducted for the samples and Self Instructional Module was given to them. Researcher requested the sample to come for post test and on 8th day post test was done for the samples.

The result of the pilot study showed that 2 samples had moderate knowledge and one sample had inadequate knowledge regarding promotion of safety measures on management of seizure. But in post test 3 samples had adequate knowledge.

Mean pre test knowledge was moderately adequate (60%) for 2 samples and one sample had inadequate knowledge (46%). But mean post test knowledge score was adequate for 3 samples (above 80%). There was significant difference between mean pre test and mean post test knowledge score with in the samples. No specific difficulties were encountered.

DATA COLLECTION PROCEDURE

According to Polit and Hungler, (1999) “Data collection is the gathering of information needed to address a research study.”

The data collection was done from 1.9.2010 to 8.10.2010 for a period of 6 weeks. The study was conducted at the OPD of AG Neuro Serve Hospital after getting the written permission from concerned authorities. The total sample size was 30 patients with seizure and their primary care givers. The purpose of the study was explained and written consent was obtained from each sample.
On first day pre test was done. Individualised data collection was done as per the availability of patients in OPD. The demographic data was collected and the knowledge was assessed by using Self administered questionnaire regarding promotion of safety measures among patients with seizure and primary care givers.

SIM regarding promotion of safety measures among patients with seizure and primary care givers was distributed to the samples on first day and on 8th day post test on Knowledge regarding promotion of safety measures of seizure was assessed by using Self administered questionnaire.

**PLAN FOR DATA ANALYSIS**

Collected data were planned for analysis by using the frequency distribution, descriptive statistics (mean, SD, mean score percentage) and inferential statistics (paired ‘t’ test, Chi – square). This was done to find out the effectiveness of SIM regarding promotion of safety measures among patients with seizure and primary care givers.

**SUMMARY**

This chapter dealt with the methodology of how the researcher had planned and organized the data collection, the method of scoring and description of the tool, validity and reliability, pilot study, data collection procedure, and plan for data analysis.
CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

The data analysis is a “systematic organization and synthesis of research data and, testing of hypothesis using those data”. (Polit and Beck, 2008)

This chapter deals with the descriptive and inferential analysis of the data collected from 30 patients with seizure and their primary caregivers in outpatient department of selected hospitals at Salem.

STATEMENT OF THE PROBLEM

The study to evaluate the effectiveness of Self Instructional Module (SIM) on knowledge regarding promotion of safety measures among patients with seizure and primary caregivers in selected Hospitals at Salem.

OBJECTIVES

1. To develop and validate Self Instructional Module regarding promotion of safety measures for patients with seizure and primary caregivers.
2. To assess the knowledge score on safety measures regarding seizure management before and after exposed to SIM among patients with seizure and primary care givers.
3. To find out the association between pre-test level of knowledge with their selected demographic variables. (age in years, educational status)
RESEARCH HYPOTHESES: (Level of significance p<0.05)

**H1:** The mean post-test knowledge score after exposed to SIM will be higher than the mean pre-test knowledge score among patients with seizure.

**H2:** The mean post-test knowledge score after exposed to SIM will be higher than mean pre-test knowledge score among primary care givers of patients with seizure.

**H3:** There will be significant association between the pre-test knowledge level on promotion of safety measures among patients with seizure and their selected demographic variables.

PRESENTATION OF DATA

The data were entered in master sheet for tabulation and statistical processing. The obtained data were analysed, organized and presented under the following headings:

**Section-I:** Distribution of demographic variables of the samples.

**Section-II:** Analysis of the pre-test and post-test level of knowledge regarding promotion of safety measures among patients with seizure.

**Section-III:** Analysis of the pre-test and post-test level of knowledge regarding promotion of safety measures among primary care givers of patients with seizure.

**Section-IV:** Association between the mean pre-test knowledge score on knowledge on promotion of safety measures among patients with seizure (age in years, educational status.)
SECTION-I: Description of demographic variables on the samples.

This section deals with analysis of the distribution of samples according to frequency and percentage. The selected demographic variables are (i) Age in years, (ii) Gender, (iii) Duration of illness, (iv) Educational status, (v) Pre-disposing factor, (vi) Family member in Health profession.

Table-4.1: Frequency and percentage distribution of samples based on their demographic variables.

<table>
<thead>
<tr>
<th>Item No</th>
<th>Demographic variables</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Male</td>
<td>19</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>b. Female</td>
<td>11</td>
<td>37</td>
</tr>
<tr>
<td>2</td>
<td>Age in years</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. 20 – 30</td>
<td>03</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>b. 31 – 40</td>
<td>06</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>c. 41 – 50</td>
<td>08</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>d. 51 - 60</td>
<td>07</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>e. &gt;60</td>
<td>06</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Duration of illness</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Newly diagnosed</td>
<td>10</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>b. One year</td>
<td>10</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>c. 2 – 5 year</td>
<td>06</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>d. &gt;5 year</td>
<td>04</td>
<td>13</td>
</tr>
<tr>
<td>4</td>
<td>Educational status</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a Higher secondary</td>
<td>17</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>b. Under graduate</td>
<td>07</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>c. Post graduate</td>
<td>06</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>Pre disposing factor</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Head injury</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>b. Brain surgeries</td>
<td>07</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>d. Fever</td>
<td>11</td>
<td>37</td>
</tr>
<tr>
<td>6</td>
<td>Family member in</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>health profession</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Doctor</td>
<td>02</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>b. Nurse</td>
<td>07</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>c. Physiotherapist</td>
<td>04</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>d. Pharmacist</td>
<td>06</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>e. Any other</td>
<td>11</td>
<td>37</td>
</tr>
</tbody>
</table>
Table-4.1 shows out of the 30 samples, 19 (63%) of them were males and 11 (37%) were females. Among the 30 samples, 3 (10%) of them were of the age group 20 – 30, 6 (20%) of them were of 31 – 40, 8 (27%) of them were 41 – 50, 7 (23%) of them were of 51 – 60 and 6 (20%) of them were of above 60 years of age.

Among the samples, 10 (33%) of them were newly diagnosed, 10 (33%) of them had a duration of illness of one year, 6 (20%) had 2–5 years and 4 (13%) had more than 5 years. Educational status of the samples showed that no one had primary school education, 17 (57%) of them had higher secondary education, 7 (23%) were under graduates, 6 (20%) were post graduates.

Among the samples, 12 (40%) had head injury as the pre-disposing factor, 7 (23%) had brain surgeries, no one had hereditary as pre-disposing factor, 11 (37%) had fever. Family member in health profession showed that, 2 (7%) were doctors, 7 (23%) were nurses, 4 (13%) were physiotherapists, 6 (20%) were pharmacists and 11 (37%) were from any other jobs.

SECTION-II: Analysis of the pre-test and post-test level of knowledge regarding promotion of safety measures among patients with seizure.

This section deals with details of analysis in regard to pre-test knowledge score percentage and post-test knowledge score by using Self administered questionnaire regarding promotion of safety measures among patients with seizure. This section is divided into following headings,
a) Knowledge score regarding promotion of safety measures among patients with seizure.

b) Mean, SD, range, paired mean difference, paired ‘t’ value, mean score percentage of area wise and overall mean pre-test and post-test knowledge score regarding promotion of safety measures among patients with seizure.

Section-II(a): Knowledge score regarding promotion of safety measures among patients with seizure.

![Bar diagram on the level of mean pre-test and post-test score regarding promotion of safety measures among patients with seizure.](image)

Fig-4.1: Bar diagram on the level of mean pre-test and post-test score regarding promotion of safety measures among patients with seizure.

Fig-4.1 shows that in pre-test 24(80%) samples had inadequate knowledge, 6(20%) had moderate knowledge. In post-test 20(67%), 10(33%) had moderate knowledge.
The data analysis showed that no one had adequate knowledge in pre-test regarding seizure safety measures and after exposed to SIM 20 patients had gained adequate knowledge.

**Section-II(b): Mean, SD, range, paired mean difference, paired ‘t’ value, mean score percentage of area wise and overall mean pre-test and post-test knowledge score regarding promotion of safety measures among patients with seizure.**

**Alternate hypothesis $H_1$:** The mean post-test knowledge score regarding promotion of safety measures among patients with seizure will be higher than the mean pre-test knowledge score among the sample.

**Statistical hypothesis $H_{01}$**: There is no significant difference between the mean pre-test and post-test knowledge score regarding promotion of safety measures among patients with seizure.

To test this hypothesis, statistical test, paired ‘t’ test was used.
Table-4.2: Mean, Standard deviation, Range, Mean score percentage, Mean difference, overall mean pre-test and post-test knowledge score and paired ‘t’ test value regarding promotion of safety measures among patients with seizure.

<table>
<thead>
<tr>
<th>S No</th>
<th>Areas of knowledge</th>
<th>Maximum possible score</th>
<th>Pre–test level of knowledge</th>
<th>Post–test level of knowledge</th>
<th>Paired mean difference</th>
<th>Paired ‘t’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Range</td>
<td>Mean</td>
</tr>
<tr>
<td>1</td>
<td>General information about seizure</td>
<td>6</td>
<td>2.5</td>
<td>1.08</td>
<td>1 - 5</td>
<td>4.66</td>
</tr>
<tr>
<td>2</td>
<td>Safety measures</td>
<td>9</td>
<td>3.5</td>
<td>1.23</td>
<td>1 - 6</td>
<td>7.63</td>
</tr>
<tr>
<td></td>
<td>Overall score</td>
<td>15</td>
<td>6</td>
<td>2.31</td>
<td>2-11</td>
<td>12.29</td>
</tr>
</tbody>
</table>

*Significant P<0.05 Level of significance ; Table value 2.045; df=29

n = 30
The overall maximum possible score for general information about seizure is 6, maximum possible score for safety measures in patients with seizure is 9 and the entire tool was 15. The mean pre-test score of overall knowledge was 6 and the mean post-test score was 12.29.

The statistical significance was assessed by comparing the mean pre-test and mean post-test knowledge score regarding promotion of safety measures among patients with seizure. The paired ‘t’ values were found highly significant in all areas of knowledge at p<0.05 level of significance.

This indicated the Self Instructional Module was significantly effective to improve knowledge regarding promotion of safety measures among patients with seizure. Hence the research hypothesis H1 was accepted.

SECTION-III: Analysis of the pre-test and post-test level of knowledge regarding promotion of safety measures among primary caregivers of patients with seizure.

This section deals with details of analysis in regard to pre-test knowledge score and post-test knowledge score by using self administered questionnaire regarding promotion of safety measures among primary care givers of patients with seizure. This section is divided into following headings,

a. Knowledge score regarding promotion of safety measures among primary caregivers of patients with seizure.

b. Mean, SD, range, paired mean difference, paired ‘t’ value, mean score percentage of area wise and overall mean pre-test and post-test knowledge score on promotion of safety measures among primary care givers of patients with seizure.
Section-III(a): Knowledge score regarding promotion of safety measures among primary caregivers of patients with seizure.

Fig-4.2: Bar diagram on the level of mean pre–test and post-test score regarding promotion of safety measures among primary caregivers of patients with seizure.

Fig-4.2 shows that in pre-test 24(80%) samples had inadequate knowledge, 6(20%) had moderate knowledge. In post-test 21(70%), 9(30%) had moderate knowledge.

The data analysis showed that no one had adequate knowledge in Pre test and after exposed to SIM, 21 primary care givers had gained adequate knowledge.
Section-III(b): Mean, SD, range, paired mean difference, paired ‘t’ value, mean score percentage of area wise and overall mean pre-test and post-test knowledge score on promotion of safety measures among primary care givers of patients with seizure.

Alternate hypothesis $H_2$: The mean post-test knowledge score regarding promotion of safety measures among primary care givers of patients with seizure will be higher than the mean pre test knowledge score.

Statistical hypothesis $H_{02}$: There is no significant difference between the mean pre-test and post-test knowledge score regarding promotion of safety measures among primary care givers of patients with seizure.

To test this hypothesis, statistical test paired ‘t’ test was used.
Table-4.3: Mean, Standard deviation, Range, Mean score percentage, Mean difference, overall mean pre-test and post-test knowledge score and paired’ t test value regarding promotion of safety measures among primary care givers of patients with seizure.

\[ n = 30 \]

<table>
<thead>
<tr>
<th>S No;</th>
<th>Area of knowledge</th>
<th>Maximum possible score</th>
<th>Pre – test level of knowledge</th>
<th>Post – test level of knowledge</th>
<th>Paired mean difference</th>
<th>Paired ‘t’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Range</td>
<td>Mean</td>
</tr>
<tr>
<td>1</td>
<td>Care during and after seizure</td>
<td>15</td>
<td>5.83</td>
<td>1.88</td>
<td>3 - 10</td>
<td>12.27</td>
</tr>
<tr>
<td></td>
<td>Overall score</td>
<td>15</td>
<td>5.83</td>
<td>1.88</td>
<td>3 - 10</td>
<td>12.27</td>
</tr>
</tbody>
</table>

*Significant P<0.05 Level of significance; Table value 2.045; df = 29
The overall maximum possible score for care of patients during and after seizure was 15. The mean pre-test score of overall knowledge was 5.82 and the mean post-test score was 12.27.

The statistical significance was assessed by comparing the mean pre-test and mean post-test knowledge score regarding promotion of safety measures among primary care givers of patients with seizure. The paired ‘t’ values were found highly significant in all areas of knowledge at p<0.05 level of significance.

This indicated the Self Instructional Module was significantly effective to improve knowledge regarding promotion of safety measures among primary care givers of patients with seizure. Hence the research hypothesis $H_2$ was accepted.

SECTION-IV: Association between the mean pre-test knowledge score regarding promotion of safety measures among patients with seizure and their demographic variables.

This section deals with the association between the mean pre-test knowledge score regarding promotion of safety measures among patients with seizure and their demographic variables (age in years, educational status).

Alternate hypothesis $H_{3(a)}$: There will be significant association between the pre-test knowledge level on promotion of safety measures among patients with seizure and their age.

Statistical hypothesis $H_{03(a)}$: There is no significant association between the mean pre-test knowledge score regarding promotion of safety measures among patients with seizure and their age.
Table-4.4: Chi square value on mean pre-test knowledge score among samples and their age in years.

<table>
<thead>
<tr>
<th>S. No</th>
<th>Demographic variables</th>
<th>Chi – square value</th>
<th>df</th>
<th>Table value at P&lt;0.05 level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age in years</td>
<td>4.85(N.S)</td>
<td>4</td>
<td>9.49</td>
</tr>
</tbody>
</table>

N.S – Not Significant at P<0.05 level

Data presented in the table-4.4, revealed that the calculated Chi-square value was 4.85, less than the table value 9.49 which indicate that no association between pre-test knowledge score and their age in years. Hence the statistical hypothesis $H_{03(a)}$ was accepted.

**Alternative hypothesis $H_{3(b)}$:** There will be significant association between the mean pre-test knowledge score on promotion of safety measures among patients with seizure and their educational status.

**Statistical hypothesis $H_{03(b)}$:** There is no significant association between the mean pre-test knowledge score regarding promotion of safety measures among patients with seizure and their educational status.
Table- 4.5: Chi square value on mean pre-test knowledge score among samples and their educational status.

<table>
<thead>
<tr>
<th>S. No</th>
<th>Demographic variables</th>
<th>Chi – square value</th>
<th>df</th>
<th>Table value at P&lt;0.05 level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Educational status</td>
<td>3.85(N.S)</td>
<td>2</td>
<td>5.99</td>
</tr>
</tbody>
</table>

N.S – Not Significant at P<0.05 level

Data presented in the table 4.5, revealed that the calculated Chi – square value was 3.85, was less than the table value 5.99 which indicate that no association between pre-test knowledge score and their educational status. Hence the statistical hypothesis $H_{03(b)}$ was accepted.

SUMMARY

This chapter dealt with analysis and interpretation of data collected through self administered questionnaire on promotion of safety measures among patients with seizure and primary care givers. The pre-test knowledge score was associated with their demographic variables. The research hypotheses were tested and the associations between the pre-test knowledge score with their selected demographic variables were assessed.

CHAPTER V
DISCUSSION
The aim of the study was to assess the effectiveness of SIM regarding promotion of Safety measures among patients with seizure and primary care givers in selected Hospitals at Salem.

**The first objective was to develop and validate Self Instructional Module (SIM) regarding promotion of safety measures for patients with seizure and primary care givers.**

In this study Self Instructional Module was prepared by the researcher and it was very effective in promotion of safety measures among patients with seizure and their primary care givers. After the exposure to SIM post-test was assessed by using self administered questionnaire regarding promotion of safety measures on seizure. The SIM regarding promotion of safety measures on seizure had showed an effective response in the improvement of the knowledge among patients with seizure and primary care givers. Moreover the individual approach of providing SIM was more effective and the sample could clarify their doubts and able to read whenever they required.

**This finding was supported by following studies.**

Fernandes, (2003) conducted a study regarding Training the trainers and disseminating information, a strategy to educate health professionals on epilepsy. The purpose of the study was to evaluate the knowledge, attitude and perceptions of epilepsy in primary care system health professionals before and after Self instructional Educational Programme. Pre-test and Post-test was done using self administered questionnaire on epilepsy. Results of the study showed that knowledge scores before and after Self Instructional Educational Programme had improved knowledge, attitude and perception.

Valerie price, and Susan Murphy, (2004) conducted a study to improve self efficiency and knowledge through a education programme regarding seizure among 28 special education teachers. The results of the
intervention showed that there was an increase in knowledge skills and self efficiency and they were able to interact supportively with their families.

The second objective was to assess the knowledge score on Safety measures regarding seizure management before and after exposed to SIM among patients with seizure and primary care givers.

In the present study, pre-test knowledge of seizure patients and primary care givers regarding promotion of safety measures was inadequate and moderate. In mean pre-test knowledge score, 80% had inadequate knowledge and 20% had moderate knowledge where as in post-test 66.67% had adequate knowledge and 33.33% had moderate knowledge. The knowledge level has increased after exposed to SIM.

This finding was supported by following studies.

McNeil’s, Angela M, (2000) conducted a feasibility study on psycho educational family intervention:”Be Seizure Smart, which contains information regarding management of seizure and epilepsy. Its main motive was to improve the knowledge, attitudes and to increase family functioning. The participants were 10 families of children with epilepsy. The results showed that knowledge scores increased for both parents and children. Rosa Angel Fabio, and Samantha Gannatiempen, (2010) conducted a study on the increase of attention in Rett Syndrome. A pre test/ post test research design was used. The aim of the study showed that girls with Rett Syndrome can increase high attention abilities through well structured procedures. The research was carried out in twelve girls with five phases using a pre-test/post-test design for clinical research. Results pointed out the girls with Rett Syndrome showed an improvement in selective attention and a decrease in help needed during the training.
The third objective was to find out the association between pre-test level of knowledge score regarding promotion of safety measures among patients with seizure and their selected demographic variables (Age in years, Educational status).

In this study association was analyzed by using chi–square between pre-test knowledge score regarding promotion of safety measures among patients with seizure and their selected demographic variables.

No significant association was found between the pre-test knowledge score regarding promotion of safety measures among patients with seizure with their age in years and educational status.

During this study I did pre-test for 48 samples but post-test was done only for 30 samples. Because of the unavailability of those samples. During post-test time many patients and primary caregivers told that the SIM was very beneficial to them as it contain the necessary information about the promotion of safety measures among patients with seizure and primary caregivers.

SUMMARY

This chapter dealt with the objectives and how and the discussion between present study and supportive study.

CHAPTER VI

SUMMARY, FINDINGS, IMPLICATIONS, RECOMMENDATIONS AND CONCLUSION
This chapter dealt with summary of findings and implications in various areas of nursing practice, nursing education, nursing administration, nursing research, suggestion and recommendations for further study.

SUMMARY OF THE STUDY

The main objective of the study was to evaluate the effectiveness of SIM regarding promotion of safety measures among patients with seizure and their primary care givers in selected Hospitals at Salem. Association was also done between the mean pre test knowledge score and their selected demographic variables.

A pre-experimental research method, one group pre- test and post – test design was undertaken to assess the knowledge regarding promotion of safety measures among patients with seizure and primary care givers. Betty Neumann’s System Model theory was used as conceptual frame work of the study. The total sample size was 30 patients with seizure and primary care givers. The tool selected for the present study was self administered questionnaire regarding promotion of safety measures among patients with seizure and primary care givers.

The tool was validated by 5 experts. The reliability of the tool was established by the formula of split half method for knowledge and the reliability was \( r' = 0.84 \) for patients with seizure and \( r' = 0.81 \) for primary care givers of patients with seizure.

After the pilot study actual data collection was done by using the same tool. The researcher introduced herself to the sample and obtained the written consent from them. On the first day pre–test was done by using structured self administered questionnaire for knowledge. On the same day SIM was administered and necessary clarifications were given as and when needed. On the 8\(^{th}\) day post- test was done.
MAJOR FINDINGS OF THE STUDY

- The analysis of the study shows that majority of the samples were males (63%).
- Majority of samples (27%) belongs to the age group 41 – 50.
- Majority of samples (33%) had the duration of illness as newly diagnosed and one year.
- Majority of them (57%) had higher secondary education.
- Majority of them (40%) had head injury as pre disposing factor.
- The main pre – test score for knowledge for patients with seizure was (40%) and mean post – test score was (82%), $C_{29} = 19.08$ is more than table value at $P<0.05$ level of significance.
- The main pre – test score for knowledge for primary care givers of patients with seizure was (36%) and mean post – test score was (82%), $C_{29} = 13.68$ is more than table value at $P<0.05$ level of significance.
- The association between pre test knowledge score and their selected demographic variables/ age in years, educational status showed no significance.

Thus the result suggested that SIM was effective in promotion of safety measures among patients with seizure and primary care givers.

IMPLICATIONS

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

Nursing Practice:

Nurses are involved in all phases of care like prevention, detection, diagnosis and treatment. Seizure is a problem faced by many people due to
the effect of irregular intake of medications and stress. The study concluded that the SIM was effective in increasing knowledge of the patients with seizure and their primary care givers and thereby reducing the incidence and reoccurrence of seizure.

Nurses play a vital role in the health care delivery system and today more emphasis is given on self reliance and client participation health care system.

By using teaching strategies that are best suited to the clients, nurses can motivate them to improve their knowledge.

The result of the study showed that those who participated had improved knowledge on promotion of safety measures among patients with seizure and primary caregivers. The SIM will help clinical nurse to teach about regular intake of medicine, good sleep and rest, and regular follow up for patients with and primary caregivers.

Nursing Education:

The nursing curriculum should emphasize in imparting knowledge to newly diagnosed client by using SIM. The findings of the study will help the nurses who are working in teaching area to prepare students to acquire knowledge regarding identification of the problem at the earliest and understand the importance of initiating the SIM to reduce the recurrent seizure. Every student should be encouraged in providing information to the client and to the community and they have to be prepared properly.

Nursing Administration:

Health personnel are playing a vital role in providing education to the adult. Nursing personnel should be prepared to take leadership role in
educating the nurses, Community health workers and other health personnel to provide health education to patients with seizure and their primary care givers to create awareness about seizure and safety measures regarding seizure management. For that the administrator has to conduct continuing nursing education or in-service education programme for all staff nurses regarding promotion of safety measures on management of seizure. It is also necessary to nursing administration that they should take adequate steps in formulating policies in providing patients education and also plan for Man Power, Money, Material, Methods and Time to conduct successful and useful patient education programme.

**Nursing Research:**

The study revealed that there is a knowledge deficit regarding seizure and its safety measures. It analyses a great need for research and awareness on effectiveness of SIM regarding promotion of safety measures among patients with seizure and their primary care givers.

The findings of the study can be utilized for conducting a follow up study among the study group to find out the impact of knowledge regarding seizure and its safety measures.

**LIMITATION**

- Interaction was done only one time as the samples were coming for O.P consultation.

**RECOMMENDATIONS**

- A similar study can be repeated by taking a large sample.
- A similar study can be done by taking a control group.
- A study can be undertaken to identify the reoccurrence of seizure with follow up of one year.
• A study can be conducted to identify the attitude and practices of patients with seizure by community nurses.

CONCLUSION

The mean pre-test score reveals inadequate knowledge regarding promotion of safety measures among patients with seizure and their primary care givers. After exposure to SIM the group showed adequate knowledge. This reveals that Self Instructional Module regarding promotion of safety measures among patients with seizure and their primary care givers were effective.

SUMMARY

This chapter dealt with discussion summary, implications, limitations, recommendations, and conclusion of the study.

REFERENCES


GUIDELINES FOR THE USE OF SELF INSTRUCTIONAL MODULE

Self instructional module is one of the educational material that helps individualized learning. It is important to go through the module in schematic way.

• Take your own time to read this material slowly and carefully in the place/room provide for you in the hospital premises.
• In case if you have any doubt regarding the content make a note and clarify with the investigator.
• Try to answer the question given at the end when you find any leisure time.
• Compare your answer with the key answer provided.

SELF INSTRUCTIONAL MODULE ON PROMOTION OF SAFETY MEASURES ON MANAGEMENT OF SEIZURE

INTRODUCTION:

This is a self explanatory booklet on promotion of safety measures for patients with seizure and primary care givers of the patients. Some of the valuable information is given in this Self Instructional Module (SIM) for you; which will be very useful and informative for you in your practical life.
CHAPTER – 1
NEURONS AND FUNCTIONS OF BRAIN

NEURONS:

We are amazingly efficient and blessed with the nervous system in our body. Nervous System consist of vast number of cells called Neurons. Neurons pass messages from one to another to take information in form of our senses and control our thoughts and activities.

To send a message, the neurons wants a messenger. We called that messenger as Chemical Messenger. The chemical messenger travels to the next neuron and pass the message. If the amount of chemical messenger is enough, the neurons will receiving the message in the form of Electrical charges. Changes that takes place in these electrical charges producing a electrical wave which is called Firing. Once a neuron fires ; it sends the message along to all the other neurons it is in contact with.

During transmission of messages; there are some chemical transmitters which will freeze the neuron to prevent the brain from having too much activity to handle. There are also some unfreeze messengers which will help to pass the messages to
all other neurons. So the passing of message from one neuron to another is a combined action of freeze and unfreeze messengers of the nervous system.

**HOW SEIZURE HAPPENS**

If there is not enough freeze messengers a seizure can happen. A seizure happens when too many messages are going around the brain at once, all at the same time.

**BRAIN**

Brain is one of the most important part of our body. Without brain there is no meaning for our life. The brain cells (neurons) helps us to carry out many actions and thoughts throughout our life. Any alteration in the brain happens means, the whole body function will be altered.

**Important parts of a Brain**
The important parts of a brain are  
  a) Cerebrum  
  b) Midbrain  
  c) Pons  
  d) Medulla Oblongata  
  e) Cerebellum

**Functions of brain**

- Brain helps in the mental activities which involve memory, intelligence, sense of responsibility, thinking, reasoning, moral sense and learning.
- Sensory perception of pain, temperature, touch, sight, hearing, taste and smell.
- Helps in fine control of skeletal muscle movements and function.
- Helps in fine control of complex movements and learned co-ordinated activities.
- Helps to sense appetite, thirst, pleasure, fear, sleeping and waking cycles.
- Controls the rate and rhythm of heart.
- Controls the blood pressure.
- Helps in initiating respiration and it also controls the rate and depth of respiration.
- Helps in maintaining posture and balance.
- Helps in language process.

**SUMMARY**
This chapter deals with Neurons in nervous system, its functions, how seizure happens, Brain and its function. The co-ordinated function and balance between the neurons and the brain helps us to live in this beautiful world.

Exercise no. 1
i. A vast number of cells present in nervous system is called ______
ii. The messenger that passes message from one neuron to another is____
iii. Neurons receiving the message in the form of____
iv. Too many messages going around the brain at the same time will leads to ______
v. ______ helps in mental activities like memory, intelligence, thinking, reasoning and learning.
Seizure is a disorder that affects the nervous system of our body. When too many messages are going around the brain at once all at the same time, seizure will occur.  

**Can seizure be cured?**

Seizure cannot be cured in the real sense of the term. Seizure is a disease like diabetes mellitus, hypertension and asthma. But seizure can be completely controlled by following some of the safety measures.

**Facts and Myths about seizure.**

**Facts.**

- Seizure can occur at any time in life and for any people.
- The leading cause of seizure in adults is head injury caused by automobile accidents.
- The leading cause of seizure for those above 65 years is stroke.
- People with seizure are not violent or crazy.
- People with seizure are not mentally ill.
- Seizure is not a curse.
- Seizure is not be a barrier to success in life.

**Myths**

- A person with seizure can’t be go for Education.
- A person with Seizure can’t get Job.
- A person with seizure can’t get marry.
- Seizures are thought to be caused by possession by demons.
- Seizure is a curse.

**Meaning of seizure:**

A seizure is a sudden disruption of nerve cells of brain’s normal electrical activity, which can cause a loss of consciousness and make the body to jerk. It cause a change in behaviour characterized by changes in sensory perception (sense of feeling) or motor activity.
**Causes of seizure:**

a) High fever  
b) Brain infections (Meningitis, tetanus, malaria)  
c) The triggering factors like Lack of sleep and stress.  
d) High level of sugar and sodium in blood.  
e) Low level of sugar, calcium and magnesium.  
f) Kidney or Liver failure.  
g) Alcohol abuse.  
h) Insufficient oxygen supply to brain  
i) Cigarette smoking.  
j) Congenital abnormalities  
k) Increased blood pressure.  
l) Reaction to some medication.

**How Seizure Occur**

We have seen in chapter – 1, that there are clusters of nerve cells in the brain called neurons. A person’s thoughts, feelings and actions are produced by electro chemical impulses that the neurons generate. When too many messages are going around the brain, the messages are going to get mixed up. Thus during a seizure, the neurons send mixed up messages to your body, so the body does things that you don’t want it to. Anything the brain or body can do it can do as a result of seizure. Usually the neurons send signals around 80 times a second. During seizure, neurons may fire as many as 500 times a second.

**Types of seizure:**

Seizures are mainly classified into  
a) Generalized seizure  
b) Partial seizure
Generalized seizure start in the whole brain at once, it includes:

a) Absence seizure
b) Tonic-clonic seizure
c) Atonic seizure

Partial seizures start in a small part of the brain and stay there. They are of two kinds

a) Complex partial seizure where conscious is changed or lost.
b) Simple partial where the person is conscious for the whole thing.

**Aural stage of seizure:**

Partial seizures can have the capacity to spread to whole brain, causing generalized seizure. In this case, Partial seizure is then called an aure, because it is a warning that a bigger seizure is coming. It is characterized by odd smell, taste, simple convulsions and visual disturbances.

**Signs and Symptoms of Seizure:**

The symptoms of a seizure depend upon the area of the brain affected. If small areas are affected aural stage symptoms will be there and if large portions of brain are affected, then the person will have

a) Jerk and muscle spasm
b) Altered or loss of consciousness
c) Loss of bowel or bladder control
d) Confusion
e) Speech arrest
f) Motionless stare
g) Exessive salivation
h) Anxiety, weakness, irritability, dizziness, changes in appetite.
i) Light-headedness
j) Tongue or cheek biting
k) Cyanosis
l) Unexpected falls with physical injury
Complications

a) Severe injury

b) Status epileptics: It is a state of continuous seizure activity or a condition in which seizures reoccur in rapid succession without return to consciousness between seizures.

Diagnosis of seizure

- Taking an Encephalogram
- Magnetic Resonance Imaging
- Computed Tomography
- Blood analysis

These are the main methods to diagnose a seizure. These tests will reveal the abnormality which leads to seizure. These will give clear cut images of your brain and its nerve cells.

Summary

This chapter deals with the Facts and Myths about seizure, Meaning of Seizure, Causes, How seizure occurs, types, Signs and symptoms, Complications and Diagnosis of a Seizure. Seizures are caused mainly due to abnormal electrical activity of the brain nerve cells.

EXERCISE NO: 2

Try to answer the following questions.

i. _____ gives as information (warning) that a bigger seizure is coming.

ii. _____ is the result of abnormal electrical activity of brain nerve cells.

iii. _____ is a complication of seizure, which causes repeated reoccurrence of seizures without consciousness between seizures.

iv. _____ type of seizure affects a small portion of brain
v. ___ is the leading cause of seizure in people above 65 years old.

CHAPTER III
SAFETY MEASURES ON MANAGEMENT OF SEIZURE

This section is going to deal with the safety measures that the patient and the primary care giver have to follow before, during and after a seizure attack.

Section- 1
Promotion of safety measures on management of seizure- To the Patients with Seizures.

The main areas that section -1 deals with

• Instruction regarding drug treatment of seizure
• Instruction regarding Employment and Driving
• Instruction regarding marriage and pregnancy
• Instruction regarding recreational activities
• Instruction regarding relaxation techniques
• Instruction regarding dietary pattern

1) Instruction regarding drug treatment of seizure

Things to be kept in mind while taking anti-epileptic drugs

1. The aim of taking antiepileptic drugs is to obtain adequate control of fits
2. Your brain need a constant maintenance of antiepileptic drugs to control seizures, so you have to take medications regularly.

3. Don’t withdrawal the medication until prescription of the doctor.

4. If you have no fits for 4 to 5 years after withdrawal of drug, reoccurrence of seizure will become extremely small.

5. Don’t stop antiepileptic drugs when you are taking other medications for other diseases.

6. If you vomit within an hour after taking anti-epileptic drug, take an extra dose medication after some time.

7. If you forget to take a dose of drug, take an extra tablet within same 24 hours period.

8. Don’t drink alcohol when you are under anti-epileptic drug treatment.

9. Mothers having seizure can safely breast feed their babies while taking anti-epileptic drugs, if any problem arises, they should consult their treating doctor.

10. Some anti-epileptic drug have a side effect of causing gingivitis in mouth, so you should keep the mouth clean and tidy.

2) Instruction regarding Employment and Driving.

a) If you are well and completely controlled without any disabilities from seizure, then you can work in any job which is not disturbing.

b) The jobs not recommended for a person with seizure are defence services, working with unguarded machinery, fire services, Railway engine driver.

c) Persons whose fits are not controlled should not drive any vehicle.

d) Persons with seizure should wear helmet and seat belt while travelling.
e) Persons with seizure should wear Medical alert Tag which should contain your name, age, diagnosis, address and phone number of nearest relative.

3) Instruction regarding Marriage and Pregnancy.
   a) Persons with seizure can marry, if seizure is in good control.
   b) The spouse of the person should be aware of the situation.
   c) Poor controlled seizure patients can’t marry, as it will cause problems.
   d) The anti-epileptic drugs must be continued in the same dosage during entire pregnancy.
   e) Treatment with one drug is preferred during pregnancy.
   f) Antenatal Mothers on seizure treatment should attend regular antenatal visits.

4) Instruction regarding recreational activities
   a) If you are in good seizure control, you can participate in non strenuous activities.
   b) Avoid athletic activities like fast running jumping etc.
   c) Swimming can do under supervision.
   d) Remember to carry sufficient medicine while travelling and take them at scheduled time.
   e) Flying in aeroplane is also safe, but you should inform to the staffs in advance.

While watching T.V and working in computer
   a) Sit or stand as far from screen as possible.
   b) Do not watch T.V if you are tired or need sleep.
   c) Watch T.V in a well lighted room.
   d) Avoid excessive play and work in computer, it will weakened the brain function.
e) If you continue to have any discomfort (tingling, numbness, stiffness etc..) see a doctor immediately.

**Instruction regarding relaxation techniques to reduce stress**

Relaxation allows the body to heal from within.

- Sit in a comfortable position:
- Place your hands in a resting state on your lap
- Close your eyes.
- Take a deep breath.
- Relieve the breath slowly.
- Do this for 10 to 30 minutes in a day.

**Instruction regarding dietary pattern**

a) Drink plenty of water.

b) Flesh foods like chicken and mutton are good.

c) Rice, Nuts, Eggs, can also eat.

d) Diet should not be ignored in any circumstances.

**SECTION – 2**

**Promotion of safety measures on management of seizure among primary care givers of patients with seizure.**

The main areas this section deals with:

- Care of patients during seizure.
- Care of patient after seizure.
- Prevention of seizure related injury.

**Instruction regarding care of patients during seizure**

- Don’t try to restrain the person
- Remove objects that could cause injury.
- Loosen tight clothing.
- Turn the head or whole body to the side to drain
saliva from mouth.

- Nothing to be inserted between the mouth during seizure.
- Do not attempt to give CPR during seizure.
- If the person turns blue or stop breathing CPR can be performed after seizure.
- If the seizure continues for more than 5 minutes or if not responding, seek medical help.
- Stay near to the patient and speak kindly.

**Instruction regarding care of patient after seizure**

- Treat if there is any injury.
- Record all details like
  a) When seizure started
  b) How long it lasted.
  c) What body parts were affected
  d) Any specific symptoms like confusion, head ache, fever, vomiting.
  e) How the person behave before and after the seizure.
- Allow the patient for a sound sleep.
- Do not offer anything (food or water) until the patient is fully alert and awake.
- Do not disturb while the patient is sleeping.
- After waking, check whether the patient is oriented or not.

**When to seek emergency help**

When the patient have,
- Inability to walk or stand
- Fever

**Guidelines for primary care givers of a seizure patient**

- Be conscious about the signs & symptoms of aural stage of seizure
• Place the patient on a flat surface during seizure
• Provide a calm environment
• Stay near the patient
• Remove all the materials which harm the patient
• Never try to move the patient during seizure
• If the patient is having high fever, take necessary action immediately
• A medical alert card should always be with the patient when he goes out, which should have the following information: name, address, phone number, diagnosis
• Check whether the patient gets adequate sleep
• Check whether the patient takes drugs regularly
• Avoid the social stigma
• Stressful events with seizure patients must be done in a careful manner.
• Prepare the patient psychologically both for success and failure in any attempt.

Summary

This chapter deals with the promotion of safety measures on management of seizure. This chapter includes 2 sections. Section – I deals with the safety measures for patients with seizure and section – II deals with the safety measures for the primary care giver to undertake during a seizure.
Exercise III

Try to answer the following questions
1) Restrain the patient during seizure
   a) True    b) False
2) Put any hard object in to the mouth during seizure to avoid tongue biting.
   a) True    b) False
3) Relaxation techniques can reduce stress
   a) True    b) False
4) If the patient loss breathing during seizure, start CPR
   a) True    b) False
5) Keep the patient in supine position during seizure.
   a) True    b) False

KEY ANSWERS

Exercise No -1
- Neurons
- Chemical messenger
- Electrical charges
- Seizures
Brain

**Exercise No-2**
- Aural stage
- Seizure
- Status Epilepticus
- Partial seizure
- Stroke

**Exercise No-3**
- False
- False
- True
- False
- False
- False

**CONCLUSION**

From this booklet (SIM), it is clearly understood that on the whole, the future of persons with seizure is definitely bright and those affected can certainly look forward to a much better quality of life. In order to attain this, you should promote the safety measure that you have read and follow it without fail.
ANNEXURE - I

LETTER SEEKING PERMISSION FOR RESEARCH STUDY

Letter seeking permission for conducting research study

From
Mrs. Anuja Justin
I.Iyr Msc (N)
Shanmuga College of Nursing, Salem

To
Dr. Sundaram Rajan P
Mech (Aeromed)
Name: Sunny

Through
Principal
SCON, Salem-636007

Respected madam

Sub: requesting permission for conducting research study- reg

I am II year Msc (N) student of Shanmuga college of nursing, Salem. As a partial fulfillment of Master of Science in Nursing, I have undertaken the following research study.

Research study

“The study to evaluate the effectiveness of Self Instructional Module (SIM) on knowledge regarding promotion of safety measures among patients with Seizure and primary care givers in Out Patient Department of selected Hospitals at Salem.”

In this regard I seek permission to conduct the study in your Hospital. I assure that my presence will not disturb the routine function of your hospital.

Thanking you in anticipation

Date

Your’s sincerely

Anuja Justin

ANNEXURE – II
LETTER SEEKING EXPERT OPINION FOR CONTENT VALIDITY OF TOOLS AND INDEPENDENT VARIABLE

From,
Anuja Justin
II-Yr M.Sc(N)
Shanmuga College of Nursing, Salem.

To,

Through,
The Principal
Shanmuga College of Nursing
Salem – 636007

Respected Madam/Sir,

Sub: Request for validation of the tool and independent variable.
I am M.Sc (N) IIyr student of Shanmuga College of Nursing, Salem. As a partial fulfilment for Master of Science in Nursing, I have undertaken the following research study which has to be submitted to the Tamil Nadu Dr. M.G.R Medical University, Chennai.

Research Study
“The study to evaluate the effectiveness of Self Instructional Module (SIM) on knowledge regarding promotion of safety measures among patients with seizure and primary care givers in selected Hospitals at Salem.”

To achieve the objective of dissertation I have prepared the following tool
1. Tool-1: Demographic Variable
2. Tool-2: Self Administered questionnaire regarding promotion of safety measures among patients with seizure.
3. Tool-3: Self Administered questionnaire regarding promotion of safety measures among primary care givers of patients with seizure.

Thanking You in anticipation

Place:
Date:

Your’s sincerely

ANUJA JUSTIN

Enclosures
1. Statement of the problem and objective
2. Demographic Variable
3. Self Administered questionnaire regarding promotion of safety measures among patients with seizure.
4. Self Administered questionnaire regarding promotion of safety measures among primary care givers of patients with seizure.
5. Independent variable
6. Content Validity Certificate
7. Evaluation criteria for content validity of tool and Independent variable
8. Self addressed Envelope

ANNEXURE – III
LIST OF EXPERTS WHO VALIDATED THE TOOL AND INDEPENDENT VARIABLES

1. Mrs. RENU,
   Principal,
   M.G.M Muthoot College of Nursing,
   Pathanamthitta, Kerala.

2. PROF. PRATHIBHA SWAMY,
   Vice – Principal,
   Dept. of Medical Surgical Nursing,
   NIMHANS, Bagaluru

3. Mrs. SINDHU,
   Vice-Principal,
   Medical Surgical Nursing Department,
   M.G.M Muthoot Medical Centre,
   Kozhencherry, Kerala.

4. Dr. S.R CHANDRA,
   Professor of Neurology,
   NIMHANS, Bangalore.

5. Dr. ROSEBIST P.K,
   Assistant Professor,
   Govt. Medical College Hospital,
   Thiruvananthapuram, Kerala
ANNEXURE – IV
EVALUATION CRITERIA FOR VALIDITY OF TOOL

Dear Sir/ Madam,

Kindly go through the tool and give response in the columns given in the criterion table against each question. I kindly request you to give suggestion on the content of the tool. Please give your expert comments on the agree/disagree which will help in modification of tool.

**TOOL – 1**

<table>
<thead>
<tr>
<th>S.NO</th>
<th>Demographic variables</th>
<th>Level of acceptance</th>
<th>Remarks</th>
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<tr>
<td></td>
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<td>Agree</td>
<td>Disagree</td>
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<td><strong>DETAILS OF THE PATIENT</strong></td>
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<tr>
<td>1</td>
<td>Gender</td>
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<td></td>
<td>a. Male</td>
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<td>b. Female</td>
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<td>2</td>
<td>Age in years</td>
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<td></td>
<td>a. 20 – 30</td>
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<td></td>
<td>b. 31 -40</td>
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<td></td>
<td>c. 41 – 50</td>
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<td></td>
<td>d. 51- 60</td>
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<td></td>
<td>e. &gt;60</td>
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<tr>
<td>3</td>
<td>Duration of illness</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Newly diagnosed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Educational status
- a. Primary school
- b. Higher secondary
- c. Under graduate
- d. Post graduate

### Pre-disposing factor
- a. Head Injury
- b. Brain Surgeries
- c. Hereditary
- d. Fever

<table>
<thead>
<tr>
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<th>Remarks</th>
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<tr>
<td></td>
<td></td>
<td>Agree</td>
<td>Disagree</td>
</tr>
<tr>
<td>6</td>
<td>Family member in health profession</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>a. Doctor</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Nurse</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Physiotherapist</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Pharmacist</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. Any other</td>
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**DETAILS OF PRIMARY CARE GIVERS**

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<td>S. NO</td>
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</tbody>
</table>

**General Information About Seizure**

1. Which among the following is a cell in nervous system?
   a. Neurons
   b. Germ cells
   c. Epithelial cells
   d. Stem cells

2. In which form one nerve cell transmit information to another nerve cell?
   a. Chemical transport
   b. Electrical charges
   c. Blood transport
   d. Through muscles

<table>
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<td>b. Higher secondary</td>
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<tr>
<td>c. Under graduate</td>
</tr>
<tr>
<td>d. Post graduate</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>Relationship with patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Father</td>
</tr>
<tr>
<td>b. Mother</td>
</tr>
<tr>
<td>c. Spouse</td>
</tr>
<tr>
<td>d. Siblings</td>
</tr>
<tr>
<td>e. Any other</td>
</tr>
</tbody>
</table>

**TOOL – II**
### What is the meaning of seizure?
- Abnormal electrical activity of nerve cell
- Decreased blood supply to brain
- Jerky movement of the body
- Loss of consciousness of the body

### Which of the following can cause seizure?
- Lack of interest
- Intake of specific foods
- Triggering factor
- Road Traffic Accident

### Which of the following habit can aggravate seizure?
- Alcoholism
- Smoking
- Chewing of Betel leaves
- Over intake of drugs

### Which is the main of seizure cause in adults?
- Heart attack
- Headache
- Head Injury
- Stress and Strain

### SAFETY MEASURES

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<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td>7</td>
<td>What will you do when you forgot to take a dose of anti – epileptic drug?</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>a. Take an extra tablet within 24 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Won’t take any medication on that day</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Take half tablet immediately</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
d. Take one more tablet on next day

<table>
<thead>
<tr>
<th>8</th>
<th>Which type of drink is more harmful for health while taking anti-epileptic drug treatment?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Fruit juices</td>
<td></td>
</tr>
<tr>
<td>b. Soda lime water</td>
<td></td>
</tr>
<tr>
<td>c. Alcohol</td>
<td></td>
</tr>
<tr>
<td>d. Tender coconut water</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S. NO</th>
<th>Structured Questionnaire</th>
<th>Level of acceptance</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Which type of jobs should be avoided?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Defence services and fire services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Teaching and office work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Nursing and business works</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Social works</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Which of the following is the right answer?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Seizure patients should not drink alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Seizure patient can continue drinking alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Seizure patients can drink alcohol occasionally</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Seizure patients should not drink alcohol during seizure.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>11</td>
<td>Which is the important management of seizure?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Take anti-epileptic drugs regularly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Drink plenty of water</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Eat adequate food</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Take adequate rest and sleep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>What is your opinion about marriage?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
a. Can marry  
b. Not to get marry  
c. No one will be marry  
d. I am not eligible

<table>
<thead>
<tr>
<th>S. NO</th>
<th>Structured Questionnaire</th>
<th>Level of acceptance</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Why relaxation techniques are important?</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 13    | a. To reduce stress  
     | b. To reduce heart burn  
     | c. To promote circulation  
     | d. To promote messages to brain           |                     |         |
| 14    | **Of the following which type of recreational activities should be avoid?**             |                     |         |
|       | a. Swimming  
     | b. Hearing music  
     | c. Reading books  
     | d. Walking                                     |                     |         |
| 15    | **When you will go for a follow – up?**                                                 |                     |         |
|       | a. Regularly Once in a month  
     | b. After one seizure attack  
     | c. After 3 or more seizure attack  
     | d. Immediately after seizure                  |                     |         |
## TOOL-III

<table>
<thead>
<tr>
<th>S. No</th>
<th>Structured questionnaire</th>
<th>Level of acceptance</th>
<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agree</td>
<td>Disagree</td>
</tr>
<tr>
<td>1</td>
<td><strong>Care during and after seizure</strong>&lt;br&gt;What is mean by aura?&lt;br&gt;a. It is a warning sign of seizure&lt;br&gt;b. It is sign of giddiness&lt;br&gt;c. It is a sign of stress&lt;br&gt;d. It is a warning sign of fever</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>What is the immediate action you will do during a seizure?&lt;br&gt;a. Help the patient to lie down in a flat surface&lt;br&gt;b. Give something to hold&lt;br&gt;c. Apply too much pressure to stop seizure&lt;br&gt;d. Provide water for drinking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>What will be the breathing pattern of the patient during seizure?&lt;br&gt;a. Irregular breathing&lt;br&gt;b. Normal breathing&lt;br&gt;c. Absence of breathing&lt;br&gt;d. Strainful breathing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S. No</td>
<td>Structured questionnaire</td>
<td>Level of acceptance</td>
<td>Remarks</td>
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<td>-------</td>
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<td>---------------------</td>
<td>---------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agree</td>
<td>Disagree</td>
</tr>
<tr>
<td></td>
<td>Which position is to be provided for the patient?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. a. Supine position  
b. Side lying position  
c. Sitting position  
d. Prone position

5. Which among the following to be avoided during seizure?  
a. Stay near the patient  
b. Restrain the patient  
c. Remove patient’s tight clothing  
d. Remove harmful objects from surroundings

6. What you will do to prevent injury to the patient during seizure?  
a. Remove all dangers from surroundings  
b. Insert something between teeth  
c. Move the patient to a comfortable place  
d. Hold the patient tightly

7. What you will do if the patient lost consciousness during seizure?  
a. Seek medical help  
b. Shake the patient  
c. Pour some water on the face  
d. Wait until consciousness is regained

<table>
<thead>
<tr>
<th>S. No</th>
<th>Structured questionnaire</th>
<th>Level of acceptance</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| 8     | Which is the most significant thing you have to watch during a seizure?  
a. Type of movement  
b. Secretions from mouth  
c. Any injury  
d. Pulse | Agree | Disagree |         |
| 9     | What will happen if you try to move the patient during a seizure? | Agree | Disagree |         |
1. Shoulder fracture
2. Aspiration of secretion
3. Decreased breathing
4. Increased Pulse

10. How can you prevent reoccurrence of a seizure attack?
   a. Regular sleep and medicine
   b. Not scold unnecessarily
   c. Regular bathing and exercise
   d. Meditation

11. What will you observe immediately after a seizure attack?
   a. Assess the appetite
   b. Watch for any injury
   c. Assess whether the patient is oriented
   d. Respiratory rate

<table>
<thead>
<tr>
<th>S.No</th>
<th>Structured questionnaire</th>
<th>Level of acceptance</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>What will you do if you could not turn the patient on to his/her side during seizure?</td>
<td>Agree</td>
<td>Disagree</td>
</tr>
<tr>
<td></td>
<td>a. Do it after seizure ends</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Leave the patient as he/she is</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>c. Apply force to turn</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Seek help from others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>When do you offer a drink after a seizure?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. When the patient is fully awake</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Immediately after seizure</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>c. When the patient is asking</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. 15 minutes after seizure</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>What are the symptoms a patient will have after a seizure?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

xciii
Reduced awareness and confusion
b. Appetite and thirst
c. Sleepy and tired
d. Sweating and pain

When will you take the patient for a Doctor consultation?

a. After one seizure attack
b. Regularly once in a month
c. After 3 a seizure attack
d. When the patient is telling,

Independent Variable: Self Instructional Module regarding promotion of safety measures among patients with seizure and primary care givers

<table>
<thead>
<tr>
<th>Item No</th>
<th>Criteria</th>
<th>Agree</th>
<th>Disagree</th>
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<td>1</td>
<td>Whether it has covers the entire content of prevention and management of seizure?</td>
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<td>2</td>
<td>Whether the language is simple?</td>
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<tr>
<td>3</td>
<td>Whether content is appropriate?</td>
<td></td>
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</tr>
<tr>
<td>4</td>
<td>Whether content is adequate?</td>
<td></td>
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<tr>
<td>5</td>
<td>Whether it is relevant to the topic?</td>
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<tr>
<td>6</td>
<td>Whether arranged in sequence?</td>
<td></td>
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</tr>
<tr>
<td>7</td>
<td>Whether arranged in logical order?</td>
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</table>
ANNEXURE - V
PERCENTAGE OF AGREE / DISAGREE (VALIDATION OF TOOLS AND INDEPENDENT VARIABLES)

Research Tool:

Tool-I: Demographic Variables

Tool-II: Self Administered Questionnaire for knowledge assessment regarding promotion of safety measures among patients with seizures.

Tool-III: Self Administered Questionnaire for knowledge assessment regarding promotion of safety measures among primary care givers of patients with seizure.

**TOOL –I: DEMOGRAPHIC VARIABLE**

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<th>% of Disagree</th>
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<td>a) Male</td>
<td>100</td>
<td>-</td>
<td>Retained</td>
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<tr>
<td></td>
<td>b) Female</td>
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<td>2</td>
<td>Age in years</td>
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<tr>
<td></td>
<td>a) 20 – 30</td>
<td>100</td>
<td>-</td>
<td>Retained</td>
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<td></td>
<td>b) 31 -40</td>
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<td></td>
<td>c) 41 – 50</td>
<td></td>
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<td></td>
<td>d) 51- 60</td>
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<td></td>
<td></td>
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<td></td>
<td>e) &gt;60</td>
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</tr>
<tr>
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<td>---------------------------------------------</td>
<td>------------</td>
<td>---------------</td>
<td>--------------</td>
</tr>
<tr>
<td>3</td>
<td>Duration of illness</td>
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<td>-</td>
<td>Retained</td>
</tr>
<tr>
<td></td>
<td>a) Newly diagnosed</td>
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</tr>
<tr>
<td></td>
<td>b) One year</td>
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<td>c) 2 – 5 years</td>
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<td>b) Brain Surgeries</td>
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<td>d) Fever</td>
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<tr>
<td></td>
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<td></td>
<td>b) Nurse</td>
<td></td>
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<tr>
<td></td>
<td>c) Physiotherapist</td>
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</table>
d) Pharmacist  
e) Any other

### DETAILS OF PRIMARY CARE GIVERS

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<tr>
<td>3</td>
<td>Mother</td>
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<td>3</td>
<td>Spouse</td>
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<td>-</td>
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<td>3</td>
<td>Siblings</td>
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### TOOL–II: Structured interview schedule for knowledge assessment on promotion of safety measures on management of seizure among patients with seizure

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<th>% of Disagree</th>
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<tbody>
<tr>
<td><strong>General Information About Seizure</strong></td>
<td></td>
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</tr>
</tbody>
</table>
| 1 | Which among the following is a cell in nervous system?  
   a. Neurons  
   b. Germ cells  
   c. Epithelial cells | 80 | 20 | Retained |
2. In which form one nerve cell transmit information to another nerve cell?
   a. Chemical transport
   b. Electrical charges
   c. Blood transport
   d. Through muscles

<table>
<thead>
<tr>
<th>Content</th>
<th>% of Agree</th>
<th>% of Disagree</th>
<th>Action taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>d. Stem cells</td>
<td>80</td>
<td>20</td>
<td>Retained</td>
</tr>
</tbody>
</table>

3. What is the meaning of seizure?
   a. Abnormal electrical activity of nerve cell
   b. Decreased blood supply to brain
   c. Jerky movement of the body
   d. Loss of consciousness of the body

<table>
<thead>
<tr>
<th>Content</th>
<th>% of Agree</th>
<th>% of Disagree</th>
<th>Action taken</th>
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<tbody>
<tr>
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<tbody>
<tr>
<td>4</td>
<td>Which of the following can cause seizure?</td>
</tr>
<tr>
<td></td>
<td>a. Lack of interest</td>
</tr>
<tr>
<td></td>
<td>b. Intake of specific foods</td>
</tr>
<tr>
<td></td>
<td>c. Triggering factor</td>
</tr>
<tr>
<td></td>
<td>d. Road Traffic Accident</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>% of Agree</th>
<th>% of Disagree</th>
<th>Action taken</th>
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</thead>
<tbody>
<tr>
<td>d. Stem cells</td>
<td>80</td>
<td>20</td>
</tr>
</tbody>
</table>

| 5    | Which of the following habit can aggravate seizure? |
|      | a. Alcoholism |
|      | b. Smoking |
|      | c. Chewing of Betel leaves |
|      | d. Over intake of drugs |

<table>
<thead>
<tr>
<th>% of Agree</th>
<th>% of Disagree</th>
<th>Action taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>d. Stem cells</td>
<td>100</td>
<td>-</td>
</tr>
</tbody>
</table>

| 6    | Which is the main of seizure cause in adults? |
|      | a. Heart attack |
|      | b. Headache |
|      | c. Head Injury |
|      | d. Stress and Strain |

<table>
<thead>
<tr>
<th>% of Agree</th>
<th>% of Disagree</th>
<th>Action taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>d. Stem cells</td>
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</tbody>
</table>
### SAFETY MEASURES

#### 7. What will you do when you forgot to take a dose of anti-epileptic drug?
- a. Take an extra tablet within 24 hours
- b. Won’t take any medication on that day
- c. Take half tablet immediately
- d. Take one more tablet on next day

<table>
<thead>
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<th>S.No</th>
<th>Content</th>
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<th>% of Disagree</th>
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<tbody>
<tr>
<td>7</td>
<td>What will you do when you forgot to take a dose of anti-epileptic drug?</td>
<td></td>
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<tr>
<td></td>
<td>a. Take an extra tablet within 24 hours</td>
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<td>Retained</td>
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<tr>
<td></td>
<td>b. Won’t take any medication on that day</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Take half tablet immediately</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>d. Take one more tablet on next day</td>
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</table>

#### 8. Which type of drink is more harmful for health while taking anti-epileptic drug treatment?
- a. Fruit juices
- b. Soda lime water
- c. Alcohol
- d. Tender coconut water

<table>
<thead>
<tr>
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<td>8</td>
<td>Which type of drink is more harmful for health while taking anti-epileptic drug treatment?</td>
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<tr>
<td></td>
<td>a. Fruit juices</td>
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<td>Retained</td>
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<tr>
<td></td>
<td>b. Soda lime water</td>
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<td></td>
<td>c. Alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Tender coconut water</td>
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#### 9. Which type of jobs should be avoided?
- a. Defence services and fire services
- b. Teaching and office work
- c. Nursing and business works
- d. Social works

<table>
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<td>9</td>
<td>Which type of jobs should be avoided?</td>
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<td>a. Defence services and fire services</td>
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<td></td>
<td>b. Teaching and office work</td>
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<tr>
<td></td>
<td>c. Nursing and business works</td>
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</tr>
<tr>
<td></td>
<td>d. Social works</td>
<td></td>
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#### 10. Which of the following is the right answer?
- a. Seizure patients should not drink alcohol
- b. Seizure patient can continue drinking alcohol
- c. Seizure patients can drink alcohol occasionally
- d. Seizure patients should not drink alcohol during seizure.

<table>
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<td>b. Seizure patient can continue drinking alcohol</td>
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<td>c. Seizure patients can drink alcohol occasionally</td>
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<td></td>
<td>d. Seizure patients should not drink alcohol during seizure.</td>
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#### 11. Which is the important management of seizure?
- a. Take anti-epileptic drugs regularly
- b. Drink plenty of water
- c. Eat adequate food
- d. Take adequate rest and sleep

<table>
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<td>Retained</td>
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<tr>
<td></td>
<td>b. Drink plenty of water</td>
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<td></td>
<td>c. Eat adequate food</td>
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<td></td>
<td>d. Take adequate rest and sleep</td>
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<td>What is your opinion about marriage?</td>
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<tr>
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<td>a. Can marry</td>
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<td>b. Not to get marry</td>
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<tr>
<td></td>
<td>c. No one will be marry</td>
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<td>d. I am not eligible</td>
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<td>Why relaxation techniques are important?</td>
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<td>a. To reduce stress</td>
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<td>b. To reduce heart burn</td>
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<tr>
<td></td>
<td>c. To promote circulation</td>
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<td></td>
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<tr>
<td></td>
<td>d. To promote messages to brain</td>
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<td>14</td>
<td>Of the following which type of recreational activities should be avoid?</td>
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<tr>
<td></td>
<td>a. Swimming</td>
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<td></td>
<td>b. Hearing music</td>
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<tr>
<td></td>
<td>c. Reading books</td>
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<td></td>
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<tr>
<td></td>
<td>d. Walking</td>
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<td>When you will go for a follow – up?</td>
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<td>a. Regularly Once in a month</td>
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<td>b. After one seizure attack</td>
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<td></td>
<td>c. After 3 or more seizure attack</td>
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<td></td>
<td>d. Immediately after seizure</td>
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TOOL-III: Structured interview schedule for knowledge assessment on promotion of safety measures on management of seizure among primary care givers.
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<th>Disagree</th>
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<tr>
<td>1</td>
<td><strong>Care during and after seizure</strong></td>
<td></td>
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<tr>
<td></td>
<td>What is mean by aura?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) It is a warning sign of seizure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) It is sign of giddiness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) It is a sign of stress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) It is a warning sign of fever</td>
<td>100</td>
<td>-</td>
<td>Retained</td>
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<tr>
<td>2</td>
<td>What is the immediate action you will do during a seizure?</td>
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</tr>
<tr>
<td></td>
<td>a) Help the patient to lie down in a flat surface</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>b) Give something to hold</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>c) Apply too much pressure to stop seizure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) Provide water for drinking</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>100</td>
<td>-</td>
<td>Retained</td>
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<tr>
<td>3</td>
<td>What will be the breathing pattern of the patient during seizure?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>a) Irregular breathing</td>
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<td></td>
<td>b) Normal breathing</td>
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</tr>
<tr>
<td></td>
<td>a) Absence of breathing</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Strainful breathing</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>100</td>
<td>-</td>
<td>Retained</td>
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<tr>
<td>4</td>
<td>Which position is to be provided for the patient?</td>
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</tr>
<tr>
<td></td>
<td>a) Supine position</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Side lying position</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) Sitting position</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) Prone position</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>100</td>
<td>-</td>
<td>Retained</td>
</tr>
<tr>
<td>5</td>
<td>Which among the following to be avoided during seizure?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Stay near the patient</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>100</td>
<td>-</td>
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<th>% of Disagree</th>
<th>Action taken Modified/ Deleted / Retained</th>
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<tbody>
<tr>
<td>6</td>
<td>b) Restrain the patient</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>c) Remove patient’s tight clothing</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) Remove harmful objects from surroundings</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>What you will do to prevent injury to the patient during seizure?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Remove all dangers from surroundings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Insert something between teeth</td>
<td></td>
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<td></td>
<td>c) Move the patient to a comfortable place</td>
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<td></td>
<td>d) Hold the patient tightly</td>
<td>80</td>
<td>20</td>
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</tr>
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<td>7</td>
<td>What you will do if the patient lost consciousness during seizure?</td>
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<tr>
<td></td>
<td>a) Seek medical help</td>
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<td></td>
<td>b) Shake the patient</td>
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<td></td>
<td>c) Pour some water on the face</td>
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<td></td>
<td>d) Wait until consciousness is regained</td>
<td>100</td>
<td>-</td>
<td>Retained</td>
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<td>8</td>
<td>Which is the most significant thing you have to watch during a seizure?</td>
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<tr>
<td></td>
<td>a) Type of movement</td>
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<tr>
<td></td>
<td>b) Secretions from mouth</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>c) Any injury</td>
<td></td>
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<td></td>
<td>d) Pulse</td>
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<tr>
<td></td>
<td>a) Type of movement</td>
<td>100</td>
<td>-</td>
<td>Retained</td>
</tr>
<tr>
<td>9</td>
<td>What will happen if you try to move the patient during a seizure?</td>
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<tr>
<td></td>
<td>a) Shoulder fracture</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>b) Aspiration of secretion</td>
<td></td>
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<td></td>
<td>c) Decreased breathing</td>
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<td>d) Increased Pulse</td>
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<td>-</td>
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<td>How can you prevent reoccurrence of a seizure attack?</td>
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<tr>
<td></td>
<td>a) Regular sleep and medicine</td>
<td>100</td>
<td>-</td>
<td>Retained</td>
</tr>
</tbody>
</table>

cii
| b) Not scold unnecessarily  
| c) Regular bathing and exercise  
| d) Meditation  |
|---|---|---|
| 11 | What will you observe immediately after a seizure attack?  
| a) Assess the appetite  
| b) Watch for any injury  
| c) Assess whether the patient is oriented  
| d) Respiratory rate  |
| 100 | - | Retained |

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<th>Content</th>
<th>% of Agree</th>
<th>% of Disagree</th>
<th>Action taken Modified/ Deleted / Retained</th>
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| 12 | What will you do if you could not turn the patient on to his/her side during seizure?  
| a) Do it after seizure ends  
| b) Leave the patient as he/she is  
| c) Apply force to turn  
| d) Seek help from others  |
| 100 | - | Retained |
| 13 | When do you offer a drink after a seizure?  
| a) When the patient is fully awake  
| b) Immediately after seizure  
| c) When the patient is asking  
| d) 15 minutes after seizure  |
| 100 | - | Retained |
| 14 | What are the symptoms a patient will have after a seizure?  
| a) Reduced awareness and confusion  
| b) Appetite and thirst  
| c) Sleepy and tired  
| d) Sweating and pain  |
| 100 | - | Retained |
| 15 | When will you take the patient for a Doctor consultation?  
| a) After one seizure attack  |
| 100 | - | Retained |
Independent Variable: Self Instructional Module regarding promotion of safety measures among patients with seizure and primary care givers

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<th>Criteria</th>
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<th>% of Disagree</th>
<th>Action taken Modified/ Deleted / Retained</th>
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<td>Whether the language is simple?</td>
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<td>3</td>
<td>Whether content is appropriate?</td>
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<td>Whether content is adequate?</td>
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<td>5</td>
<td>Whether it is relevant to the topic?</td>
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<td>6</td>
<td>Whether arranged in sequence?</td>
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<td>Retained</td>
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<td>Whether arranged in logical order?</td>
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<td>Retained</td>
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</tbody>
</table>
ANNEXURE - VI

CONTENT VALIDITY CERTIFICATE

I hereby certify that I have validated the tool of Mrs. Anuja Justin, M.Sc.,(N), II-Year student who is undertaking the study on “The study to evaluate the effectiveness of Self Instructional Module (SIM) on knowledge regarding promotion of safety measures among patients with seizure and primary care givers in selected Hospitals at Salem.”

Date: __________________________
Place: __________________________
Signature of expert
Name: __________________________
Designation: _____________________

ANNEXURE - VII

SELF ADMINISTERED QUESTIONNAIRE REGARDING PROMOTION OF SAFETY MEASURES AMONG PATIENTS WITH SEIZURE

TOOL –I: DEMOGRAPHIC VARIABLES

Sample No: ___________ Date: ___________
**Instructions:**
I request you to read the given questionnaire with the most appropriate responses. Kindly do not leave any questions unattended. The information provided by you will be kept confidential and used only for the study purpose. You are requested to read each questions carefully and give correct responses by placing tick mark against the box provided.

**DETAILED OF THE PATIENT.**

1. Gender
   a) Male ( )
   b) Female ( )

2. Age in years
   a) 20 – 30 ( )
   b) 31 – 40 ( )
   c) 41 – 50 ( )
   d) 51 – 60 ( )
   e) >60 ( )

3. Duration of illness
   a) Newly diagnosed ( )
   b) One year ( )
   c) 2 – 5 years ( )
   d) > 5 years ( )

4. Educational status
   a) Primary school ( )
   b) Higher secondary ( )
   d) Under graduate ( )
   e) Post graduate ( )

5. Pre-disposing factor
   a) Head Injury ( )
   b) Brain Surgeries ( )
   c) Hereditary ( )
   d) Fever ( )

6. Family member in health profession
   a) Doctor ( )
TOOL– II
SELF ADMINISTERED QUESTIONNAIRE FOR PATIENTS WITH SEIZURE

Instructions:
Dear participants,

You are requested to read each question carefully. There are 4 options given, out of which one is correct. Give your correct response by placing tick mark.

GENERAL INFORMATION ABOUT SEIZURE

1) Which among the following is a cell in nervous system?
   a) Neurons ( )
   b) Germ cells ( )
   c) Epithelial cell ( )
   d) Stem cells ( )

2) Which among the following is a cell in nervous system?
   a) Neurons ( )
   b) Germ cells ( )
   c) Epithelial cell ( )
   d) Stem cells ( )

3) Which among the following is a cell in nervous system?
   a) Neurons ( )
   b) Germ cells ( )
   c) Epithelial cell ( )
   d) Stem cells ( )

4) Which among the following is a cell in nervous system?
   a) Neurons ( )
   b) Germ cells ( )
   c) Epithelial cell ( )
   d) Stem cells ( )

5) Which among the following is a cell in nervous system?
   a) Neurons ( )
   b) Germ cells ( )
   c) Epithelial cell ( )
   d) Stem cells ( )

6) Which among the following is a cell in nervous system?
   a) Neurons ( )
   b) Germ cells ( )
   c) Epithelial cell ( )
   d) Stem cells ( )

7) Which among the following is a cell in nervous system?
   a) Neurons ( )
   b) Germ cells ( )
   c) Epithelial cell ( )
   d) Stem cells ( )

8) Which among the following is a cell in nervous system?
   a) Neurons ( )
   b) Germ cells ( )
   c) Epithelial cell ( )
   d) Stem cells ( )

9) Which among the following is a cell in nervous system?
   a) Neurons ( )
   b) Germ cells ( )
   c) Epithelial cell ( )
   d) Stem cells ( )

10) Which among the following is a cell in nervous system?
    a) Neurons ( )
    b) Germ cells ( )
    c) Epithelial cell ( )
    d) Stem cells ( )

11) Which among the following is a cell in nervous system?
    a) Neurons ( )
    b) Germ cells ( )
    c) Epithelial cell ( )
    d) Stem cells ( )

12) Which among the following is a cell in nervous system?
    a) Neurons ( )
    b) Germ cells ( )
    c) Epithelial cell ( )
    d) Stem cells ( )

13) Which among the following is a cell in nervous system?
    a) Neurons ( )
    b) Germ cells ( )
    c) Epithelial cell ( )
    d) Stem cells ( )

14) Which among the following is a cell in nervous system?
    a) Neurons ( )
    b) Germ cells ( )
    c) Epithelial cell ( )
    d) Stem cells ( )

15) Which among the following is a cell in nervous system?
    a) Neurons ( )
    b) Germ cells ( )
    c) Epithelial cell ( )
    d) Stem cells ( )

16) Which among the following is a cell in nervous system?
    a) Neurons ( )
    b) Germ cells ( )
    c) Epithelial cell ( )
    d) Stem cells ( )

17) Which among the following is a cell in nervous system?
    a) Neurons ( )
    b) Germ cells ( )
    c) Epithelial cell ( )
    d) Stem cells ( )

18) Which among the following is a cell in nervous system?
    a) Neurons ( )
    b) Germ cells ( )
    c) Epithelial cell ( )
    d) Stem cells ( )

19) Which among the following is a cell in nervous system?
    a) Neurons ( )
    b) Germ cells ( )
    c) Epithelial cell ( )
    d) Stem cells ( )

20) Which among the following is a cell in nervous system?
    a) Neurons ( )
    b) Germ cells ( )
    c) Epithelial cell ( )
    d) Stem cells ( )
2) In which form one nerve cell transmit information to another nerve cell?
   a) Chemical transport (   )
   b) Electrical charges (   )
   c) Blood transport (   )
   d) Through muscles (   )

3) What is the meaning of seizure?
   a) Abnormal electrical activity of nerve cell. (   )
   b) Decreased blood supply to brain. (   )
   c) Jerky movement of the body. (   )
   d) Loss of consciousness of the body (   )

4) Which of the following can cause seizure?
   a) Lack of interest (   )
   b) Intake of specific foods (   )
   c) Triggering factor. (   )
   d) Road traffic accidents (   )

5) Which of the following habit can aggravate seizure?
   a) Alcoholism (   )
   b) Smoking (   )
   c) Chewing Betel leaves (   )
   d) Over intake of drugs (   )

6) Which is the main cause of seizure in adults?
   a) Heart attack (   )
   b) Headache (   )
   c) Head injury (   )
   d) Stress and strain (   )

SAFETY MEASURES
7). What will you do when you forgot to take a dose of anti-epileptic drug?
   a) Take an extra tablet within 24 hours. (   )
   b) Won’t take any medication on that day (   )
   c) Take half tablet immediately (   )
   d) Take one more tablet on next day (   )

8) Which type of drink is more harmful for health while taking anti-epileptic drug treatment?
   a) Fruit juices (   )
   b) Soda Lime water (   )
   c) Alcohol (   )
   d) Tender coconut water (   )

9) Which type of jobs should be avoided?
   a) Defence services and Fire services (   )
   b) Teaching and office works (   )
   c) Nursing and Business works (   )
   d) Social works (   )

10) Which of the following is the right answer?
    a) Seizure patients should not drink alcohol (   )
    b) Seizure patients can continue drinking alcohol (   )
    c) Seizure patients can drink alcohol occasionally (   )
    d) Seizure patients should not drink alcohol during seizure (   )

11) Which is the important management of seizure?
    a) Take anti-epileptic drugs regularly (   )
    b) Drink plenty of water (   )
    c) Eat adequate food (   )
    d) Take adequate rest and sleep (   )

12) What is your opinion about marriage?
    a) Can marry (   )
    b) Not to get marry (   )
c) No one will be ready ( )
d) I am not eligible ( )

13) Why relaxation techniques are important?
   a) To reduce stress ( )
   b) To reduce heartburn ( )
   c) To promote circulation ( )
   d) To promote messages to brain ( )

14) Of the following which type of recreational activities should be avoid?
   a) Swimming ( )
   b) Hearing music ( )
   c) Reading books ( )
   d) Walking ( )

15) When you will go for a follow-up?
   a) Regularly once in a month ( )
   b) After one seizure attack ( )
   c) After 3 or more seizure attack ( )
   d) Immediately after seizure ( )
ANSWER KEY:

1. a
2. a
3. a
4. c
5. a
6. c
7. a
8. c
9. a
10. a
11. a
12. a
13. a
14. a
15. a

TOOL– III
SELF ADMINISTERED QUESTIONNAIRE FOR PRIMARY CARE GIVERS OF PATIENTS WITH SEIZURE

Instructions
Dear participants,

You are requested to read each question carefully. There are 4 options given, out of which one is correct. Give your correct response by placing tick mark.

CARE DURING AND AFTER SEIZURE

1) What is mean by aura?
   a) It is a warning sign of seizure (    )
   b) It is sign of giddiness (    )
   c) It is a sign of stress (    )
   d) It is a warning sign of high fever (    )

2) What is the immediate action you will do during a seizure?
   a) Help the patient to lie down in a flat surface (    )
   b) Give something to hold (    )
   c) Apply too much pressure to stop seizure (    )
   d) Provide water for drinking (    )

3) What will be the breathing pattern of the patient during seizure?
   a) Irregular breathing (    )
   b) Normal breathing (    )
   c) Absence of breathing (    )
   d) Strainful breathing (    )

4) Which position is to be provided for the patient?
   a) Supine position (    )
   b) Side lying position (    )
   c) Sitting position (    )
   d) Prone position (    )

5) Which among the following to be avoided during seizure?
   a) Stay near the patient (    )
   b) Restrain the patient (    )
6) What you will do to prevent injury to the patient during seizure?
   a) Remove all dangers from surroundings ( )
   b) Insert something between teeth ( )
   c) Move the patient to a comfortable place ( )
   d) Hold the patient tightly ( )

7) What you will do if the patient lost consciousness during seizure?
   a) Seek medical help ( )
   b) Shake the patient ( )
   c) Pour some water on the face ( )
   d) Wait until consciousness is regained ( )

8) Which is the most significant thing you have to watch during a seizure?
   a) Type of movement ( )
   b) Secretions from mouth ( )
   c) Any injury ( )
   d) Pulse ( )

9) What will happen if you try to move the patient during a seizure?
   a) Shoulder fracture ( )
   b) Aspiration of secretion ( )
   c) Decreased breathing ( )
   d) Increased pulse ( )

10) How can you prevent reoccurrence of a seizure attack?
    a) Regular sleep and medicine ( )
    b) Not scold unnecessarily ( )
    c) Regular bathing and Exercise ( )
11) What will you observe immediately after a seizure attack?
   a) Assess the appetite ( )
   b) Watch for any injury ( )
   c) Assess whether the patient is oriented ( )
   d) Respiratory rate ( )

12) What will you do if you could not turn the patient on to his/her side during seizure?
   a) Do it after seizure ends ( )
   b) Leave the patient as he/she is ( )
   c) Apply force to turn ( )
   d) Seek help from others ( )

13) When do you offer a drink after a seizure?
   a) When the patient is fully awake and alert ( )
   b) Immediately after seizure ( )
   c) When the patient is asking ( )
   d) 15 minutes after seizure ( )

14) What are the symptoms a patient will have after a seizure?
   a) Reduced awareness and confusion ( )
   b) Appetite and thirst ( )
   c) Sleepy and tired ( )
   d) Sweating and pain ( )

15) When will you take the patient for a Doctor consultation?
   a) After one seizure attack ( )
   b) Regularly once in a month ( )
   c) After 3 seizure attack ( )
   d) When patient is telling ( )
ANSWER KEY

1) a
2) a
3) a
4) a
5) d
6) a
7) a
8) a
9) a
10) a
11) c
12) a
13)  a
14)  a
15)  b