Stress, anxiety, and depression among individuals with epilepsy

Abstract

Background: Epilepsy is a disorder characterised by recurrent seizures of cerebral origin, presenting with episodes of sensory, motor, or autonomic phenomenon with or without loss of consciousness. Patients with epilepsy commonly have coexisting psychiatric conditions including mood disorders, anxiety disorders, psychotic disorders, and attention deficit hyperactivity disorder. Aim: To assess and compare stress, anxiety, and depression among male and female with epilepsy. Methods: The sample consisted of 100 individuals with epilepsy (50 males and 50 females) selected from the Ranchi Institute of Neuro-Psychiatry & Allied Sciences (RINPAS) outpatient department (OPD) by using purposive sampling method. Socio-demographic and clinical details of the entire individuals were assessed through socio-demographic datasheet, clinical datasheet, and the Depression Anxiety Stress Scales (DASS). Result: Finding of this study showed that stress, anxiety, and depression was higher among female with epilepsy in comparison to male with epilepsy. Key words: Seizures. Psychiatric Disorders. Psychiatric Social Work.

Introduction

Epilepsy is the second most common chronic neurological condition. When nerve cells in the brain fire electrical impulses at a rate of up to four times higher than normal, this causes a sort of electrical storm in the brain, known as a seizure. A pattern of repeated seizures is referred to as epilepsy. Fears, stress, and anxieties are common in virtually everyone's life. But for those who have epilepsy, fears and anxieties are usually much deeper than those of the average person, and day after day gradually depression grows up in those who have epilepsy. Often, the emotional effects that epilepsy has on patients go unknown as those with epilepsy grow up with psychosocial difficulties that usually last for years. The fear of death along with the anxiety of going into a seizure often leads to significant emotional struggles. A person with epilepsy is prone to carry fear throughout his life. This form of fear deals with the fear of having a seizure in front of strangers or acquaintances that might not be aware of their epilepsy.

Fiordelli et al.[1] conducted a study and found out that epilepsy was strongly associated with anxiety and depression. Caplan et al.[2] found anxiety and depression in patients with epilepsy. Baker[3] found out that epilepsy was a disorder associated with psychological consequences, with increased levels of anxiety, depression, and poor self-esteem compared with people without this condition. Similar findings were seen by Gilliam and Kanner[4] that depression was highly prevalent in epileptic population and was the most frequent co-morbid psychiatric disorder in patients with epilepsy. Epilepsy is a worldwide public health problem and a serious concern for mental health professionals. A number of systematic studies of persons suffering from epilepsy have observed that there is often a significant co-occurrence of anxiety in epileptic people. The occurrence of stress, anxiety, and depression in epileptic people has often been associated with worse outcome, impaired functioning, personal suffering, higher rates of repeated seizures, and even suicide.

Aim: To assess and compare stress, anxiety, and depression among male and female with epilepsy.

Materials and methods

The research study was a hospital-based cross-sectional comparative study among the male and female individuals with epilepsy. The sample was drawn from the outpatient department (OPD) of the Ranchi Institute of Neuro-Psychiatry and Allied Sciences (RINPAS), Kanke, Ranchi, Jharkhand through purposive sampling technique. Total 100 respondents were selected for this study which was further divided into 50 males and 50 females.

Objectives: To assess and compare the socio-demographic profile among male and female with epilepsy, to assess and compare the stress among male and female with epilepsy, to assess and compare the anxiety among male and female with epilepsy, and to assess and compare the depression among male and female with epilepsy.
**Inclusion criteria:** Patients diagnosed with epilepsy as per the International League Against Epilepsy,[5] both sexes (male and female), age more than 18 years and less than 45 years, and those who gave written informed consent for the participation in study.

**Exclusion criteria:** History of any chronic physical illnesses, mental illness, organic brain syndromes, and substance abuse/dependence; coincident significant psychiatric illness, and mental retardation.

**Tools used**

**Socio-demographic datasheet:** The socio-demographic datasheet was semi-structured and developed for the present study, and consisted of variables like age, sex, age of onset, religion, marital status, occupation, family type, family income, and domicile.

**Depression Anxiety Stress Scales (DASS):** It was developed by Lovibond and Lovibond.[6] The DASS is a 42-item questionnaire which includes three self-report scales designed to measure the negative emotional states of depression, anxiety, and stress. Each of the three scales contains 14 items, divided into subscales of two to five items with similar content. Respondents are asked to use four-point severity/frequency scales to rate the extent to which they have experienced each state over the past week. It shows that high score is indicative of high level of depression, anxiety, and stress.

The Hindi version of the DASS[7] was used by Purushottam et al.[8]

**Result**

Table 1 reveals that mean age and standard deviation (SD) of male with epilepsy were 28.68±5.64 years. The mean and SD of female with epilepsy were 27.68±5.32 years. The table also shows that mean age of onset and SD of male with epilepsy were 21.70±4.97 years. The mean age of onset and SD of female with epilepsy were 21.58±4.16 years.

Table 2 reveals that there was no significant difference in religion, family type, family income, and domicile between both groups. Twenty three (46%) male and 24 (48%) female patients with epilepsy were married, 27 (54%) male and 26 (52%) female patients with epilepsy were unmarried; the value of \( \chi^2=0.040 \) and \( p\leq0.05 \), so there was significant difference in marital status between both groups. Forty two (84%) male patients with epilepsy and 20 (40%) female patients with epilepsy fall within employed group while eight (16%) male and 30 (60%) female patients with epilepsy fall within unemployed group; the value of \( \chi^2=20.543 \) and \( p\leq0.01 \), so there was most significant difference in occupation between both groups.

Table 3 shows mean score and SD of stress, anxiety, and depression among male and female with epilepsy. The mean and SD score of stress in male with epilepsy was 12.34±1.45 and female with epilepsy was 14.62±2.16. Result reveals that there was significant difference in stress among male and female with epilepsy (\( t=6.184, p\leq0.05 \)). Finding of this study showed that stress was more in female with epilepsy in comparison to male with epilepsy. The mean and SD score of anxiety in male with epilepsy was 9.72±1.79 and female with epilepsy was 16.10±2.16. It also shows that there was significant difference in anxiety among males and females with epilepsy (\( t=17.421, p\leq0.05 \)). Findings of this study showed that anxiety was high in female with epilepsy in comparison to male with epilepsy. The mean and SD score of depression in male with epilepsy was 13.88±1.64 and female with epilepsy was 16.96±2.25. It shows that there was significant difference in depression...
among male and female with epilepsy (t=7.689, p<0.05). Finding of this study showed that depression was higher in female with epilepsy in comparison to male with epilepsy.

**Discussion**

Findings of this study show that depression, anxiety, and stress were higher in female respondents in comparison to male respondents. Some earlier studies also support this. Caplan et al.[2] found that female with epilepsy had more depression in comparison to males. Turky et al.[9] found out in their study that female with epilepsy were more likely to have depression than males. Nuhu et al.[10] found that depression and anxiety were more common in female with epilepsy in comparison to male with epilepsy. Kimiskidis et al.[11] conducted a study and found that depression and anxiety in epilepsy were more common in female patient compared to male patient, and this study also found higher depression and anxiety in female with epilepsy compared to male. Rigdon and Epting[12] found that females reported a significantly higher level of death anxiety and thus represents a serious issue. It is consistent with the Middle Eastern culture where females are more vulnerable to threats of illness and often feel more insecure due to the responsibility inherent in caring for family and children. Servaty et al.[13] reported higher levels of empathy scores for females that were associated with higher levels of anxiety. Otoom et al.[14] found that the mean death anxiety score of the patients was moderate and indicated that only death anxiety showed a gender difference with female patients reporting higher levels of death anxiety in comparison to males.

Kumar et al.[15] studied subjective well-being and coping by evaluating patients with diagnosis of schizophrenia and epilepsy. Caregivers of persons with schizophrenia and those suffering from epilepsy were assessed for burden and social support by Karim et al.[16]

**Implications**

- The scope for intervention by mental health professionals, especially psychiatric social workers in planning and delivering adequate therapeutic services in the clinical context
- Individual therapy (cognitive behavioural, and supportive), supportive intervention and relaxation techniques are helpful for person with epilepsy
- Family intervention, especially primary caregivers to provide knowledge of stress, anxiety, and depression for management technique which is helpful for person with epilepsy

**Limitations**

- Being a time bound study and sample size was small
- The samples were selected by using purposive sampling technique
- Data was collected from only RINPAS, Ranchi.

**Conclusion**

This study is based on cross-sectional research design to assess and compare depression, anxiety, and stress among male and female with epilepsy. Findings of this study indicate that depression, anxiety, and stress were higher in female with epilepsy in comparison to male with epilepsy. Epilepsy is a stigmatising condition, because people with epilepsy may not be adapted to the social norms due to unexpected seizures. Consequently, the society is afraid of interacting with a person who has epileptic seizures. The findings of the study have to be taken in the light of certain limitations. The sample was purposively selected and size was small. There is a need for further large scale studies in order to substantiate the findings. Such findings would have thrown more light in terms of predictors for knowledge and attitude.

**References**