ORIGINAL ARTICLE

Evaluation of Family functioning among parents of epileptic patients

RUKHSANA KOUSAR^{1*}, HAJRA SARWAR², KOUSAR PERVEEN³, SADIA KHAN⁴

¹MS Scholar, Lahore School of Nursing, Faculty of Allied Health Sciences, The University of Lahore

^{2,3}Assistant Professor, Lahore School of Nursing, Faculty of Allied Health Sciences, The University of Lahore

⁴Senior Lecturer, Department of Physical Therapy, Faculty of Allied Health Sciences, The University of Lahore

Correspondence to: Rukhsana Kousar*, Email: rukhsanakusar9909@gmail.com

ABSTRACT

Epilepsy has aggregate of risk characteristic's as, age of onset, triggering factors, genetics, natural history, prognosis, and it is not a condition based on single aspect or cause. Due to social problems, family functioning of epileptic patients suffers badly. The basic purpose of the study is to investigate the role of family functioning of the parents who has epileptic patients.

Methods: Across-sectional study was conducted at Muzaffargarh Hospital Neurology OPD department. Total 36 parents were enrolled. All parents of children, who have 8 to18 years of age, which are diagnosis of epilepsy, were included in current study Data was collected on a predesign questionnaire and for family functioning the Family Assessment Device (FAD) was used. Statistical analysis was performed by using the Statistical Package for Social Sciences (spss) version 26. The frequencies, proportions were calculated for Qualitative variables and Mean + SD were calculated for quantitative variables.

Results: The mean age of parents was 38.58+7.55 and children were 12.31+3.34. Out of 36 participants 12(33.3%) were males whereas 24(66.7%) were females. Majority of parents were holding secondary degree 13(36.1%), were unemployed 24(66.7%), 21(58.3%) were from rural area and dealing with generalized seizure type children 24(66.7%). The average seizures frequency per month was 2.64+1.15. The families of epileptic patients were more dysfunctional, especially in terms of problem solving (2.66+0.43), behavior control (2.68+0.49), affective involvement (2.62+0.64) and also family's faces difficulties in finding their role (2.48+0.56).

Conclusion: The families of epileptic patients have more dysfunctional, especially in terms of problem solving, behavior control, affective involvement and also families faces difficulties in finding their role. Therefore educational programme focusing on the importance of family functioning should be provided so that the aspect of treatments and social life of patients get improved.

Keywords: Epilepsy, Family functioning, Social Support, Family support

INTRODUCTION

Epilepsy has a aggregate of risk characteristic's as, age of onset, triggering factors, genetics, natural history, prognosis, and it is not a condition based on single aspect or cause. Epilepsy is chief neurological illnesses among the children that affect approximately 50,000,000 individuals around the globe. Epilapsy is becoming a worldwide problem. In Asia the burden of epilepsy was 17.0% higher than Africa which includes neuropsychiatric conditions. The estimated prevalence of epilepsy in Pakistan is 9.99 per 1000 people. In adults highest prevalence was observed. Epileptic patients are increasing because of their poor socioeconomic condition and poor management in the health care setting. There is only 1 neurologist available for 14 lac population.

Epileptic patients have to face different challenges which include physiological issue (i.e anxiety, depression, low self-esteem) and social complication as well. Researches have shown cultural sensitivity issues among epileptic patients due to the longitudinal disease. In different countries diagnosis, proper healthcare facilities, associated morbidity and negative social impact are significant predictors of poor quality of life among patients with epilepsy. 6.7

Social Support plays a vital role in improving the quality of life patients. Social support refers as the perception that a person who is sick is a member of a network in which he/she can receive support, help, respect and affection. Social support can be received from any person that is your family member, colleagues, friends or health care profressional.8 A study revealed that social support from a family member has a positive impact on the quality of life of patients. Family adaptability was significantly associated with support perceived by patients as well as emotional support perceived by spouses. Social support receiving from a member of family have positive impact on mental health and support from instruments and outside of family shows negative impact on marital life 9 It was also observed that when epileptic patients have interaction with society it has negative impact on lives. 10 Parents can play a key role for epileptic children. The information gathered from the parents helpful for diagnoses, treatment, and care of the epileptic patients and it is also helpful for evaluation.11

Due to social problems, family functioning of epileptic patients suffers badly. Parents of epileptic patients cannot

participate in active decision making, role and relationship, effective communication, due to lake of knowledge. The basic purpose of the study is to investigate the role of family functioning of the parents who has epileptic patients.

METHODOLOGY

After taking informed consent from the parents of epileptic patients a cross-sectional study was conducted at Muzaffargarh Hospital Neurology OPD department. Total 36 parents were enrolled during 2 months. All parents of children, who have 8 to 18 years of age, which are diagnosis of epilepsy were included in current study All those parents of the children without seizures in the last year were excluded from study. Data was collected on a predesign questionnaire which includes Socio demographic characteristics for parents with epileptic patients including age, gender, marital status and qualification, type and frequency of seizure. For family functioning the Family Assessment Device (FAD) developed by Epstin et al was used. 12 It has seven domains consisted of Communication, Problem solving, Affective responsiveness, Affective Involvement, Behavior Control General Functioning and Role. All the items are rated from 'strongly agree' to 'strongly disagree' based on how the participant's family reacts most of the time. Scores on the 12 items are summed to produce a total ranging from 4 to 48. Lower scores indicate healthy functioning in terms of communication and problem solving, and higher scores reflect unhealthy family functioning. Statistical analysis was performed by using the Statistical Package for Social Sciences (SPSS) version 26. The frequencies, proportions were calculated for Qualitative variables and Mean + SD were calculated for quantitative variables.

RESULTS

Table 1 depicts the mean age of parents as 38.58+7.55 and of children as 12.31+3.34. Out of 36 participants 12(33.3%) were males whereas 24(66.7%) were females. There were 9(25.0%) participants having primary level of education, 13(36.1%) were holding secondary degree, 10(27.8%) were bachelors and 4(11.1%) were masters. Majority of the participants were unemployed i.e 24(66.7%) and only 12(33.3%) were employed. With regard to residential area 21(58.3%) were from urban area

and 15(41.7%) were from rural area. Majority of the participants dealing with generalized seizure type children i.e 24(66.7%) and only 12(33.3%) were dealing with children having focal type seizures. The average seizures frequency per month was 2.64+1.15.

Table 1: Demographic characteristics of parents

Variables	Frequency	Percentage		
Age	38.58+7.55			
Age of Child	12.31+3.34			
Gender				
Male	12	33.3		
Female	24 66.7			
Education				
Primary	9	25.0		
Secondary	13	36.1		
Bachelor	10	27.8		
Masters	4	11.1		
Employment Status				
Employed	12	33.3		
Unemployed	24	66.7		
Residential Area				
Rural	21	58.3		
Urban	15	41.7		
Type of care Givers				
Mother	20	55.5%		
Father	09	25%		
Siblings/Relatives	07	19.4%		
Seizure Type				
Generalized	24	66.7		
Focal	12	33.3		
Seizures frequency per month	2.64+1.15			

Table 2: Family Functioning Scores (FAD) for participants

Domains	FAD Scores	FAD LEVELS		
	Mean+sd	Healthy n(%)	Unhealthy n(%)	
Problem Solving (Cutoff=2.20)	2.66+0.43	4(11.1)	32(88.9)	
Communication (Cutoff=2.20)	2.38+0.22	9(25.0)	27(75.0)	
Roles (cutoff=2.30)	2.48+0.56	14(38.9)	22(61.1)	
Affective Responsiveness (cutoff=2.20)	2.46+0.61	15(41.7)	21(58.3)	
Affective Involvement (cutoff=2.10)	2.62+0.64	10(27.8)	26(72.2)	
Behavior Control (cutoff=1.90)	2.68+0.49	5(13.9)	31(86.1)	
General Functioning (cutoff=2.00)	2.32+0.59	13(36.1)	23(63.9)	

Table 2 illustrates the family functioning scores and levels of participants dealing with epileptic children. There were total seven domains of McMaster Family Assessment Device (FAD). The first domain was regarding problem solving; the mean score was 2.66+0.43, where only 4(11.1%) were having healthy family functioning and 32(88.9%) were having unhealthy family functioning. With regard to communication domain the mean score was 2.38+0.22; 9(25.0%) were having healthy family functioning and 27(75.0%) were having unhealthy family functioning. According to roles dimension the mean score was 2.48+0.56 with a cutoff of 2.30; the participants with healthy family functioning

were 14(38.9%) and participants with unhealthy family functioning were 22(61.1%). Concerning affective responsiveness the mean score was 2.46+0.61 with a cutoff of 2.20; 15(41.7%) participants having healthy family functioning and 21(58.3%) were having unhealthy family functioning. Regarding affective involvement the mean score was 2.62+0.64; where 10(27.8%) participants were having healthy family functioning and 26(72.2%) were having unhealthy family functioning. As far as behavior control is concerned the mean score of family functioning was 2.62+0.64; participants with healthy family functioning were 5(13.9%) and with unhealthy family functioning were 31(86.1%). The last dimension of FAD is general functioning with a mean score of 2.32+0.59; the healthy participants were 13(36.1%) and unhealthy participants were 23(63.9%).

DISCUSSION

Epileptic patients have to face different challenges which include physiological issue. Social Support plays a vital role in improving the quality of life patients. Social support from a family member has a positive impact on the quality of life of patients. Family functioning plays a vital role in the patient's quality of life.

In current study the mean age of parents was 38.58+7.55 and children were 12.31+3.34. Out of 36 participants 12(33.3%) were males whereas 24(66.7%) were females. Majority of parents were holding secondary degree 13(36.1%), were unemployed 24(66.7%), 21(58.3%) were from rural area and dealing with generalized seizure type children 24(66.7%). The average seizures frequency per month was 2.64+1.15.

In a study conducted on family members care perceptions and satisfaction showed that family members of patients who have diagnosed for more than 2 years can provide better care. In comparison of younger family members caregivers older members reported good family functioning. 13

In current study it was revealed that most of the caregivers were mothers. In a study regarding gender contribution in family functioning reported that male participants have higher score of FAD as compared to women's. Male were more dysfunctional in problem solving, affective responsiveness, communication and general health.^{14,15}

In current study it was observed that families of epileptic patients have more dysfunctional, especially in terms of problem solving, behavior control, affective involvement and also families faces difficulties in finding their role. The results of another study also similar with current study in which they reported that epileptic patients have lower score in FAD specially in problem solving, communication, general functioning and responsiveness. ^{15,16}

In another study it was reported that patients with epilepsy have higher family dysfunction especially in roles and behavior control which is also in accordance to current study.¹⁷

In another study it was reported that patients with epilepsy have greater anxiety and depression and also lower family functioning. They are also not satisfied by their family and social support. Instrumental support decreases their anxiety.¹⁸

By enhancing family and emotional supports and decreasing depression could promote the family functioning and marital quality of epileptic patients.

CONCLUSION

The families of epileptic patients have more dysfunctional, especially in terms of problem solving, behavior control, affective involvement and also families faces difficulties in finding their role. Family support has positive impact on patient's life. Therefore educational programme focusing on the importance of family functioning should be provided so that the aspect of treatments and social life of patients get improved.

REFERENCES

 Thijs RD, Surges R, O'Brien TJ, Sander JW. Epilepsy in adults. The Lancet. 2019 Feb 16;393(10172):689-701.

- Mogal Z, Aziz H. Epilepsy treatment gap and stigma reduction in Pakistan: A tested public awareness model. Epilepsy & Behavior. 2020 Jan 1;102:106637.
- WHO. Epilepsy in the south-east Asia region- bridging the gap.Geneva, Switzerland: WHO; 2005
- Šiddiqui F, Sultan T, Mustafa S, Siddiqui S, Ali S, Malik A, Sajjad Z, Barech S, Jooma R. Epilepsy in Pakistan: national guidelines for clinicians. Pakistan Journal of Neurological Sciences (PJNS). 2015;10(3):47-62.
- Mehndiratta P, Sajatovic M. Treatments for patients with comorbid epilepsy and depression: a systematic literature review. Epilepsy & Behavior. 2013 Jul 1;28(1):36-40.
- Aydemir N, Özkara Ç, Ünsal P, Canbeyli R. A comparative study of health related quality of life, psychological well-being, impact of illness and stigma in epilepsy and migraine. Seizure. 2011 Nov 1;20(9):679-85.
- Mac TL, Tran DS, Quet F, Odermatt P, Preux PM, Tan CT. Epidemiology, aetiology, and clinical management of epilepsy in Asia: a systematic review. The Lancet Neurology. 2007 Jun 1;6(6):533-43.
- Folkman S. Personal control and stress and coping processes: a theoretical analysis. Journal of personality and social psychology. 1984 Apr;46(4):839.
- Jiang H, Wang L, Zhang Q, Liu DX, Ding J, Lei Z, Lu Q, Pan F. Family functioning, marital satisfaction and social support in hemodialysis patients and their spouses. Stress and Health. 2015 Apr;31(2):166-74.
- Hartshorn JC, Byers VL. Importance of health and family variables related to quality of life in individuals with uncontrolled seizures. The Journal of neuroscience nursing: journal of the American Association of Neuroscience Nurses. 1994 Oct 1;26(5):288-97.

- Mendes TP, Crespo CA, Austin JK. The psychological costs of comparisons: Parents' social comparison moderates the links between family management of epilepsy and children's outcomes. Epilepsy & Behavior. 2017 Oct 1;75:42-9.
- Epstein NB, Bishop DS, Levin S. The McMaster model of family functioning. Journal of Marital and Family therapy. 1978 Oct;4(4):19-31
- Kristjanson LJ, Leis A, Koop PM, Carriere KC, Mueller B. Family members' care expectations, care perceptions, and satisfaction with advanced cancer care: results of a multi-site pilot study. Journal of palliative care. 1997 Dec;13(4):5-13.
- Chabolla DR, Krahn LE, So EL, Rummans TA. Psychogenic nonepileptic seizures. InMayo Clinic Proceedings 1996 May 1 (Vol. 71, No. 5, pp. 493-500). Elsevier.
- Curt LaFrance, Jr W, Alosco ML, Davis JD, Tremont G, Ryan CE, Keitner GI, Miller IW, Blum AS. Impact of family functioning on quality of life in patients with psychogenic nonepileptic seizures versus epilepsy. Epilepsia. 2011 Feb;52(2):292-300.
- Ekinci O, Isik U, Gunes S, Yildirim C, Killi Y, Guler G. Self-concept in children and adolescents with epilepsy: The role of family functioning, mothers' emotional symptoms and ADHD. Brain and Development. 2016 Sep 1;38(8):714-22.
- Unal S, Kaya B, Cekem B, Ozişik HI, Cakil G, Kaya M. Family functioning in patients with schizophrenia, bipolar affective disorder and epilepsy. Turk psikiyatri dergisi= Turkish journal of psychiatry. 2004 Jan 1;15(4):291-9.
- Wang YH, Haslam M, Yu M, Ding J, Lu Q, Pan F. Family functioning, marital quality and social support in Chinese patients with epilepsy. Health and quality of life outcomes. 2015 Dec;13(1):1-8.