

Quality of Life Enhancement Program for People with Temporal Lobe Epilepsy

Jayasree Sampath^{1*}, Sarah Manickaraj²

ABSTRACT

People with epilepsy have challenges in their daily life and low quality of life. People clinically diagnosed with temporal lobe epilepsy and follow up were chosen for the study. Sample of 150 were chosen. 75 people with temporal lobe epilepsy having reduced quality of life, aged above 20 years and below 40 years, Men and women, graduates and non-graduates, lower and middle income group, rural and urban population were included in the study. People with head injury, previous history of brain surgery, depression, hearing and speech impairment were excluded from the study. They were assessment using the standard tool for quality of life of epilepsy QUOLIE – 31 (Barbara, 1993). Quality of life enhancement program was provided as a comprehensive structured program for a month. Results revealed that quality of life of people with temporal lobe epilepsy was significantly increased after the training program. Quality of life enhancement program enhances the quality of life of people with epilepsy and more effective when given as a comprehensive individual therapy along with cognitive behavior therapy.

Keywords: *Temporal Lobe Epilepsy, Quality Of Life And Cognitive Behavior Therapy*

International League Against Epilepsy (2014) developed an operational definition as it confirms the diagnosis of epilepsy if a person have to meet the following conditions: a) Atleast two unprovoked (reflex) seizures occurring greater than 24 hours apart, b) One unprovoked seizure (reflex) and a probability of further general seizure recurrence after two unprovoked seizure, occurring over next 10 years.

Temporal lobe epilepsy results in memory loss, psychological issues like anger and anxiety and therefore it may influence the quality of life. Vanegas et al., (2013) study revealed that people with drug resistant temporal lobe epilepsy had reduced quality of life.

¹ PhD Research Scholar, Research and Development Center, Bharathiyar University, Coimbatore, India

² Research Supervisor, Associate Professor, department of psychology, Presidency, Chennai, India

**Responding Author*

Received: March 20, 2017; Revision Received: March 29, 2017; Accepted: March 30, 2017

Quality of Life Enhancement Program for People with Temporal Lobe Epilepsy

The co-morbid psychological factors like attention deficit, memory (Dobbins et al., 2008; Indre et al, 2000; Zenteno et al., 2007), anger, aggression, anxiety, depression (Jennifer 2014), behaviour problem (Cornaggia 2006) & quality of life .World Health Organization (1996) defines quality of life as individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. In the context of epilepsy, quality of life is considered as health related in three dimensions such as physiological, psychological and social (Elliot and Mares, 2012).

Quality of life (QOL) means a good life and we believe that a good life is the same as living a life with a high quality (Ventegodt et al., 2003). The integrative quality-of-life (IQOL) theory includes various aspects like well being, satisfaction with life, happiness, meaning in life, the biological information system ("balance"), realizing life potential, fulfillment of needs, and objective factors (Ventegodt et al., 2003). The present study was aimed to explore the effect of quality of life enhancement program in a structural form provided with person centered approach. The combination of biopsychosocial approach being the basic structure of the intervention. Psychoeducation, life style modification and epilepsy counseling.

Objective

- To find out the effect of quality of life enhancement program on people with temporal lobe epilepsy.

Hypothesis

- There will be no significant increase in the quality of life of people with temporal lobe epilepsy after quality of life enhancement program

METHOD

Sample

Purposive sampling was used in the present study. A total of 180 people with temporal lobe epilepsy were administered the psychological questionnaire who were diagnosed and on follow up under the epilepsy clinic since 2011. Out of which 150 sample those fulfilled the inclusion criteria were selected, 75 sample were included in experimental group for whom memory training was given and 75 sample were in control group to whom no interventions were given.

Inclusion Criteria: People with temporal lobe epilepsy who were aged above 20 years (n-70) and below 40 years (n-80), epilepsy uncontrolled with medications for more than 5 years, mild to moderate memory problems were chosen for the present study; Men (n- 87) and women (n-62), non-graduates (n-27) and graduates (n-123), unemployed (n-59) and employed (n-91), unmarried (n-125) and married (n-25), lower income (n-52) and middle income (n-98) group, rural (n-60) and urban (n-90) were included. **Exclusion Criteria:** People with epilepsy known to have depression, head injury prior and after the diagnosis of epilepsy, brain surgery for any cause including epilepsy, with hearing and speech impairment.

Quality of Life Enhancement Program for People with Temporal Lobe Epilepsy

Tool

Quality of life in epilepsy (QUOLIE-31 by Barbara, 1993) was administered on all the samples during individual assessment session by the single investigator. This scale was developed by Barbara in the year 1993. This scale consists of 31 items on a likert scale with high reliability and validity for using it among people with epilepsy. Higher the score better the quality of life. The score ranges from 0 to 100. The questionnaire on quality of life in patients with epilepsy (QOLIE-31) consists of seven scales in the following sub dimensions: emotional well-being, overall quality of life, social functioning, energy/fatigue, cognitive functioning, seizure worry and medication effects.

Procedure

This study was conducted as individual sessions. Informed consent was obtained from the subjects before they participate in the study. The personal data sheet was completed before administering the quality of life measure.

Phase I – Pretest was conducted using Quality of life scale for epilepsy by Barbara, 1993. The scale was administered and the QUOLIE score was obtained.

Phase II – Intervention with Quality of life enhancement program was included in the sessions along with the therapy sessions included the following aspects, Suggestions were given for daily activity planning for people with epilepsy, Sleep hygiene – discussion to maintain atleast six to eight hours of sleep since sleep deprivation can trigger epilepsy. Food hygiene – discussion about overeating and skipping food, Medications protocol – Advise not to skip even a single dose that can trigger epilepsy, Time allotted for discussing their daily concerns , Planning and implementation of relaxing activities including exercises, hobbies and social activity, Discussing the issues related to interpersonal skill management , Identifying short term and long term goal planning.

Quality of life enhancement program included psycho-education, cognitive distortions related to the challenges in daily life, alternative coping and management strategies based on individual needs. Psychotherapy exercises like cognitive restructuring, positive statement framing, social play were performed. Relaxations techniques like progressive muscular relaxation, identifying cognitive distortions and activities scheduling with motivation interviewing were included in the training program.

Phase III- post test was administered to find the effect of quality of life enhancement program after a gap of one month.

Quality of Life Enhancement Program for People with Temporal Lobe Epilepsy

Statistical analysis

Paired student t test was used to analysis the data and obtain the effect of the quality of life enhancement program.

RESULTS AND DISCUSSION

The table 1 suggests that overall quality of life score (Mean 58.51, SD 12.27) and post test scores (Mean 86.80, SD 9.97). The statistical analysis revealed the maximum effect and the t value (15.21) and with p value less than 0.05. Significant values were obtained in all sub domains of anger, except worries related to the effect of medication.

Table-1 showing the Mean, SD, t-value and level of significance before and after quality of life enhancement program for people with epilepsy in quality of life

Dimension		N	Mean	SD	t - value
Energy	Before	75	61.70	15.40	3.95**
	After	75	71.42	15.35	
Emotion	Before	75	56.29	17.20	5.23**
	After	75	71.13	16.92	
Activities of daily living	Before	75	54.65	21.63	5.72**
	After	75	73.92	20.69	
Mental health	Before	75	58.73	17.20	3.33**
	After	75	68.69	17.13	
Medication effect	Before	75	58.67	18.60	1.71(N.S)
	After	75	63.67	18.60	
Seizure worry	Before	75	55.95	14.88	1.98*
	After	75	60.95	14.88	
Quality of life	Before	75	57.33	9.74	9.53**
	After	75	72.33	9.74	
Overall quality of life	Before	75	58.51	12.27	15.21**
	After	75	86.60	9.97	

*Significant at the 0.05 level, **significant at the 0.01 level N. S Not significant

Energy of people with epilepsy increased after quality of life enhancement program. sleep hygiene, proper intake of food and medication were suggestions given and that could have helped them gaining energy. Vangeas et al., (2013) reported reduced quality of life in the dimensions seizure worry, social function, emotional well being and cognition. The results obtained in this study are similar to the study by Vanegas et al., (2013). Training program enhances the level of energy of people with epilepsy and thereby enhancing their quality of life (Trimble et al. 1994). Hence comprehensive person centered therapy enhances quality of life.

Emotion of people with epilepsy increased after quality of life enhancement program. time allotted for discussing their daily concerns, increased social interaction and planned short term

Quality of Life Enhancement Program for People with Temporal Lobe Epilepsy

and long term goal could have helped them gain emotional stability. Since anger and anxiety are the frequently reported problems among people with temporal lobe epilepsy. Cognitive behavioural approach have proven to help reducing emotions to gain better control over epilepsy though it does not reduce epilepsy (Michaelis et al., 2012 and Au, 2003). Activities of daily living of people with epilepsy increased after quality of life enhancement program. Training program for quality of life of people with epilepsy can show a clear benefit in their life (Salgado et al., 2009). Holistic training programs that include the caretakers along with psychoeducation support the enhancement of quality of life.

Mental health of people with epilepsy increased after quality of life enhancement program. Psychoeducation could have increased their awareness about the symptoms of epilepsy, epilepsy counselling reduced their worries related to the uncertain episodes of epilepsy. Coping sessions of epilepsy and interpersonal sessions could have increased their social life thereby improving their mental health. Behavioural training program supported people with epilepsy by reducing the emotional symptoms as suggested by Olley (2001), Jantzen (2009) and Chaytor (2011). Seizure worry of people with epilepsy decreased after quality of life enhancement program.

Cognitive behavior therapy had proven promising and significant role in reducing anxiety in people with epilepsy by Jones et al., (2004) and similarly the reduction anxiety level indicates the reduction of seizure related worry of people with epilepsy after quality of life management program. Quality of life of people with epilepsy increased after quality of life enhancement program. McCagh (2014) gave interventions that focus on increasing self-worth, developing effective coping strategies and positive cognition will help the individual accept their diagnosis, reduce psychosocial deficits and ultimately enhance quality of life.

The effect of medication did not significantly improve since people with uncontrolled temporal lobe epilepsy were using medications regularly but had epilepsy, reduced quality of life and side effects of anticonvulsants. People with epilepsy are unhappy about the consumption of anticonvulsants but had no option to control their epilepsy. Hence, worries related to effects of medication were persistent among them.

CONCLUSION

Quality of life of people with temporal lobe epilepsy increased with quality of life enhancement program. Cognitive behavior therapy based approach has proven successful in enhancing their energy level, mental health, emotional stability and quality of life. The study confirms the strong effect of quality of life based training programs and its significance in enhancing the quality of life of people with epilepsy along with the need for psychological and social rehabilitation apart from medical management.

Acknowledgments

The author appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interests

The author declared no conflict of interests.

REFERENCES

- Alonso-Vanegas MA, Cisneros-Franco JM, Castillo-Montoya C, Martínez-Rosas AR, Gómez-Pérez ME, Rubio-Donnadieu F (2013). Self-reported quality of life in pharmaco-resistant temporal lobe epilepsy: correlation with clinical variables and memory evaluation. *Epileptic Disord.* Sep;15(3): 263-71.
- Au A, Chan F, Li K, Leung P, Li P and Chan J (2003). Cognitive-behavioral group treatment program for adults with epilepsy in Hong Kong. *Epilepsy Behav.* Aug; 4 (4): 441-446.
- Cesare Maria cornaggia, Massimiliano Beghi, Milena Provenzi, Ettore Beghi (2006). Correlation between Cognition and Behaviour in Epilepsy. *Epilepsia.* vol.47, Issue 2, Nov, 34-39
- Chaytor, N, Ciechanowski, P., Miller, J.W., Fraser, R., Russo, J., Unutzer, J., Gilliam, F (2011). Long-term outcomes from the PEARLS randomized trial for the treatment of depression in patients with epilepsy. *Epilepsy Behav.* Mar; 20 (3): 545-9. doi: 10.1016/j.yebeh.2011.01.017. Epub 2011 Feb 18.
- Dobbins, I.G., Kroll, N.E., Tulving, E., Knight, R.T., and Gazzaniga, M.S. (2008). Unilateral medial temporal lobe memory impairment: Type deficit, function deficit, or both? *Neuropsychologia* 36:115–127.
- Elliott JO, Mares AS (2012). Gender differences in quality of life among Canadian adults with epilepsy. *Epilepsy Research.* Vol.100 (1-2) pages 42–48. [PubMed: 22309947]
- Indre V. Viskontas, Mary Pat McAndrews, and Morris Moscovitch. Remote episodic memory deficits in patients with unilateral temporal lobe epilepsy and excisions; *The Journal of Neuroscience*, August 1, 2000, 20(15):5853-5857
- International league association for epilepsy (2014). *Epilepsy is still a puzzle.* <http://www.ilae.org/Visitors/Centre/Definition-2014.cfm>
- Jane McCagh (2014). *Quality of Life Issues in Epilepsy*, *Epilepsy Topics*, Prof. Mark Holmes (Ed.), InTech, DOI: 10.5772/58689.
- Jantzen S, Muller-Godeffroy E, Hallfahrt-Krisl T, Aksu F, Pust B, Kohl B, Redlich A, Sperner J, Thyen U. FLIP&FLAP: A training programme for children and adolescents with epilepsy, and their parents. *Seizure.* 2009; 18 (7): 478–486. [PubMed]
- Jennifer, Weston., Melissa, Maguire., Jasvinder, Singh and Anthony, Marson (2014). Antidepressants for people with epilepsy and depression. *Cochrane Library.* DOI: 10.1002/14651858.CD010682.pub2

Quality of Life Enhancement Program for People with Temporal Lobe Epilepsy

- Jones, J.E., Johnson, E.K., Seidenberg, M., & Hermann, B.P. (2004). The relative impact of anxiety, depression, and clinical seizure features on health-related quality of life in epilepsy. *Epilepsia*, vol. 45, no. 5, pp. 544–550, 2004.
- Micharlis, R., Schonfoeld, W and Elsas, S.M (2012). Trigger self-control and seizure arrest in the Andrews/Reiter behavioral approach to epilepsy: a retrospective analysis of seizure frequency. *Epilepsy Behav.* 2012 Mar;23(3):266-71. doi: 10.1016/j.yebeh.2011.11.023. Epub 2012 Feb 15.
- Salgado, Priscila Camile Barioni, & Cendes, Fernando. (2009). The effects of epileptic seizures upon quality of life. *Journal of Epilepsy and Clinical Neurophysiology*, 15(3), 110-113. <https://dx.doi.org/10.1590/S1676-26492009000300003>
- Olley BO, Osinowo HO, Brieger WR (2001). Psycho-educational therapy among Nigerian adult patients with epilepsy: a controlled outcome study. *Patient Educ Couns.* Jan; 42(1):25-33.[PubMed].
- Soren Ventegodt, Niels Jorgen Anderson and Joav Merrick (2003). Quality of Life Philosophy III. Towards a New Biology: Understanding the Biological Connection between Quality of Life, Disease, and Healing. *The Sientificworld Journal*.vol.3:Dec 1186-1198.
- WHO (World Health Organization) WHOQOL-BREF: *Introduction, administration, scoring and generic version of the assessment*. Geneva, Switzerland: WHO; 1996. [January 3, 2012]. http://www.who.int/mental_health/media/en/76.pdf.
- Tellez-Zenteno JF, Patten SB, Jette N, Williams J, Wiebe S. Psychiatric comorbidity in epilepsy: a population-based analysis. *Epilepsia*. 2007 Dec;48(12):2336–44. [PubMed]

How to cite this article: Sampath J, Manickaraj S (2017), Quality of Life Enhancement Program for People with Temporal Lobe Epilepsy, *International Journal of Indian Psychology*, Volume 4, Issue 2, No. 96, ISSN:2348-5396 (e), ISSN:2349-3429 (p), DIP:18.01.193/20170402, ISBN:978-1-365-84232-0