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Effectiveness of an Acceptance and Commitment Program to Improve the Quality of Life of a Sample of Patients with Psychomotor Epilepsy

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Abstract

The study aimed to develop an acceptance and commitment program to improve the quality of life for a sample of patients with psychomotor epilepsy. The study included (10) patients suffering from epilepsy, who were divided into two groups: an experimental group and a control group, with each group consisting of (5) patients experiencing psychomotor seizures. The program was delivered to the experimental group and consisted of (14) sessions, held twice a week, with each session lasting approximately one hour. A quasi-experimental design was utilized, and a quality of life scale along with the acceptance and commitment program developed by the researcher was employed. Statistical results indicated the effectiveness of the program in improving the quality of life of the experimental group, with sustained improvements in disease management after the program's completion and during the follow-up period. A series of recommendations were provided.

Keywords: Acceptance and Commitment Therapy (ACT) - Quality of Life- Psychomotor Epilepsy-Intervention Program

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Introduction:

Epilepsy is a chronic condition that fundamentally affects patients' health and their overall quality of life. It leads to deficits in social functions, activities, and employment, and contributes to psychological distress and memory disorders. Other studies have shown that epilepsy is associated with feelings of social stigma, low self-esteem, and weakened social relationships with friends and family. Many researchers have focused on studying the quality of life of epilepsy patients and their families, indicating the necessity of using psychoanalysis to improve their quality of life.

Epilepsy is one of the organic neurological disorders that affects the human brain, characterized by increased electrical discharges that require release through seizure episodes. It is also considered a serious organic disorder due to its clear impact on the lives of patients, their families, and those around them. Throughout history, epilepsy has been explained in various and contradictory ways; in ancient times, it was described as a "sacred disease" because those who suffered from it were believed to be surrounded by angels. Later, it was interpreted as a condition caused by demonic possession, with the seizures and accompanying symptoms seen as manifestations of this affliction.The conflict between angels and demons surrounding the patient suggests that, according to this view, an epilepsy patient is someone possessed by demons and evil spirits. (Wilde & Haslam, 1996; Barker et al., 1997a, b; Ogata & Amano, 2000)

Epilepsy is noted as one of the unique chronic neurological disorders that significantly impact quality of life, often beginning at a young age, which hinders social and cognitive development. Additionally, it imposes restrictions on functioning, driving, and associated psychological disorders. (Deviensky, Vickrey & Cramer, 1995; Hermann et al., 2000b; Kanner & Palac, 2000; Gilliam, Hecimovic & Sheline, 2003)

Hills and Baker (1992) indicate a relationship between social stigma, low self-esteem, social support, and poor social communication among epilepsy patients. In a study involving 28 adult patients, they found that educating patients about their condition was more effective in enhancing self-esteem among those with epilepsy.

Ettinger, Weisbrot, and Nolan (1998a) noted that feelings of fatigue and depression profoundly affect the quality of life in epilepsy patients. Barker and Jacoby (2002) pointed out a positive relationship between quality of life and social support among adult epilepsy patients. Furthermore, a study by Valquez and Devinsky (2003) showed that anxiety disorders are linked to a lower quality of life, with anxiety resulting from heightened psychological responses, leading to decreased self-esteem and feelings of stigma and social rejection, which, in turn, increases the frequency of seizures.

It has also been found that the relationship between epilepsy and psychological stress is significantly positive. Many studies, such as Hermann et al. (2000), Suurmejer et al. (2001), and Haut et al. (2003), have indicated that increased emotional and behavioral stress is associated with a lower quality of life in epilepsy patients. Researchers in quality of life emphasize the need to dedicate efforts and attention to studying the underlying effects of psychological stress associated with epilepsy. Broadly, it can be stated that stress and environmental factors often trigger seizures in epilepsy patients, highlighting the importance of behavioral theories in reducing and managing stress. Seizures can also cause embarrassment for the epilepsy patient when they occur in front of others and fear of others' reactions. (Fisher et al., 2000; Mittan, 2005) In a study by Collings (1990) on psychosocial well-being and epilepsy, a range of variables such as self-esteem, quality of life, social difficulties, interpersonal issues, discomfort, and happiness were examined among a sample of epilepsy patients and healthy individuals. The results showed a lower level of well-being among epilepsy patients compared to healthy individuals. In terms of self-esteem, the epilepsy patient group viewed themselves as less valuable, less compatible, less capable of self-reliance, less mature, less stable, more prone to disability, less successful, less organized, and unpredictable in their behavior. Many literatures on epilepsy have addressed an important aspect of explaining the psychological and social outcomes of the disease, which is the stigma approach. Dilorio et al. (2003) conducted a study on 320 epilepsy patients (both male and female adults), aged 19 to 75, showing that individuals with high levels of social stigma had lower self-efficacy and poorer seizure management. The study suggests that understanding the factors associated with feelings of social stigma is necessary to develop interventions aimed at protecting patients.Amir et al. (1999) refer to the association of epilepsy with several psychosocial factors, including low self-esteem, anxiety, depression, altered consciousness, lack of self-control, and feelings of social stigma. Watten and Watten (1999) note that epilepsy patients suffer from social isolation, anxiety, introversion, social withdrawal, loss of self-confidence, and limited opportunities to learn social skills. Morrel (2002) adds that social stigma affects personal relationships, general health, employment opportunities, frustration, and overall quality of life.

Results from a study by Kumari et al. (2009) indicate a correlation between social stigma and reduced quality of life among epilepsy patients, marking the first report addressing the relationship between social stigma and quality of life in India.

Some researchers have adopted theoretical models to clarify the relationship between epilepsy, lower quality of life, self-esteem, and coping strategies. Jacoby (1992), Hermann et al. (2000), and Au et al. (2002) highlight the significance of psychosocial variables, which increasingly outweigh biomedical variables in predicting quality of life for epilepsy patients. Furthermore, lower quality of life is associated with higher seizure frequency, increased levels of anxiety and depression, and lower social support.

Szaflarski and Szaflarski (2004) demonstrated in their study that mood disorders, especially depression and the feeling of social stigma, contribute to decreased quality of life, suggesting that mood treatment is the first step in improving quality of life.

A study by Stavem, Log, and Kaasa (2000) found that epilepsy patients face numerous psychological and social challenges. The study results indicate the disease's impact on health among a sample of 397 epilepsy patients, showing that patients who are seizure-free and not on antiepileptic medication have better health than those experiencing recurrent seizures, particularly in cases of refractory epilepsy

Epilepsy encompasses a range of disorders with varied origins, symptoms, and prognoses. While many individuals can effectively control their seizures, 40% of patients live with persistent seizures and must cope with both the consequences of seizures and their treatment. Researchers aim to mitigate the impact of seizure disorders on daily life (Begley, Famulari & Annegers, 2000). However, the psychological implications of the disease weaken the patient's resilience by acting as subsequent triggers for seizures, thus exacerbating psychological and social issues and contributing to increased seizure frequency. Numerous studies have demonstrated the effectiveness of behavioral interventions for patients with seizures, which has motivated the current research.

Upon reviewing previous studies, the researcher found that most focused solely on reducing seizure frequency, emphasizing clinical aspects without addressing quality of life improvement. The current study aims to bridge this gap.

The research problem can be formulated in the following question:

"What is the effectiveness of an Acceptance and Commitment Therapy program in improving the quality of life for a sample of patients with epilepsy?"

Importance of the Study

- Epilepsy represents a significant health problem with considerable economic and human costs. Having an epilepsy patient in the family can disrupt family life, leading to a loss of happiness and psychological stability among its members, and recurrent seizures may result in job loss and decreased productivity.

- Despite the substantial attention given to epilepsy from a medical and neurological standpoint, there remains a neglect of academic and clinical psychological programs. Therefore, this study is important as it focuses on a critical psychological aspect of treating this disorder.

- Highlighting the importance of the therapeutic approach used in improving quality of life and reducing feelings of social stigma.

Previous Studies on Quality of Life in Epilepsy Patients

Recent years have shown a growing interest in identifying the factors that affect the quality of life for individuals with epilepsy. Researchers have noted the impact of medical interventions on quality of life, while understanding has increased regarding the significant influence of psychosocial factors on quality of life and life satisfaction among those with epilepsy. (Bishop, Berven, Hermann & Chan, 2002) Lacchoe et al. (2008) assessed the quality of life in elderly epilepsy patients, revealing that quality of life was lower across all domains for older adults compared to healthy individuals without epilepsy.

Studies indicate a pressing need for research on quality of life to evaluate the impact of epilepsy on psychological and social functioning. This research could lead to initiatives aimed at defining the quality of life for epilepsy patients to better understand and address the condition socially, psychologically, neurologically, and physically. (Baker, 2001)

Birbeck, Hays, Cui, and Sackellares et al. (2002; 2002) noted that there has been an increasing interest in epilepsy, its treatment, and its impact on quality of life over the past decade. This interest goes beyond merely describing the burden of the disease to also reflecting on the effects of antiepileptic drugs and the severity of seizures.

Bishop and Allen (2003) conducted an analytical study to evaluate the impact of epilepsy on quality of life in a sample of 46 adults suffering from refractory seizures. The results clearly showed the effects of epilepsy on patients' lives, particularly the indirect impact on cognitive processes associated with seizures, along with lists of factors affecting quality of life, such as breathlessness, feelings of stigma, seizure anxiety, and cognitive impairment.

Baker et al. (2005) focused on the quality of life of epilepsy patients in Iran, the Gulf, and the Middle East, noting the impact of epilepsy on health status. They found that over two-thirds of the study sample experienced recurrent seizures and side effects from medications, which also affected their aspirations, future, and self-perception.

Zhu et al. (1998) conducted a comparative study involving 117 epilepsy patients and 84 healthy individuals to examine quality of life and personality among adult epilepsy patients. The study results indicated a significant decrease in quality of life for epilepsy patients experiencing recurrent seizures.

Barry (2003) studied the impact of mood disorders on quality of life, indicating that mood changes and declines often occur approximately 72 hours before a seizure. He highlighted the importance of cognitive-behavioral interventions in improving quality of life and treating mood disorders.

Suurmeijer et al. (2005) and Mula et al. (2006) conducted a study aimed at examining psychological and social functions as well as quality of life in epilepsy patients. The results indicated the presence of symptoms such as psychological distress, feelings of loneliness, stigma, and decreased quality of life.

Rodriguez Altshuler et al. (1999) reported an increase in the prevalence of social isolation, dependency, deficiencies in psychosocial functioning, and personality disorders as a consequence of epilepsy. The only variable associated with these disorders was the presence of epileptic auras, with patients experiencing auras showing a higher tendency towards depression.

Harden et al. (2007) studied the effect of seizure severity on quality of life in a sample of 118 adult women. The study revealed a statistically significant relationship between seizure severity, cognitive and social functioning, seizure anxiety, and its negative impact on overall quality of life.

Effectiveness of Psychological Programs to Improve Quality of Life in Epileptic Patients

Tan and Bruni (1986) conducted a study aimed at reducing seizure frequency and stress while alleviating some psychological and social issues using cognitive-behavioral techniques in a sample of 30 adults suffering from refractory seizures and psychological problems (anxiety, depression, and lack of seizure control). Patients were divided into three groups:The first group received treatment from an outpatient epilepsy clinic, with controlled variables such as duration of illness, age at onset, monthly seizure frequency, and seizure recall. They completed the Beck Depression Inventory, the Multidimensional Personality Questionnaire, and the Washington Psychological Inventory for Seizures, along with daily logs of seizure frequency and related events.

The cognitive-behavioral therapy program consisted of 8 sessions, each lasting two hours. The first intervention involved self-monitoring and daily recording of stressful life events, thoughts, and feelings preceding seizures. Relaxation techniques, gradual desensitization to distressing emotions and events preceding seizures, and coping skills training were also included. The second group participated in 8 two-hour sessions of group guidance without cognitive techniques, while the control group received no treatment until the end of the study.Results showed no significant differences among the three groups regarding seizure frequency, although the cognitive therapy group showed improvement in psychological variables, with no improvement for the control group.

Puskarick et al. (1992) examined the effectiveness of a progressive relaxation training program to reduce seizure frequency. The sample consisted of 24 epilepsy patients from neurology clinics. A counterbalanced procedure using progressive muscle relaxation techniques was applied over 8 weeks, with sessions consisting of 8 progressive relaxation sessions divided into an experimental group (n=13) with an average age of 39.1 and an average onset age of 17.7 years, and a control group (n=11) with an average age of 39.7 and an average onset age of 16.2 years.The average seizure frequency post-treatment showed a 21% reduction after the first follow-up and a 54% reduction after the final follow-up. The results indicated the effectiveness of the progressive relaxation training program in reducing seizures for eleven individuals, while only three individuals in the control group reported a decrease in seizures. The study emphasized the importance of relaxation therapy, noting its ease of use, non-intrusiveness, and the benefit of integrating it with other treatments.

Reiter and Andrews Study (2000)This study aimed to verify the effectiveness of a behavioral program to reduce seizure frequency and improve quality of life in patients with complex partial seizures. The sample included 11 adult patients aged between 19 and 58 years, who experienced seizure frequencies of 1-15 per month before starting behavioral treatment. Behavioral interventions included techniques such as deep breathing and cognitive restructuring to enhance self-awareness and seizure control. Results indicated that 9 patients achieved zero seizures after treatment, with significant improvements in quality of life during and after the treatment period. The study emphasized that improving quality of life is essential for effective seizure control.

Mcauley et al. Study (2001)This study examined the effectiveness of an exercise program for behavioral and clinical treatment in epilepsy patients. Results highlighted the importance of improving behavioral outcomes in patient care, noting that epilepsy often discourages patients from participating in sports and exercise. The study also addressed the challenges faced by epilepsy patients in engaging in physical activity.

Specter et al. Study (2001)This study focused on assessing self-control over seizures, aiming to distinguish demographic and psychological variables related to high and low self-control. The sample included 100 patients (41 males and 59 females) suffering from intractable seizures, with ages ranging from 18 to 65 years.Patients were diagnosed using electroencephalography (EEG) according to specific criteria. Results indicated that low self-control was linked to fatigue, stress, depression, anger, and boredom, while higher self-control was associated with seizure history and overall seizure frequency. The study also found that females experienced more frequent seizures compared to males.

Au et al. Study (2003)

This study examined the effectiveness of a group cognitive-behavioral therapy program for epilepsy patients in Hong Kong. The sample consisted of 17 patients diagnosed with epilepsy, with an average seizure frequency of two per month. Patients were divided into experimental and control groups.The program included 8 weekly sessions and utilized techniques such as self-control strategies, relaxation training, and cognitive restructuring. Results showed improvement in performance for the experimental group in quality of life and self-efficacy after 3 months of follow-up, although no significant differences in seizure frequency were noted between the groups.

Methodology and Procedures

Study Classification

The current study is classified as an experimental study that relies on a quasi-experimental design.

Sample of the Study

The study sample consisted of 10 patients, aged between 20 and 45 years, divided into two groups:Experimental Group (N=5)- Control Group (N=5) This group did not receive the program.

Steps for Sample Selection

Participants in this study were drawn from patients attending the outpatient clinic in the Department of Psychiatry and Neurology at Menoufia University. The following criteria were considered for their selection:

1. Obtaining verbal consent from the epilepsy patient to participate in the treatment.

2. Patients were diagnosed using electroencephalography (EEG).

3. Duration of illness should be two years or more.

4. Educational level: diploma or higher.

5. No changes in the type of medication used since the beginning of participation in the program.

6. No learning difficulties, head injuries, intellectual disabilities, or any surgical procedures on the brain for treating seizures.

Tools of the Study

Quality of Life Assessment for Epileptic Patients (translated and re-standardized by the researcher)

This assessment was developed by Cramer et al. (2003). The original scale consists of 31 items that measure seven symptoms: seizure anxiety, mood, cognitive functions, social functions, medication effects, energy/fatigue, and overall quality of life. This test is the most widely used globally for epilepsy patients due to its brevity and simplicity, as it poses a lighter burden on patients compared to other quality of life assessments that may have 89 items.

Reasons for Choosing the Current Test:

1. Fewer items to avoid burdening patients during application.
2. High reliability and validity coefficients.

Reliability and Validity Measures

The scale's reliability was calculated using several methods, including:

- Cronbach's alpha coefficient, reaching 0.70.
- Validity was assessed through internal consistency and concurrent validity, all indicating that the test enjoys high validity coefficients.

Verification of the Psychometric Properties of the Test

Reliability of the Scale: The researcher calculated the reliability coefficient using Cronbach's alpha, as shown in Table1, indicating that the test has good reliability indicators.

Table (1) Reliability Coefficients Using Cronbach's Alpha for the Quality of Life Assessment (N=30)

no	Sub-Dimensions of the Quality of Life Assessment	Cronbach's Alpha
1	Energy/Fatigue	0.6312
2	Mood	0.693
3	Cognitive Functions	0.8007
4	Medications	0.6607
5	Seizure Anxiety	0.7374
6	Social Functions	0.6091
7	Overall Quality of Life	0.6219

Therapeutic Program Used (Prepared by the Researcher)

Overall Goal of the Program

To assess the effectiveness of a cognitive-behavioral therapeutic program in improving the quality of life for adults with epilepsy seizures. The program aims to achieve the following objectives:

Educate the epilepsy patient** about the nature of their condition, the causes of seizures, and how to cope with the emotional and behavioral changes accompanying it.

- **Identify negative and self-destructive thoughts.**

- **Enhance the patient's ability** to challenge negative thoughts, beliefs, and self-talk.

- **Modify cognitive distortions** in the patient.

- **Reduce symptoms of anxiety.**

- **Improve quality of life** and enhance self-esteem.

- **Develop the patient's ability** to establish successful social relationships and enhance social communication skills.

Techniques of the Program

The therapeutic program is based on a set of cognitive and behavioral techniques, informed by theoretical perspectives and previous research in this field. These techniques include:

- Relaxation techniques and breathing exercises
- Self-monitoring techniques
- Self-talk techniques and homework assignments
- Identifying distorted automatic thoughts and working to correct them
- Attention diversion techniques
- Exposure and gradual desensitization to stress
- Self-affirmation techniques

Treatment Approach Used in the Current Program

The researcher utilized an individual approach in the current therapeutic program, tailored to the nature and objectives of the therapeutic process. The aim is to provide each member of the therapeutic group the opportunity to discuss individual problems without embarrassment or fear.

General Instructions for the Program

- The program was implemented in the outpatient clinic at the Faculty of Medicine and the Faculty of Arts at Menoufia University.
- Sessions were characterized by a warm, friendly, and comfortable atmosphere.
- Commitment to the allocated time for each session as much as possible.
- Tasks were clarified for both the therapist and the experimental study sample.
- Session proceedings were documented immediately after completion.
- Psychological and neurological assessments were conducted before the program, every four sessions, and at the end of the program for epilepsy patients.
- Patients provided evaluations at the end of the sessions to gauge the extent to which the desired goals were achieved.

Time Distribution of the Program

The current therapeutic program consisted of 14 therapeutic sessions, held twice a week, with each session lasting approximately one hour, depending on the content of each session and the circumstances of the participants. The therapy and assessments were conducted individually in outpatient clinics specializing in psychological and neurological care in Menoufia Governorate. The follow-up period for the program lasted two months.

Results of the Study and Discussion

Results of the First Hypothesis and Discussion

The first hypothesis states: "There are significant differences between the experimental group and the control group in performance on the following tests (Quality of Life) in the post-measurement favoring the experimental group."

- The researcher conducted descriptive statistics for the study sample on the tests used. To test this hypothesis, the Mann-Whitney U test was employed as a non-parametric statistical method to identify differences between the experimental and control groups before and after the program.

Table (2) **Results of the Mann-Whitney U Test for the Performance of the Experimental and Control Groups in Pre- and Post-Measurements on the Used Tests**

Sub-Dimensions of the Quality of Life Assessment	Application	Control Group		Experimental Group		**Z** value
		Total ranks	**Average ranks**	**Total ranks**	**Average ranks**	
Energy/Fatigue	Pre-Test	**116.00**	**11.60**	**94**	**9.40**	**.848**
	Post-Test	**106.50**	**10.65**	**103.50**	**10.35**	**0.115**
Mood	Pre-Test	**98.00**	**9.80**	**112.00**	**11.20**	**0.553**
	Post-Test	**57.00**	**5.70**	**153.00**	**15.3**	**3.650**
Cognitive Functions	Pre-Test	**96.00**	**9.65**	**113.50**	**11.35**	**0.655**
	Post-Test	**61.50**	**6.15**	**148.50**	**14.85**	**3.365**
Medications	Pre-Test	**100.00**	**10.00**	**110.00**	**11.00**	**0.389**
	Post-Test	**144.50**	**14.45**	**65.50**	**6.55**	**3.067**
Seizure Anxiety	Pre-Test	**104.50**	**10.45**	**105.5**	**10.55**	**0.041**
	Post-Test	**90.50**	**9.05**	**119.50**	**11.95**	**1.146**
Social Functions	Pre-Test	**153.00**	**15.30**	**57.00**	**5.70**	**3.673**
	Post-Test	**65.50**	**6.55**	**144.50**	**14.45**	**3.042**
Overall Quality of Life	Pre-Test	**109.50**	**10.95**	**100.50**	**10.05**	**0.366**
	Post-Test	**58.00**	**5.80**	**152.00**	**15.20**	**3.623**

- It is evident from the results in Table (2) that the calculated p-value is greater than the critical p-value at the 0.05 level. This indicates that there are no statistically significant differences between the experimental and control groups in the pre-measurement scores on the Quality of Life scale. However, there are statistically significant differences at the 0.05 level between the experimental and control groups in the post-measurement scores, favoring the experimental group.This suggests that the program was more effective in improving the quality of life, particularly in reducing symptoms of seizure anxiety, energy and fatigue, medication-related anxiety, and social functioning, in the post-measurement compared to the control group. Thus, this hypothesis is supported.

The results of the study align with the findings of previous studies (Puskarick et al., 1992; Cull et al., 1996; Schonbein, 1998; Specter et al., 2001; Au et al., 2003; Goldstein et al., 2003), which demonstrated significant differences between the experimental and control groups in post-measurement, indicating improvements in self-efficacy, quality of life, psychosocial factors, reduction of anxiety and depression symptoms, enhanced interaction with the environment, and a noticeable decrease in seizure frequency.

Results of the Second Hypothesis and Discussion

The second hypothesis states: "There are statistically significant differences between the average ranks of the experimental group members in pre- and post-measurements on the Quality of Life tests in favor of the post-application." To verify this hypothesis, the Wilcoxon Matched-Pairs Signed-Rank Test was used to identify the significance of the differences between the average ranks of the experimental group members in the pre- and post-measurements.

Table (3) Results of the Wilcoxon Test for the Significance of Differences Between the Average Ranks of the Experimental Group Members on the Used Tests for Pre- and Post-Measurements

Sub-Dimensions of the Quality of Life Assessment	Application	Negative Ranks	Positive Ranks	Mean Rank	Sum of Ranks	Z-value
Energy/Fatigue	Pre-Test Post-Test	4	**4**	19.50	16.50	0.212
Mood	Pre-Test Post-Test	1	9	6.00	54.00	2.721
Cognitive Functions	Pre-Test Post-Test	0	9	5.00	45.00	2.687
Medications	Pre-Test Post-Test	9	0	0.00	45.00	2.687
Seizure Anxiety	Pre-Test Post-Test	**3**	**5**	4.20	21.00	0.426
Social Functions	Pre-Test Post-Test	0	**10**	5.50	55.00	2.818
Overall Quality of Life	Pre-Test Post-Test	0	**9**	5.00	45.00	2.699

It is evident from Table (3) that there are differences in the scores of the experimental group between the pre- and post-measurements on the Quality of Life scale. This indicates that the differences between the scores of the two groups after applying the cognitive-behavioral therapy sessions were significant and in favor of the post-application, confirming the effectiveness of the program used.

These results are consistent with the findings of Tan & Bruni (1980), which demonstrated the effectiveness of cognitive-behavioral therapy in alleviating psychosocial problems resulting from epilepsy, showing improvements in patients' psychosocial issues. Similarly, McAuley et al. (2001) found that while the cognitive-behavioral program did not change clinical variables (such as seizure frequency or side effects of antiepileptic drugs), it did improve behavioral outcomes (including quality of life, mood, self-concept, and self-esteem). Notably, self-esteem is a key indicator related to quality of life.

Pramuka et al. (2007) conducted an exploratory study to assess the effectiveness of a psychosocial program for self-management, self-efficacy, and quality of life among adult epilepsy patients. The study indicated the program's effectiveness in improving quality of life and self-management. Furthermore, the research by Curt Lafrance et al. (2009) demonstrated success in reducing seizure frequency and improving quality of life, psychosocial factors, and reducing anxiety and depression symptoms while enhancing environmental interaction.

Results of the Third Hypothesis and Discussion

The third hypothesis states that there are no statistically significant differences between the performance of the experimental group in the post-measurement and the follow-up (two months after implementing the program).To test this hypothesis, the researcher conducted the Wilcoxon Matched-Pairs Signed-Rank Test to examine the differences between the average ranks of the experimental group members in the post-measurement and follow-up.

Table (4) **Results of the Wilcoxon Test for the Follow-Up of the Experimental Group**

Sub-Dimensions of the Quality of Life Assessment	Application	| Negative Ranks	Positive Ranks	Mean Rank	Sum of Ranks	Z-value
Energy/Fatigue	Pre-Test Post-Test	6	**2**	4.20	28.50	1.212
Mood	Pre-Test Post-Test	4	5	5.20	21.00	1.721
Cognitive Functions	Pre-Test Post-Test	3	1	4.20	9.00	1.687
Medications	Pre-Test Post-Test	3	1	1.20	3.00	1.687
Seizure Anxiety	Pre-Test Post-Test	**3**	**1**	4.20	3.00	1.426
Social Functions	Pre-Test Post-Test	0	**0**	00.0	00.00	0.000
Overall Quality of Life	Pre-Test Post-Test	2	**3**	3.00	9.00	1.699

Results of the Third Hypothesis and Discussion

It is evident from the results in Table (7) that there are no statistically significant differences between the average ranks of the experimental group in the post-measurement and follow-up on the Quality of Life scale among epilepsy patients. This supports the hypothesis and indicates that the scores did not change after two months following the completion of the program, confirming the continuity of improvement over time.

These findings align with the study by Reiter & Andrews (2000), which indicated that the frequency of seizures after behavioral therapy was zero for nine patients, and each patient experienced significant improvements in quality of life during both the treatment and follow-up phases. Improving quality of life is essential for effective seizure management.

Similarly, the study by Foots et al. (1995) on the use of group therapy to reduce the frequency of seizures showed that the seizure frequency in the treatment group decreased after group intervention, a change not observed in the control group, and this improvement was sustained during the one-month follow-up period

From the above, it is clear that most previous studies have indicated the sustained effectiveness of Acceptance and Commitment Therapy (ACT) after the follow-up period. This approach helps to alleviate negative emotional burdens linked to past experiences and replace negative thoughts with positive ones, leading to a notable improvement in self-esteem, increased self-confidence, better coping skills, and enhanced quality of life.

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