



Research paper

## The Comparing the Effectiveness of Acceptance/Commitment Therapy and Affect Regulation Training on Emotional Dysregulation and Depression in People with Epilepsy

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### Abstract

The present study aimed to compare the effectiveness of ACT and ART on emotional dysregulation and depression in people with epilepsy. This semi-experimental study was conducted with a pretest-posttest design with control group and 2 months follow-up. By convenience sampling 45 of these people were selected and assignment in the 2 experiment groups and 1 control group. The emotion regulation scale and depression were performed. Participants in group1 with ACT and group 2 with ART took 8 training sessions. The obtained data were analyzed through the analysis of variance with repeated. The results showed that both interventions had a significant effect and ART is more effective. Based on the results of the present study, it can be said that ART and ACT can be used as treatment methods to in people with epilepsy and priority of use is with ART.

**Keywords:** ACT, ART, depression, emotional dysregulation, epilepsy.

### Introduction

Emotional dysregulation is a transdiagnostic factor that includes not accepting emotional responses or distress; difficulty participating in targeted no acceptance, goals, impulses, awareness, strategies and clarity (Ertan, et al., 2022). Also, emotional dysregulation in people with epilepsy causes them to experience depression (Wenjie, et al., 2024). According to the DSM guide, it is characterized by features and characteristics such as tired mood, irritable mood and affects various functions of a person's life. Also, psychological problems such as depression have a greater impact on the quality of life of patients with epilepsy. Therefore, people with epilepsy have unmet health care needs, especially in the area of mental health. Although the current literature has proven the increase in the incidence of emotional dysregulation and depression in people with epilepsy and their contribution to low quality of life (Clary, et al., 2023), fewer psychological interventions have been performed on these patients. Therefore, the main hypothesis of the current research was what was the difference between the effectiveness of acceptance/commitment therapy and affect regulation training on emotional dysregulation and depression in people with epilepsy.

## Method

This semi-experimental study was conducted with a pretest-posttest design with control group and 2 months follow-up. By convenience sampling 45 of these people were selected and randomly assignment in the 2 experiment groups and 1 control group. The emotion regulation scale and depression Inventory was performed in the pre-test. Participants in group1 with ACT and group 2 with ART took 8 training sessions of 90 minutes, one session per week. All participants completed tests, once a week after the end of sessions, also, the follow-up stage two months later. The obtained data were analyzed through the analysis of variance with repeated measures and Bonferroni post hoc test.

## Tools

**Difficulties in Emotion Regulation Scale (DERS):** This scale has 36 items with scoring response by 5-point Likert scale. This scale measures three dimensions namely no acceptance, goals, impulses, awareness, strategies and clarity. Cronbach's alpha coefficients for reliability were obtained in the range of 0.80 to 0.93 (Gratz & Roemer, 2004). In the present study, Cronbach's alpha subscales were obtained in the range of 0.79 to 0.90.

**Beck Depression Inventory-II (BDI-II):** This scale has 21 items with scoring response by 4-point Likert scale. In the original version, Cronbach's alpha coefficient was reported as 0.86 for psychiatric patients and a coefficient of 0.81 for normal people (Beck and et al, 1996). In the present study, Cronbach's alpha coefficients for reliability have been reported for total scale was 0.91.

## Training sessions

**Acceptance/Commitment Therapy:** For the purpose of acceptance/commitment therapy, the techniques of Hayes and et al (2016) acceptance/commitment therapy were used for this research. **Affect Regulation Training:** For the purpose of affect regulation training, the techniques of Berking and Whitley (2014) affect regulation training were used for this research.

## Results

The results showed that both interventions in post-test and follow up had a significant effect on emotional dysregulation and depression and affect regulation training is more effective in emotional dysregulation and depression. Table 1 presents the results of within-subjects and between-subjects effects analysis of variance with repeated measures.

**Table1. Results of within-subjects and between-subjects analysis of variance with repeated measures for emotional dysregulation and depression in people with epilepsy**

Dependent Variables	Source	F	Sig	Eta	Power
Total emotional dysregulation and depression	Factor	99.85	0.001	0.73	1.00
	Group	654.04	0.001	0.73	1.00
	factor × group	140.94	0.001	0.77	1.00

Dependent Variables	Source	F	Sig	Eta	Power
Depression	Factor	13.80	0.001	0.40	1.00
	Group	116.60	0.001	0.83	1.00
	factor × group	28.50	0.001	0.58	1.00

Also, results of the Bonferroni post hoc test showed that the average difference between the affect regulation training group and the control group is greater than the average difference between the acceptance/commitment therapy group and the control group, which indicates that affect regulation training is more effective in reducing emotional dysregulation and depression. Results of Bonferroni post hoc test are shown in Table 2.

**Table2. Results of the follow-up test for investigate more effective intervention**

Dependent Variables		Groups		difference in averages	Sig
Total emotional dysregulation	ART	control group		-13.69	0.001
	ACT	control group		-11.84	0.001
Depression	ART	control group		-1.88	0.001
	ACT	control group		-1.73	0.001

## Discussion and Conclusion

In explaining these results, it can be said that with affect regulation training, people learn to positively re-evaluate unpleasant events such as their epilepsy. By training coping skills, they deal with stressful events with optimism and self-confidence, see events as controllable, and generally use their information processing system in a more reliable way that all these changes increase emotion management in people with epilepsy. Also, during the affect regulation training, people learn to deal with negative emotions and thoughts in a problem-oriented way, and to use a different way to face emotions and distress; As a result, the challenge with negative spontaneous thoughts and dysfunctional cognitive processing that led to depression is reduced. Among the limitations of the study, we can pay attention to the small sample size of the study, which is considered the minimum recommended amount for conducting the study due to cost and time control, so the error rate may be high and the power of the study may be low. According to the effectiveness of the interventions, these interventions can be used as appropriate treatment methods to improve the emotional dysregulation and depression of people with epilepsy in counseling centers and the priority is to use with affect regulation training.

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### **Conflicts of interest**

Authors found no conflict of interests.



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