

The Effectiveness of Cognitive-Behavioral Therapy on Ego strength and Anxiety in people with Generalized Anxiety Disorder

1. Marzieh Orvati Aziz*, 2. Abolghasem Mehrinejad, 3. Kianoosh Hashemian, 5.

Mehrangiz Paivastegar

1. * Corresponding author, Ph.D. in Psychology, Faculty of Psychology and Educational Sciences, Alzahra University, Tehran, Iran. e-mail: m.orvatiaziz.1981@gmail.com
2. Ph.D in Clinical Psychology. Associate Professor of Faculty of Psychology and Educational Sciences, Alzahra University, Tehran, Iran. e-mail ; ab_mehrinejad@yahoo.com
3. Ph.D in personality psychology. Associate Professor of Faculty of Psychology and Educational Sciences, Alzahra University, Tehran, Iran. email: drhashemian@yahoo.com
4. Ph.D in Clinical Psychology. Associate Professor of Faculty of Psychology and Educational Sciences, Alzahra University, Tehran, Iran. e-mail ; mpaivastegar@alzahra.ac.ir

Abstract

The purpose of this study was to evaluate the effectiveness of cognitive-behavioral therapy on the ego strength and anxiety among people with generalized anxiety disorder. The research method was quasi-experimental with pretest-posttest design and control group. The statistical population of the study consisted of all individuals with generalized anxiety disorder referring to counseling centers in Hamadan during 2017 to 2018. Twenty-four of them were selected through semi-structured clinical interview and were randomly assigned into two (n=12) experimental and control groups. Data were collected from the Hamilton anxiety rating scale and psychosocial inventory of ego strengths was used in two pre and post-test stages. Multivariate analysis of covariance was used to analyze the data. The results showed cognitive behavioral therapy was effective on increasing ego strength and anxiety among people with generalized anxiety disorder.

Keywords: Anxiety, cognitive-behavioral therapy, ego, ego-strength

Introduction

Generalized anxiety disorder is a common and costly disorder with excessive and uncontrollable worry about different events. It's determined on most days (American psychiatric association, 2013). In mental disorders such as anxiety, people's psychological cohesion is threatened, research has shown ego strength by organized personality is related and helps people to achieve emotional balance and better adapt with stress (Babakhanzadeh et al. 2019). In this regard Einy et al. (2018) showed individuals who suffering from emotional injuries such as anxiety disorders, amount of mental damage and ego strength in them is different from normal people. Sobański et al. (2018) believe people who have a strong ego have better psychological and social function and they less suffer from anxiety.

Many studies have shown the effectiveness of cognitive-behavioral therapy in the treatment of anxiety disorders, the core of this treatment is based on self-help and the therapist's aim is help to the patient to be able to develop the necessary skills to solve current problems and similar problems in the future (Azizi & Ghasemi, 2017). Meta-analysis studies have shown cognitive-behavioral therapy compared to other conventional treatments is superior in reducing anxiety and

related disorders (Newby, et al. 2020). Mahoney et al (2019) showed cognitive-behavioral therapy is effective to reduce the symptoms of generalized anxiety disorder.

The aim of this study evaluation of the effectiveness of cognitive-behavioral therapy on increasing ego strength and reduce anxiety in people with generalized anxiety disorder. Accordingly, the research hypotheses are:

-Cognitive-behavioral therapy is effective in increasing the ego strength among people with generalized anxiety disorder.

- Cognitive-behavioral therapy is effective in reducing anxiety of people with generalized anxiety disorder.

Method

The research method was quasi-experimental with pretest-posttest design and control group. The statistical population of the study consisted of all individuals with generalized anxiety disorder referring to counseling centers in Hamadan during November, 2017 to 2018, that 24 of them were selected through semi-structured clinical interview and accordance with the selection and non-selection criteria and were randomly assigned into two (n = 12) groups. Participants completed Hamilton anxiety rating scale (HRSA) and psychosocial inventory of ego-strength before starting and ending treatment sessions. Inform participants about confidentiality of information were assured.

To collect information the following tools were used:

Clinical Interview for DSM Disorders (SCIDI): It's used to measure DSM-IV axis I disorders, It has two versions, research and clinician version. In Sharifi (2008), (as cited in Ghadampoor, et al, 2017) Test-retest reliability coefficient was reported 0.87.

Hamilton anxiety rating scale (HRSA): The inventory includes 14 items each defined by a series of symptoms, and measures both psychic anxiety and somatic anxiety. The correlation coefficient of with this scale of 0.75 and the test-retest reliability of 0.81 have been obtained for this inventory in an Iranian sample (Shirini, et al, 2017).

Psychosocial inventory of ego strengths (PIES): It consists of 64 items devised, in a Likert scale of 5 score from 1 to 5. Cronbach's alpha in this study was 0.84.

Findings

To test research hypotheses, covariance method was used, for this purpose, the assumptions of analysis of variance were first examined. To evaluate the assumption of homogeneity of variance, Levene's test was used and the significance level of Levene's test was equal to ($P < 0.05$); indicating the variance of the variables was homogeneous, with a confidence level of 95% and the regression slopes were homogeneous. Also the results of the Kolmogorov-Smirnov test indicating normal distribution of score of dependent variables has been observed in the post-

test stage ($P < 0.05$). In the assumption of homogeneity of regression slopes, data support the regression slope homogeneity hypothesis ($P > 0.05$).

Table 1: Descriptive statistics

Variable	Group	Pre-test		Post-test	
		Mean	Standard deviation	Mean	Standard deviation
Ego-strength	Experiment	180.78	19.80	213.25	31.00
	Control	181.00	19.74	180.21	19.56
Anxiety	Experiment	31.83	9.21	10.38	4.87
	Control	31.75	9.41	29.89	9.59

According to the results from table 2, after analyzing the covariance analysis assumptions, it indicated that affecting cognitive-behavioral therapy on ego-strength and reducing anxiety variable, the cognitive-behavioral therapy affected the ego-strength in the experimental group $F_{(1,21)} = 16.80$, ($P < 0.05$) and cognitive-behavioral therapy affected the reducing anxiety in the experimental group $F_{(1,21)} = 39.89$, ($P < 0.05$). Therefore, it can be concluded that the cognitive-behavioral therapy was effective in increasing ego-strength and reducing anxiety. Therefore, both research hypotheses are confirmed.

Table 2: Analysis of covariance to assess the effect of cognitive-behavioral therapy on ego-strength and reducing anxiety

Source	Source of changes	Sum of Squares	Mean Square	F	Sig	Partial Eta Squared
Ego-strength	Group	5326.27	16.80	0.001	1.00	0.44
Anxiety	Group	2185.04	39.89	0.001	1.00	0.64

Conclusion and discussion

The results of the study indicate the efficacy of cognitive-behavioral therapy on ego-strength and reducing anxiety in people with generalized anxiety disorder. Which is consistent with the results of Selvapandiyan (2019), Newby and McElroy (2020). To explain this result, it can be stated anxiety reduces ego management power and ego strength, by reducing the ego strength, ego functions become weaker and anxiety increases. Cognitive behavioral therapists train clients to identify their anxious thoughts and correct them with correcting irrational beliefs anxiety reduced. By reducing anxiety the amount of mental energy that ego used to spend controlling anxiety, it's spent on other aspects of personality and personality development.

One of the limitations of this research, inability to follow the effects of treatment in the long run. So recommended, cognitive-behavioral therapy as a beneficial intervention to promote the ego strength and reduce people's anxiety be considered in counseling centers.

Acknowledgment

We sincerely thank all the participants who helped us in this research.

References

- American Psychiatric Association. (2013). Cautionary statement for forensic use of DSM-5. In Diagnostic and statistical manual of mental disorders (5th ed.) Washington, DC: Author. [http://dx.doi.org/10.1176.appi.books.9780890425596](http://dx.doi.org/10.1176/appi.books.9780890425596) .Cautionary Statment
- Azizi, A., Ghasemi, S. (2017). Comparison the effectiveness of solution-focused therapy, cognitive-behavior therapy and acceptance and commitment therapy on depression and quality of life in divorced women. *Counseling Culture and Psychotherapy*, 8(29), 207-236.doi: 10.22054.qccpc.2017.18777.1443.(Text in Persian)
- Babakhanzadeh, s., Ahteshamzadeh, P., Eftekharsaadi, Z., bakhtiyarpor, s., & Alipor, A. (2019). The effectiveness of metacognitive therapy with emphasis for brain executive functions on cognitive-attentional syndrome and sense of coherence in anxious persons. *Counseling Culture and Psychotherapy*, 10(38), 195-220. doi:10.22054.qccpc.2019.40298.2080
- Einy, S., Basharpour, S., Atadokht, A., Narimani, M., & Sadeghi Movahhed, F. (2018). Effectiveness of cognitive-analytical therapy on ego-strength and object relations of persons with borderline personality disorder. *The Journal of Urmia University of Medical Sciences*, 29(1), 1-11. (Text in Persian)
- Ghadampour, E., Radmehr, P., Yousefvand, L. (2017). Effectiveness of Mindfulness- based Cognitive Therapy on Cognitive-Behavioral Avoidance and Mental Rumination in Comorbidity of Social Anxiety and Depression Patients, *Quarterly of Horizon of Medical Sciences*, 23(2), 141-14. (Text in Persian)
- Mahoney, A. E., Hobbs, M. J., Newby, J. M., Williams, A. D., Sunderland, M., & Andrews, G. (2016). The Worry Behaviors Inventory: Assessing the behavioral avoidance associated with generalized anxiety disorder. *Journal of Affective Disorders*, 203, 256-264. DOI: 10.1016/j.jad.2016.06.020.
- Newby, J. M., & McElroy, E. (2020). The impact of internet-delivered cognitive behavioral therapy for health anxiety on cyberchondria. *Journal of anxiety disorders*, 69, 102150. Doi: 10.1016/j.janxdis.
- Shirini, A., Arsham, S., Yaali, R. (2017). The Relationship between Fear of Falling, Anxiety, Functional Mobility and Balance in Nursing-Home Older Adults, *Motor Behavior*, 9(29), 135-148(Text in Persian)
- Selvapandiyan, J.(2019). Status of cognitive behavior therapy in India: Pitfalls, limitations and future directions –A systematic review and critical analysis. *Asian journal of psychiatry*, 41, 1-4 <https://doi.org/10.1016/j.ajp.2019.02.012>.
- Sobański, J. A., Klasa, K., Müldner-Nieckowski, Ł., Dembińska, E., Smiatek-Mazgaj, B., & Rodziński, P. (2018). Changes in ego strength in patients with neurotic and personality disorders treated with a short-term comprehensive psychodynamic psychotherapy. *Psychiatry Pol*, 52(1), 115-27.

Compliance with Ethical Standards

The authors declare that they have no conflict of interest in this study. It is also notable that no funding was received.

Ethical Permissions

The researchers followed all the ethical codes related to human cases and obtained necessary permissions from the competent authorities.