

## The Effect of Autobiographical Memory Specificity Training on Experiential Avoidance and Distress Tolerance in Imprisoned Men Suffering from Major Depressive Disorder

1. Reza Asgari, 2. Shahnaz Khaleghipour\*

1. MSc, Department of clinical Psychology, Naein Branch, Islamic Azad University, Naein, Iran. Rezaasgari1371@gmail.com
2. Corresponding Author: Associate Professor, Department of Psychology, School of Psychology, Naein Branch, Islamic Azad University, Naein, Iran. khaleghipour@naeiniau.ac.ir

### Abstract

The present study aimed to investigate the effectiveness of autobiographical memory specificity training on experiential avoidance and distress Tolerance in prisoners suffering from major depressive disorder. The method was semi experimental study. Thirty subjects were chosen by available sampling which consisted of all imprisoned men suffering from major depressive disorder. Participants were divided randomly into two groups. The experimental group received autobiographical memory training in 7 sessions of 90 minutes. Acceptance, action questionnaire and distress tolerance scale were used in 3 stages. Data were analyzed using repeated measurements ANOVA. Results showed that there were significant differences in mean scores on experiential avoidance, distress tolerance and this effect was stable until the follow-up stage, a month later. By the obtained result, it can be claimed that autobiographical memory training has an effect on avoidance and distress tolerance in imprisoned men suffering from major depressive disorder.

**Keywords:** Autobiographical memory, distress tolerance, experiential avoidance, major depressive disorder, penitentiary.

### Introduction

One of the cognitive mechanisms in people with depression that has been identified as a therapeutic goal is autobiographical memory (Harris, et al.,2019). According to Bradley, et al, a model of memory consistent with mood, memory can be biased by the existing mood, leading to the onset or persistence of an emotional disorder. Clark, et al, suggest that memory is hierarchically organized. The lower layers contain general information that can act as an index relative to the lower layers, which are more specific and detailed. Depressed people are unable to benefit from general descriptions to help retrieve specific examples. One of the mechanisms involved in more generalized narrative memory is avoidance. Experiential avoidance is a structure that includes suppression of thought and emotion, avoidance and re-evaluation (Hershenberg, et al.,2017). In Williams et al model, hyper-holistic memory acts as an avoidance strategy against recalling disturbing events. Which it is harmful in the long run. The root of depression is in looking negatively at oneself and avoiding internal and external experiences. experiential avoidance is accompanied by unacceptable distress, denial, and repression in the

form of distancing oneself from distress (Boullion, et al.,2015). In emotional distress, the person is unable to fully master the experience of disturbing emotion and fails to maintain psychological and physiological balance for adaptive and coping processes (Spinhoven, et al., 2014). Bernstein et al suggest that distress tolerance may affect a number of self-regulatory processes, including attention, cognitive assessments of distressing emotional or physical states (Forouzanfar, 2018). patients with depression have less specific memories and more categorical memories. Other studies have shown that specific memory training is effective for depression and improving the quality of life (Erten, et al., 2018). Therefore, in order to prevent depression-induced injuries in prisoners, this study was conducted to determine the effectiveness of autobiographical memory specificity on experiential avoidance and distress tolerance in imprisoned men suffering from major depressive disorder.

## Method

This study was a quasi-experimental design. The statistical population consisted of men with depression in the first six months of 2018. By available sampling, 30 people who met the criteria for diagnosing depressive disorder were selected and randomly assigned for both control and experimental groups. Inclusion criteria were diagnosis of major depressive disorder, no other psychiatric disorder, age range 30-45, Conscious consent. Criteria for non-entry were mental and physical disability, having a history of more than one time in the penitentiary, having high-risk behaviors and intentional crimes.

### Research tools

**Beck Depression Inventory- II:** This scale was developed by Beck et al. (1996). This scale contains 21 items. Cronbach's alpha coefficient of this scale by Beck et al. was 0.73 to 0.92 and convergent validity being 0.69.

**Acceptance and Practice Questionnaire-II:** This questionnaire was developed by Bond et al. (2011). It is a 7-item questionnaire that measures behavioral avoidance. A high score indicates more avoidance. Cronbach's alpha coefficient of the questionnaire was reported to be 0.84.

**Emotional Distress Tolerance Scale:** This questionnaire was developed by Simon& Gaher (2005) It is an 11-item questionnaire. Scale reliability was obtained using Cronbach's alpha method 0.93 and convergent validity was 0.79, (Asgari, et al., 2018)

## Results

Demographic findings show that age the experimental group was  $36.87 \pm 2.07$  and in the control group was  $39.73 \pm 2.57$ . Table 1 presents descriptive statistics of experiential avoidance and distress tolerance scores.

Table 1: Descriptive statistics of experiential avoidance and distress tolerance

		Before		After		Follow-up		Levene's test	Shapiro-Wilk test
		Mean	SD	Mean	SD	Mean	SD		
Experiential Avoidance	Experimental	21.61	1.13	22.53	1.10	31.27	1.05	0.42	0.91
	Control	31.50	1.69	31.84	1.27	30.91	1.25	0.48	0.78
Distress Tolerance	Experimental	41.32	5.44	40.21	5.06	29.54	5.18	0.71	0.61
	Control	31.70	6.40	31.42	5.39	30.94	5.32	0.74	0.72

The results of Levens test showed that significance level obtained for both groups in the dependent variable is greater than 0.05. The results of Shapiro-Wilk test showed that the condition of normal distribution of scores was observed in the post-test stage.

Table 2: Findings related to analysis of variance with repeated measures

		Sum of squares	df	F	P-value	Eta2
Experiential Avoidance	Time	389.775	1	25.59	0.001	0.48
	Time*group	427.176	1	17.08	0.001	0.29
Distress Tolerance	Time	683.138	1	39.37	0.001	0.41
	Time*group	470.130	1	15.90	0.001	0.34

According to the results of Table 2 effect of the independent variable on the experiential avoidance and distress tolerance of the experimental group is significant and this effect was stable in the follow-up.

## Discussion and conclusion

Depressed person during information retrieval at a more holistic level by avoiding unpleasant thoughts, limits the strategies needed to retrieve memories and engages in mental rumination and

less tolerance for accepting emotional experiences, and maladaptive distress arises, As Williams et al has confirmed link between rumination and retrieval of memories in general from biographical memory. Dedicated retrieval of autobiographical memory improves the executive function and exclusive memories and suppressed events should be observed with more attention and vigilance and search for information in the lower and deeper layer memory. Thus, with a special reminder of painful memories and a change in retrieval style from hyper-oriented to specific to memories, the role of visualization and illustration is activated. Acceptance of emotional experiences increases and facilitated preparation for disturbing experiences and imprisoned men suffering from major depressive disorder adapts to the distress and subsequently expands the tolerance of distress.

This study has faced limitations, given that the study population was men imprisoned suffering from major depressive disorder for less than 3 years, in addition, the effects of the treatment were not compared with other treatments. It is suggested that present treatment be compared with other treatments on imprisoned women. Therefore, it is suggested that specific treatment of autobiographical memory be considered as an effective intervention in reducing the avoidance and improving the tolerance of distress in imprisoned men.

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## Conflicts of interest

The authors did not declare conflict of interest.

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