

Effectiveness of Eye Movement Desensitization and Reprocessing Therapy on Public Speaking Anxiety of University Students

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Article information	Abstract
Article history: Received: 23 June 2013 Accepted: 17 July 2013 Available online: 1 Oct 2013 ZJRMS 2014 Oct; 16(Suppl 1): 46-49 Keywords: Eye movement Anxiety Students *Corresponding author at: Department of Psychology, Faculty of Psychology, Allameh Tabataba'i University, Tehran, Iran. E-mail: jalil.aslani@gmail.com	Background: Public speaking anxiety is a prominent problem in the college student population. The purpose of this study was to determine the effectiveness of eye movement desensitization and reprocessing on public speaking anxiety of college students. Materials and Methods: The design of research was quasi-experimental with pre-post test type, and control group. The sample consisted of 30 students with speech anxiety that selected based on available sampling and assigned randomly in experimental (N=15) and control (N=15) groups. The experimental group was treated with EMDR therapy for 7 sessions. In order to collect the data, Paul's personal report of confidence as a speaker, S-R inventory of anxiousness was used. To analyze the data, SPSS-19 software and covariance analysis were used. Results: The multivariate analysis of covariance showed that the eye movement desensitization and reprocessing reducing public speaking anxiety. The one-way analysis of covariance for each variable shows there are significant differences in confidence of speaker ($p=0.001$) and physiological symptoms of speech anxiety ($p=0.001$) at the two groups. Conclusion: These results suggest that treatment of eye movement desensitization and reprocessing is effective on reducing physiological symptoms of speech anxiety and increasing the speaker's confidence. Copyright © 2014 Zahedan University of Medical Sciences. All rights reserved.

Introduction

Public speaking anxiety is a specific type of communication-based anxiety whereby individuals experience arousal (increased heart rate), negative self-talk (I'm concerned I'll look like an idiot), and/or behavioral reactions (shaking) in response to an upcoming or actual presentation [1]. Several studies have pointed to public speaking as the most common fear by American people [2]. In fact, it has been reported that approximately 85% of the population experiences some level of anxiety about public speaking [3].

Increased levels of public speaking anxiety can result in poor speech preparation and affect performance negatively. This disorder is associated with lower incomes, higher rates of unemployment, and reduced likelihood of postsecondary education compared to the general population; samples also tend to report distress or interference with work, education, or social life as a result of substantial public speaking fears [4]. Bodie [5] argues that "competence in public speaking is paramount to student success in and out of the classroom" as public speaking is a "necessary part of both college and work responsibilities". The high prevalence of lecture anxiety among college students, on the one hand, reduces the student's educational opportunities like oral evaluation, classroom discussion and conference presentation. On the other, this anxiety acts for students as mental health

threatening. This problem prompted researchers to use the new methods of psychotherapy for reduce public speaking anxiety. Current research suggests three techniques to reduce public speaking anxiety. First, systematic desensitization involves relaxation, deep breathing, and visualization [6]. Second, cognitive restructuring requires participants to create a negative self-talk list, identify irrational beliefs embedded in each thought, develop a coping statement for each irrational belief, and practice the coping statements until they become second nature [7]. The third technique, skills training, refers to learning and practicing techniques targeted toward improving individual speaking behaviors [6].

Eye movement desensitization and reprocessing (EMDR) technique include the desensitization and cognitive restructuring that research suggests for reduce lecture anxiety. Approximately 20 controlled studies have validated the efficacy of EMDR therapy in the treatment of post traumatic stress disorder (PTSD), while numerous studies and case reports indicate EMDR's effectiveness wide range of disorders, including phobias, panic disorder, generalized anxiety disorder, conduct problems and self-esteem, sexual dysfunction, performance anxiety, chronic a pain, and migraine headaches [8].

EMDR is an integrative psychotherapeutic approach with procedural elements compatible with most

orientations [9]. The therapy is guided by the adaptive information processing (AIP) model that emphasizes the role of the brain's information processing system in the development of human health and pathology. EMDR is an eight-phase treatment, including a tripartite protocol that focuses on: 1- the memories underlying current problems; 2- present situations and triggers that must be specifically addressed to bring the client to a robust state of psychological health; 3- the integration of positive memory templates future adaptive behavior. One of the distinguishing characteristics of EMDR is its use of bilateral stimulation, such as side-to-side eye movements, alternating hand taps, or alternating auditory tones that are employed within standardized procedures and protocols to address all facets of the targeted memory network [8].

EMDR has been recognized for its effectiveness in the treatment of wide range of disorders in the international literature. Therefore, it may offer an effective and pertinent form of therapy for the treatment of public speaking anxiety. The main objective of the present study is to investigate the effectiveness of eye movement desensitization and reprocessing on public speaking anxiety in college students.

Materials and Methods

The design of research was quasi-experimental with pre-post test type, and control group. The statistical populations were 65 female students candidate (with an age range of 19-25 years) with public speaking anxiety at a department of psychology in the Allameh Tabatabaiee university who were diagnosed as speech anxious based on personal report of confidence as a speaker and S-R inventory. Eventually, 30 subjects of this college students were selected base on available sampling and assigned randomly in experimental (N=15) and control (N=15) groups. Treatment was administered to the experimental group in 7 individual sessions that each session was 90 minutes, but no treatment was administered to the control group. In this method, the experimental group imagined a situation similar to trauma (like watching a horrible car accident) and followed lateral movements of the therapist's finger by their eyes. This process continued for one minute or more or until the patient expressed that the annoyance of image has been reduced. When the patient was in a state of deep relaxation, he was able to cognitively restructure the traumatic event and thereby relieves his symptoms. Then, the therapist asked the patient to tell all the negative thoughts in his mind and again he was encouraged to think about the positive thoughts such as "I can handle this issue", while he

followed the movement of therapist's finger; and this thought remains in his mind as long as he was following the finger movement of therapist. At the end of treatment, both groups completed the questionnaires again.

Data gathering tools: 1- personal report of confidence as a speaker: The PRCS is a 30-item self-report scale, which assesses both behavioral and affective responses to public speaking situations? The questions are answered in a true-false format, and the scores range from 0 (no fear of public speaking) to 30 (highest level of fear). Fifteen of the 30 items are reversed scored (items 1, 4, 6, 9-12, 14, 16, 17, 21-23, 27, and 30). The internal consistency for the PRCS in the current sample was 0.91 [10].

2- Stimulus-Response inventory: this questionnaire consisted of 15 multiple choices from 1-5, was used to measure self-reported anxiety. Four of the 15 items are reversed scored (items 4, 8, 12 and 15). The score ranges from 0 to 72. The reliability of this test was obtained at 0.77 in present study using Cronbach's alpha [11].

Analysis of data obtained was performed using SPSS-19 software. Data analysis was both descriptive and inferential. Descriptive level indicators such as mean and standard deviation were used. Inferential level research hypotheses were tested by analysis of multivariable covariance.

Results

The mean and standard deviation of dependent variables has been shown in table 1 at pre-test and post-test for both experimental and control groups. In order to use the covariance, were investigated the assumption of homogeneity of covariance matrices using Box's test. The results showed that the covariance of the dependent variable at two groups are equal and do not differ significantly ($p=0.07$). Assumption of homogeneity of variances was tested by Leven's test that results showed there is no significant difference for confidence of speaker ($p=0.06$) and S-R inventory. Therefore, the use of MANCOVA is permitted.

The analysis on data indicates that EMDR therapy has a significant impact on speech anxiety. Wilk's lambda 0.19 and partial eta squared 0.81 obtained. The Wilk's lambda value if closer to 1, it means that differences were not significant. Eta value if was greater than 0.14, represents the effect size is large. The one-way analysis of covariance in table 2 shows there are significant differences in confidence of speaker ($p=0.001$) and physiological symptoms of speech anxiety ($p=0.001$) at the two groups.

Table 1. Mean and standard deviation of experimental and control group in pre and post test

Groups	Experimental Group		Control Group	
	Pre (Mean±SD)	Post (Mean±SD)	Pre (Mean±SD)	Post (Mean±SD)
Confidence of speaker	18.73±1.41	11.40±1.59	15.80±1.28	15.66±1.42
S-R inventory	38.60±2.27	28.60±2.22	36.22±2.57	38.18±2.30

Table 2. The one-way analysis of covariance for each dependent variables

Variable	SS	Df	MS	F	p-Value	Eta
Confidence of speaker	96.10	1	96.10	20.99	0.001	0.49
Physiological symptoms	562.38	1	562.38	37.21	0.001	0.64

Discussion

This study is conducted with the aim of examining the influence of eye movement desensitization and reprocessing therapy on the public speaking anxiety of college students. The results indicated that the EMDR therapy is effective on reducing physiological symptoms of speech anxiety and increasing the speaker's confidence.

This result is in line with other researches. The numerous studies and case reports indicate EMDR's effectiveness with a wide range of anxiety disorders, including phobias and performance anxiety [8, 12-16].

Because the anxiety of speaking is known as loss of opportunities, these results are more important. The treatment effect can be attributed to EMDR mechanisms. Several mechanisms of action may be interacting to achieve the therapeutic effects. One such mechanism include the Cognitive restructuring is a procedural element that may contribute to EMDR's effectiveness. Other mechanisms of action are inherent in the desensitization and installation phases. One possible mechanism of action may be mindfulness. During the desensitization phase of EMDR, clients are instructed to "let whatever happens, happen" and to "just notice" what is coming up [9]. This is consistent with principles of mindfulness [12]. However, where meditation techniques generally ask the participant to return to the original focus, EMDR therapy clients are asked to simply "notice" the various associations as they arise [13].

Randomized studies have found that eye movements enhanced retrieval of episodic memories [17], increased attentional flexibility [18, 19] and increased recognition of true information [20-24]. Eye movements decrease vividness and/or emotionality of memories and imagery of anticipated fears [25-29]. EMDR therapy is able to achieve its therapeutic impact with less exposure to the

trauma and with only in session treatment. This fact makes it a more user friendly, better tolerated therapy for both clients and therapists [30, 31], as well as able to achieve positive treatment effects utilizing consecutive day treatment [32].

In sum, EMDR is an integrative form of psychotherapy that incorporates elements compatible with diverse orientations. It has given the body a central place in therapy, while keeping cognitive, emotional and behavioral aspects in their important positions. Thus, it is integrating approaches that have focused on different aspects of public speaking anxiety [33, 34].

The main limitation of this study was related to the time which was led to stoppage in doing necessary follow-up and the evaluation of the stability of results in a standard 6-month follow-up period was not possible. The findings apply only to female students who meet inclusion criteria and cannot be generalized to those different from the subjects of this study as far as the demographic characteristics. Eventually, the same person is therapist and evaluator that may have affected the results of measurement instruments.

Acknowledgements

This article is the outcome of Jalil Aslani MSc thesis, No: 2197 that was sponsored by the University of Allameh Tabataba'i.

Authors' Contributions

All authors had equal role in design, work, statistical analysis and manuscript writing.

Conflict of Interest

The authors declare no conflict of interest.

Funding/Support

Allameh Tabataba'i University.

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Please cite this article as: Aslani J, Miratashi M, Aslani L. Effectiveness of eye movement desensitization and reprocessing therapy on public speaking anxiety of university students. *Zahedan J Res Med Sci*. 2014; 16(Suppl 1): 46-49.