

*Research paper*

## **The Effectiveness of Cognitive-Behavioral Analysis (CBASP) Psychotherapy System on Attentional Bias in Adolescent Students with Symptoms of Social Anxiety**

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### **Abstract**

The research design was a quasi-experimental pretest-posttest with a control group. The statistical population of the study included all female students with social anxiety in the first high school of Khorramabad in the academic year 2019-2020. The sample size consisted of 30 people who were selected by simple random sampling. Participants in both groups completed the Attention Bias Questionnaire as a pre-test. Then, the cognitive-behavioral analysis psychotherapy system was performed for 11 sessions of 70 minutes for the experimental group. Multivariate and univariate analysis of covariance were used to analyze the data. The results showed that the cognitive-behavioral analysis psychotherapy system was significantly effective on the attention orientation of adolescents with symptoms of social anxiety. It is recommended that counselors and psychotherapists use this treatment to improve the symptoms of adolescent social anxiety.

**Keywords** :Attention bias, cognitive-behavioral analysis psychotherapy system, social anxiety

### **Introduction**

Social anxiety is one of the factors that disrupts personal and social functioning of adolescents in various fields (Mousavi & Haghayegh, 2019). The highest age of prevalence of social anxiety is in adolescence. An important aspect of anxiety excitement is the effect it has on selectivity. Attention bias is the clear and rapid focusing of mental processes on an object from several objects or chains of thought that are simultaneously available to the individual (Amit, et al., 2019). Attention to emotional content may be in the form of returning attention to a new emotional stimulus, maintaining attention to a stimulus, or diverting attention from it (Amit, et al., 2019). There are several types of psychological therapies for social anxiety disorder, the most common of which are cognitive-behavioral therapies. Analytical cognitive-behavioral psychotherapy was developed by McCullough, et al. (2015). This model combines interpersonal therapy with cognitive-behavioral therapy. In this treatment, patients learn how to create and perpetuate behavioral and cognitive patterns, interpersonal problems, and maladaptive patterns of interpersonal behavior (Portman, 2016). Wang, Chen, Poon & Teng (2018) concluded in a study that analytical cognitive-behavioral psychotherapy reduced depression, anxiety, and increased social adjustment and coping skills in the experimental group.

**Method**

The research design was a quasi-experimental pretest-posttest with a control group. The statistical population of the study included all female students with social anxiety in the first secondary school of Khorramabad in the academic year 2019-2020. The sample size consisted of 30 people who were selected by simple random sampling

**Tools**

**Connor, Davidson, Churchill, Sherweed & Foa of Social Anxiety Scale (2000):** This is a 17-item self-assessment scale. The test-retest reliability method in groups with a diagnosis of social phobia were 0.78 to 0.89. The internal consistency of the total score for the group of normal individuals was 0.94 (Connor, et al., 2003).

**Woody, Chamels, and Glass Attention Questionnaire (1997):** This scale has two subscales. The authors of the questionnaire reported Cronbach's alpha coefficient for subscales of 0.75 and 0.86, respectively. Also, they examined and confirmed the construct validity of this questionnaire by factor analysis.

**Results**

The mean scores of inward attention and outward attention for the experimental group in the pre-test stage are 15.80 and 10.46, respectively, and in the post-test, stage are 12.09 and 15.53. These values for the control group in the pre-test stage are equal to 16.02 and 10.03, respectively, and in the post-test, stage are equal to 15.87 and 11.09. In the experimental group, in the post-test compared to the pre-test, the score of inward attention decreased and the score of outward attention increased. Using covariance analysis as a parametric test requires some statistical assumptions. These assumptions included: random sampling, normality of variances, linearity, homogeneity of variances and homogeneity of regression slopes were examined. The results showed that all assumptions are valid, therefore, the use of analysis of covariance is unobstructed. According to Table 1, the results of multivariate analysis of covariance showed that after eliminating the effect of the self-focused and pre-focused attention test, there was a significant difference between the experimental and control groups. The squared value of group membership was 0.73, which is significant at the level of 0.001 and shows that the effectiveness of the intervention on attention bias are significant. Therefore, analytical cognitive-behavioral psychotherapy has a 73% effect on the experimental group's attention bias in the post-test phase. Statistical power equal to 0.99 is obtained which indicates the adequacy of the sample size for this analysis.

**Table 1: Results of multivariate analysis of covariance of post-test scores of attention bias dimensions**

<b>Variables</b>	<b>Pillais Trace</b>	<b>Wilks Lambda</b>	<b>DF Error</b>	<b>DF Hypothesis</b>	<b>F</b>	<b>Sig. Level</b>	<b>Effect size</b>	<b>Statistica l power</b>
<b>Self-focused attention test</b>	0.76	0.23	22	6	9.24	0.001	0.76	0.89
<b>External focused attention test</b>	0.87	0.12	22	6	20.09	0.001	0.87	0.99
<b>Group membership</b>	0.73	0.26	22	6	7.81	0.001	0.73	0.99

According to Table 2, the results of univariate analysis of covariance showed that after removing the effect of the pretest, which is considered as a control variable for outward-focused attention and self-focused attention, between the mean of out-focused attention and There is a significant difference in focusing on the participants of the experimental and control groups. The squared value of group membership for the variables of outward focused and self-focused attention was 0.43 and 0.24, respectively, which is significant at the level of 0.001 and 0.006 and indicates the effects of the intervention. It focuses on the outside and focuses on the self. Thus, analytical cognitive-behavioral psychotherapy resulted in a 43% increase in outward focused attention and a 24% decrease in self - focused attention in the post-test phase. The statistical power is 0.99 and 0.81, respectively, which indicates the adequacy of the sample size for this analysis

**Table 2: Results of univariate analysis of covariance of post-test scores of outward-focused attention and self-focused attention**

<b>Variables</b>	<b>Total squares</b>	<b>DF</b>	<b>Average squares</b>	<b>F</b>	<b>Significance level</b>	<b>Effect size</b>	<b>Statistical power</b>
<b>External focused attention test</b>	101.56	1	101.56	6.94	0.014	0.20	0.71
<b>Group membership</b>	297.92	1	297.92	20.35	0.001	0.43	0.99
<b>Error</b>	395.10	1	395.10	-	-	-	-
<b>Self-focused attention test</b>	30.20	1	30.20	5.72	0.024	0.17	0.63
<b>Group membership</b>	46.85	1	46.85	8.87	0.006	0.24	0.81
<b>Error</b>	142.46	1	142.46	-	-	-	-

**Conclusion**

The results of the present study showed that analytical cognitive-behavioral psychotherapy has an effect on the dimensions of attention orientation of female adolescents with symptoms of social anxiety. By selecting participants from the junior high school girl’s community, the variables of gender and educational background have been controlled; therefore, the findings of this study may not be generalizable to the community of boys with social anxiety and other levels of education. It is suggested that future research in this area be done by considering the gender factor so that the results can be generalized with more confidence. It is recommended that screening tests be performed at the school level every year to assess the mental health status of adolescents, to identify those who need intervention in the areas of mental health and with the help of relevant organizations and the cooperation of families, to prevent serious psychological injuries.

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### **Conflicts of interest**

There is no conflict of interest for the authors of the article.



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