Comparison Effectiveness of Cognitive - Behavioral Therapy and MetaCognitive Therapy on Improvement of Body-Image among University Students with Social Phobia

Mohamad Narimani[1], Naser Sobhi Gharamaleki[1], Zahra Lak*[2], Ameneh Moazedian[3], Parisa Rahmani[2], Mahboobeh Sabet Imani[4]

[1.] *Professor of Psychology, Department of Psychology, Faculty of Educational Sciences and Psychology Mohaghegh Ardabili University, Ardabil, Iran*
[2.] *Ph.D student in Psychology. University of Mohaghegh Ardabili.*
[3.] *Ph.D of Educational Psychology, Department of Psychology, Islamic Azad University, Roudehen Branch, Roudehen, Iran*
[4.] *Department of Educational Psychology, Technical Vocational University, Neyshabur, Iran*

*Corresponding author's e-mail: Nazaninezahra@gmail.com

ABSTRACT: The purpose of this study was to investigate Comparison the Effectiveness of Cognitive – Behavioural Therapy and Metacognitive Therapy on improvement of Body-Image among university students with social phobia. The design of the study is Experimental with pre-test -post-test and control group. The population of the study were all the Shahed university Students With social Phobia that referred by the statement that was published in the University and scored the most points in social phobia test. Students were allocated in to experimental group (N=16) and control group (N=16). The Therapy was administrated in 10 weekly sessions on the experimental group while there was no psychological treatment for the control group. Social Phobia Questionnaire (SPIN) and Multidimensional Body–Self Relations Questionnaire (MBSRQ) were completed by both groups before and after program. The data was analyzed using Covariance. There were no significant differences between 3 groups before intervention. There were no significant differences in social phobia and Body-Image between 3 groups before intervention. Results of this study demonstrated that Cognitive –Behavioural Therapy and Metacognitive Therapy led to significant decrease in Social Phobia (P<0.01) and improvement of Body-Image (P<0.01) in experimental group and Metacognitive Therapy was sharpen ratio CBT.Regarding to effectiveness of cognitive-behavioural Therapy and Metacognitive Therapy on Body-Image and social phobia, it may also be used as a supplement method enhancing Body-Image and decreasing Social Phobia among University Students.

Keywords: Cognitive-Behavioural Therapy and Metacognitive Therapy, Social Phobia, Body-Image.

INTRODUCTION

Anxiety disorders are the third most common mental disorders. In the past decades, various studies have been conducted on the anxiety of university students. Results of these studies have indicated that school anxiety leads to problems in the next stages of life [1]. It not only leads to personal distress, but also leaves a negative effect on job performance and daily lives of students (Firth Cozens). Moreover, the social phobia disorder is directly caused by negative body image, vice versa. In fact, people with social phobia disorder are vulnerable to negative evaluations. This leads to their discontent of their body image and challenges the sufferer in the two following ways: 1) is my value affected by my appearance? 2) Is my appearance unacceptable? According to Cash et al. [2] and Freda and Gamze [3] continuation of this distress causes social anxiety. Pope et al. [4] stated that one of the most important aspects of identity and self-esteem is body image. Therefore, it can be concluded that people suffering from social phobia disorder are afraid of negative evaluations. Moreover, since they have bad feelings toward their bodies, their social communications are blocked and they will be afraid of crowds.

Among psychological approaches to the treatment of social phobia disorder, the efficiency of the CBT (Cognitive Behavioral Therapy) method is approved. CBT is useful for the individual or collective treatment of social phobia disorder because the objective of this method is to change thought patterns and physical reactions of the person to anxiety-inducing situations. Review of previous research indicates that CBT is useful for reducing social phobia. Some of these studies include the ones by Qasemzadeh [5], Foa [6], Wells et al. [7] and Liebowitz [8].

Another new approach to the treatment of anxiety disorders is the metacognitive model, which emerged to address the deficits of the CBT method. According to Wells [7], cognitive treatment tries to work on the origin of thoughts containment considering that in anxiety disorders negative thoughts are the results of inefficient beliefs. However, no attempt is made to understand the formation of thoughts or the mechanism that highlights the inefficient thoughts.

Several studies have been conducted on the effectiveness of Wells' metacognitive model for the obsessive-compulsive disorder (OCD), general anxiety disorder, and Post Traumatic Stress Disorder.

Studies have been carried out in Iran to measure the effectiveness of this model for the Body Dysmorphic Disorder (BDD) and bipolar patients [9].

Accordingly, the objective of the present study is to draw a comparison between effectiveness of CBT and the metacognitive model in reducing social phobia disorder and enhancing body image.

MATERIAL AND METHODS

Clinical trial was carried out with pre and post tests and a control group.

Research Population
The research population included all of the students in the master plan of the Shahed University.

Sample and Sampling Method
To this end, 48 samples were selected using the random sampling method. Participants that were selected randomly completed the SPIN social phobia disorder and Cash's body image evaluation questionnaire. Following the statistical analyses, people with higher levels of social phobia and more negative body images were selected. Each participant was assigned with a number from 1 to 48 and they were randomly classified into two experiment groups (cognitive behavioral therapy and metacognitive model) and one control group. The groups included 16 participants. All of the three groups completed Cash's body image evaluation questionnaire and social phobia inventory. Treatment programs were implemented in 16 weekly sessions on the experiment group. Meanwhile the control group was waiting.

Research Scales
-Social Phobia Inventory (SPIN): In order to recognize social phobia the 17-item SPIN questionnaire was used. This scale was developed by Cannor to assess social anxiety. It is a 17-item scale with three subscales: 1) fear (6 items), 2) avoidance (7 items), 3) Physiologic distress (4 items). Each item or question is ranked based on the 5-point Likert scale from 0 to 4.

Reliability of the inventory was measured using the re-test method. It was 0.78-0.89 for the group diagnosed with social phobia. The internal consistency with Alpha's coefficient was 0.94 for a group of normal participants. It was equal to 0.89 and 0.91 for the fear and avoidance subscales and it was equal to 0.8 for the physiological distress subscale [9].

In 2007, Hasanvand Amuzadeh measured the reliability and validity of the scale in non-clinical trial carried out in Iran. The Alpha coefficient for the questionnaire was equal to 0.82 for the first half and was equal to 0.76 for the second half of the test. In addition, correlation coefficient for both halves was 0.84 and the Spearman-Brown index was 0.91. Moreover, the Cronbach's Alpha coefficient for the entire test was also calculated. It was 0.75 for the social phobia scale, 0.74 for the fear scale, and 0.75 for the distress scale. Hence, the resulting reliability is satisfactory.

-The Multidimensional Body-Self Relations Questionnaire (MBSRQ): It is a self-assessment 46-item scale which developed by Cash, Winstead and Janda in 1986 and 1987 to assess body image (quoted from Ganji, 2005). The final form prepared by Cash in 1997 was used in this research.

This scale has the following 6 subscales: 1)Appearance Evaluation (AE); 2) Appearance Orientation (AO); 3) Fitness Evaluation (FE); 4) Fitness Orientation (FO); 5) Subjective Weight (SW); 6) Body Areas Satisfaction (BAS).

Audience of the questionnaire was asked to express their agreement with each statement by ranking each item from 1 to 5 based on the 5-point Likert scale. In a study by Rahat, the correlation between body image and self-esteem in university samples was obtained to be 0.55 and the total Cronbach was also obtained at P<0.001.

RESULTS

Descriptive statistics of research variables by group. According to Table (1), there is no significant difference between the mean scores of social phobia obtained by the three groups in the pre-test stage. However, in the post-test stage, the mean scores of experiment groups are changed compared to the pre-test group but no evident change is seen in the control group. Comparison of eta squares and mean scores of the three groups it is concluded that metacognitive treatment improves the conditions more than the CBT method.

Table (2) shows that CBT is useful for improving body image and reducing social phobia in the post-test stage ($P \leq 0.01$). In addition, 82 and 97% of the total variations of post-test body image and social phobia scores are explained by group variables (experiment, control) and control of pre-test scores.

Table (3) shows metacognitive treatment contributes to the improvement of body image and reduction in social phobia in the post-test stage ($P \leq 0.01$). In addition, it indicates that the total variation of post-test overall body image and social phobia scores are 0.86 and 0.98% for the two groups (experiment and control) and control of pre-test scores.

Table 1. Balanced mean and standard deviation of scores of body image, and social phobia and their dimensions in the control and experiments group 1 and 2.

Variable		Stage	Group					
			Control		Experiment (cognitive behavioral therapy) and (metacognitive model)			
			M	SD	M	SD	M	SD
Body image questionnaire	Appearance evaluation	Pre-test	19.31	1.85	20	1.91	19	1.32
		Posttest	19.12	1.62	24.10	2.11	25.10	2.21
	Appearance orientation	Pre-test	41.50	2.53	41.20	2.03	40.20	2.85
		Post-test	39.43	3.09	42.66	2.25	44.16	2.25
	Fitness Evaluation	Pre-test	6.93	0.99	9.88	0.88	8.88	0.88
		Post-test	7	1.31	11	1.88	12	1.80
	Fitness Orientation	Pre-test	37.56	2.09	38.11	1.66	38.12	1.80
		Post-test	37.43	1.50	43.28	3.99	46.22	3.01
	Subjective weight	Pre-test	8.18	2.28	7.62	1.36	7.62	1.36
		Post-test	8.25	2.20	6.12	0.62	7.22	1.62
	Body Areas Satisfaction	Pre-test	2.31	0.60	2	1.02	2.1	1.22
		Post-test	2.56	1.31	9.13	1.61	11.23	1.71
	Overall body image	Pre-test	126	5.07	130.14	5.03	126.14	5.13
		Post-test	124.50	4.11	173.12	12.95	180.12	11.23
Social Phobia Inventory	Avoidance	Pre-test	21.43	3.70	20.31	3.85	20.31	3.85
		Post-test	20.12	3.53	1.13	1.18	2.23	1.18
	Fear	Pre-test	18.12	1.99	17.55	2.43	17.55	2.43
		Post-test	19	2.75	1.28	0.71	2	0.36
	Distress	Pre-test	11.25	2.57	13.75	2.21	13.85	2.11
		Post-test	10.93	3.13	1.32	1.36	2.12	1.06
	Social phobia	Pre-test	50.81	4.23	56.16	6.69	59.06	5.09
		Post-test	49	4.22	3.73	2.81	4.18	2.01

Table 2. Results of the co-variance analysis of the effect of group membership (CBT) on enhancement of post-test body image and social phobia

	Variables	Source of changes	df	Mean squares	F	Sig.	Eta square (η)
Body image questionnaire	Appearance evaluation	Pre-test	1	12.76	3.05	0.09	0.09
		Groups	1	138.07	32.97	0.001	0.53
	Appearance orientation	Pre-test	1	14.06	1.86	0.18	0.06
		Groups	1	82.22	10.85	0.003	0.27
	Fitness Evaluation	Pre-test	1	4.18	2.87	0.1	0.09
		Groups	1	33.72	23.14	0.001	0.44
	Fitness evaluation	Pre-test	1	1.48	0.16	0.69	0.005
		Groups	1	176.61	18.87	0.001	0.39
	Subjective Weight	Pre-test	1	32.78	20.68	0.001	0.005
		groups	1	25.67	16.19	0.001	0.39
	Body Areas Satisfaction	Pre-test	1	0.28	0.12	0.72	0.004
		groups	1	325.38	146.08	0.001	0.83
	Overall body image	Pre-test	1	3.74	0.04	0.84	0.001
		Groups	1	12583.04	131.89	0.001	0.82
Social Phobia Inventory	Avoidance	Pre-test	1	79.03	18.12	0.001	0.38
		Groups	1	27778.58	637.16	0.001	0.95
	Fear	Pre-test	1	11.72	3.81	0.06	0.11
		groups	1	2146.06	697.57	0.001	0.96
	Distress	Pre-test	1	44.29	9.85	0.004	0.25
		groups	1	734.40	163.33	0.001	0.85
	Social phobia	Pre-test	1	9.05	0.76	0.39	0.02
		groups	1	14947.85	1253.04	0.001	0.97

Table 3. Results of covariance analysis of the effect of group membership (metacognitive treatment) on enhancement of post-test body image and social phobia

	Variables	Source of changes	df	Mean squares	F	Sign.	Eta square (η)
Body image questionnaire	Appearance evaluation	Pre-test	1	12.73	3.01	0.08	0.08
		groups	1	139.07	33.11	0.001	0.55
	Appearance orientation	Pre-test	1	14.07	1.87	0.18	0.06
		groups	1	83.02	11.05	0.001	0.29
	Fitness evaluation	Pre-test	1	4	2.11	0.1	0.008
		Groups	1	35.32	25.33	0.001	0.47
	Fitness orientation	Pre-test	1	1.48	0.16	0.69	0.005
		groups	1	178.19	18.42	0.001	0.41

	Subjective weight	Pre-test	1	32.78	20.68	0.001	0.42
		Groups	1	25.67	16.19	0.001	0.36
	Body areas satisfaction	Pre-test	1	0.77	0.32	0.91	0.002
		Groups	1	331.01	149.13	0.001	0.85
	Overall body image	Pre-test	1	3.79	0.04	0.86	0.001
		Groups	1	12597.04	143.22	0.001	0.86
Social Phobia Inventory	Avoidance	Pre-test	1	71.05	19	0.001	0.39
		Groups	1	2790.33	639.11	0.001	0.96
	Fear	Pre-test	1	11.73	4.22	0.055	0.13
		Groups	1	2150.06	699.56	0.001	0.97
	Distress	Pre-test	1	44.29	9.85	0.004	0.25
		Groups	1	737.43	165.35	0.001	0.87
	Social phobia	Pre-test	1	9.15	0.78	0.35	0.023
		Groups	1	14952.49	1255.15	0.001	0.98

DISCUSSION

The objective of the present study is to compare the effectiveness of CBT and metacognitive treatment for social phobia and body image of students suffering from social phobia. In CBT, which is aimed at enhancing body image, the patients learn new ways of thinking such as deviation of attention from their body. They also learn not to compare their appearances with others, evaluate their possible deficits, confront their fears and concerns, and stop repeated self-evaluation of their appearance.

One of the most important psychological issues of dysmorphophobia is interpersonal sensitivity. Findings of Basaknezhad and Qafari reveal that interpersonal sensitivity is the most important predictor of dysmorphophobia. Due to the difficulties they experience with their body image they are not interested in communication [10]. The studies by Dalelden et al., assert that people with social anxiety experience high levels of self-focused attention and negative thoughts and assume social positions and relations as threats. Hence, CBT is the most successful treatment method. In this approach, oriented processing of information leads to stabilization of distorted beliefs about the appearance [10].

As Lepine and Pelissolo [11] and Kent and Keohan [12] state, people with social phobia withdraw from crowd because they find themselves vulnerable to negative evaluations. They concluded that there is a significant relationship between body image and social anxiety. That is to say, an increase in social phobia leads to the growth of negative body image, vice versa. Moreover, results of the present study comply with the results obtained by Zanjani et al. [13] who compared the body image of people suffering from social phobia and shyness and normal people. These results are also consistent with Davison and Mc Kabe [14]. who stated that there is a significant relationship between social phobia and body image. Based on cognitive theories, self-evaluation of body image depends on schematics of one's appearance. Schematics of body image are used as cognitive models to evaluate the appearance. Body image is mostly influenced by the mind and self-esteem plays a major role in its creations. That is to say, negative body image leads to a decrease in self-esteem. These two factors are the distinct characteristics of anxiety disorders, especially social anxiety. As a result of feelings of inadequacy the patient prefers solitude and does not function properly in social situations. Hence, it is concluded that not only cognitive problems play a role in social anxiety and negative body image, but also there is a mutual relationship between these two factors. Results of the study by Zargar [10] also reflect the effectiveness of cognitive behavioral therapy for enhancement of body image and decrease dysmorphophobia in girls.

Results of the study by Qafarzadeh et al. which was aimed to analyze the effectiveness of group CBT for social phobia showed that this method is capable of reducing social phobia. In addition, the findings of Foa et al. [6] also reflected the efficiency of CBT for social phobia. Results of their study revealed that the group treated using the CBT method was more improved compared to the groups receiving other treatments. Moreover, the improvement was shown to be more stable in the long run.

The study by Wells et al. [7] shows that CBT is more effective than chemotherapy for the treatment of social phobia. Moreover, results of the vast studies by Liebowitz [8] on the effectiveness of group CBT for the treatment of people with social phobia suggest that this method is among the most efficient methods for the treatment of social phobia. Results of the study carried out on university students suffering from panic attack and social anxiety indicate that CBT causes an increase in self-efficacy in social situations by contributing to cognitive reconstruction and substitution of logical thoughts. The most important point in cognitive treatment of social anxiety is that negative and irrational thoughts are reduced and self-efficacy is increased by role playing, illustration, and cognitive and behavioral techniques. As a result, distress and social anxiety bound with social activities is reduced as well [15].

Studies have shown that CBT is more efficient than chemotherapy or as efficient as chemotherapy in the treatment of anxiety. Results of the study by Keykhah [16] reflect the positive effect of the group assertiveness training method on the reduction in social anxiety and increase in social skills of people with social phobia. Since the training package is employed in the present research as well, results of this study comply with the present results. The study by Vakilian [17] also indicated that teaching social skills with CBT can reduce social phobia. Moreover, findings of the present research also suggest that CBT enhances the body image of people with social phobia. Another point that has to be considered in describing these findings is that improvement of the mental

health of the patients also matters because according to Kantezian's self-treatment theory, patients in fact practice self-treatment to resolve their problems such as depression and anxiety. In the present study, participants were become acquainted with sources of stress, response to stress, consequences of stress, relaxation, reconstruction of thoughts and substitution of more rational thoughts, and schematics. As a result of application of CBT, anxiety was reduced and body image of patients was enhanced. Moreover, changes in beliefs and schematics of body image and substitution of new rational thoughts can change the viewpoint of people on themselves and their body image. The changes can also contribute to improvement of appearance evaluation. In general, since CBT brings about more understanding of situations as well as feelings and thoughts to people, and since it somewhat changes beliefs and opinions and reduces fear, distress and negative attitudes, the person functions properly in social situations. It also challenges irrational body image.

Another result was that cognitive treatment not only reduces phobia and improves body image, but also is more effective than CBT. To explain the effectiveness of cognitive treatment it is worth mentioning that in this approach annoying thoughts and inefficient beliefs are not challenged and thoughts are approached such that complex conceptual analysis and resistance is prevented and incompatible thoughts about concerns are eliminated. Moreover, the presence of negative beliefs cannot explain thinking patterns and consequent responses. This approach emphasizes on taking factors that control thought and state of mind into account. It is the most important distinction between metacognitive treatment and other models such as schematics.

Nord Hall compared the effectiveness of these two methods for the treatment of outpatients suffering with anxiety and depression. He concluded that metacognitive treatment is more useful than CBT in reducing the symptoms of the experiment group. Results of the present study are in line with other studies on the effectiveness of metacognitive intervention for anxiety disorders. Some of the studies are as follows:

Numerous studies have also been conducted on the significant relationship of metacognitive beliefs (especially fusion of ideas) with sings of OCD. Some of these studies include the ones by Wells [7], Khorramdel et al. [9].

This study was conducted on university students with social phobia. It seems that this class of society is highly vulnerable to stress. It is of utmost importance. Anxiety cause by student life and its effects on the mental health of students have been considered recently by researchers. This research was carried out in the Shahed University. Hence, its results can be generalized and extended to other universities and social classes with precaution. It is recommended to apply this method on wider groups and non-student populations to study its effects on male and female sufferers.

REFERENCES

1. Tyssen, R., Vaglum, P., Gronvold, N.T. & Ekeberg, O. 2001. Factors in medical school that predict postgraduate mental health problems in need of treatment. A nationwide and longitudinal study. Journal of Medical Education, 35:110–20.
2. Cash, T.F., Theriault, J. & milkewicz annis, N. 2004. Body image in an interpersonal context: Adult Attachment, Fear of intimacy and social anxiety. Journal of Social and clinical psychology. 23 (1): 89-103.
3. Freda, I. & Gamze, A. 2004. Social phobia among university students and its Relation to self-esteem and body image. Canadian Journal of psychiatry, 49 (9): 630-635.
4. Pope, A., McHill, S. & Criehead, A. 2004. Increase in self-respect among children and adolescents. Translated by Parisa Tajali. Roshd Publications, Tehran.
5. Qasemzadeh, A., Bahari, S. & Narimani, M.2 010.Analysis of the effect of group counseling with a cognitive behavioral approach on the reduction in anxiety and increase in assertiveness of male students. Quarterly of News and Advisory Studies of Ardebil University, 8(31): 95.
6. Foa, E.B. 2003. Cognitive biases in generalized social phobia. Journal of Abnormal Psychology, 105(3): 433-439.
7. Wells, A. &Carter, k. 2001. Further Tests of a Cognitive Model of GAD. Meta Cognition and worry in GAD, Panic Disorder, Sochal Phobia, Depression and none patients. Behavior Therapy. 32, 85-102.
8. Liebowitz, M.R. 1999. Cognitive-behavioral group therapy versus phenelzine in social phobia. Depress-Anxiety, 103: 89-98.
9. Khorramdel, K .2011. Effectiveness of psychological intervention for the reduction in symptoms of patients with OCD. Master's thesis, University of Isfahan.
10. Zargar, Y., Sayyad, S. & Bassaknezhad, S. 2011. Effectiveness of group CBT for dysmorphophobia and interpersonal sensitivity in female students. Behavioral Sciences Research, course 9, no. 5, Psychosomatic Disorders Journal, pp. 37-45.
11. Lepine, J.P. & pelissolo, A.2006 .Why take social Anxiety Disorder Seriously? Depression and Anxiety.11, 87-92.
12. Kent, G. & Keohan, S. 2001. Social anxiety and Disfigurement: The Moderating Effects of Fear of Negative Evaluation and past Experience British Journal of clinical psychology. 40(1): 23-34.

13. Zanjani, Z., Goudarzi, M., Taqavi, M. & Mollazadeh, J. 2009. Comparison of body images of patients with social phobia, shyness and normal people. Journal of Psychology (52), 13th year, No. 4, pp. 391-406

14. Davison, T.E. & Mc CABE, M.P. 2003. The Role of body Image Throughout the life span: A social perspective. The Abstracts of the 38th conference of the Australian psychological society. 175.

15. Bakhtiarpoor, S., Heidari, A. & Alipoor Khodadadi, S. 2011. The relationship of the self-focused attention, body image concern and generalized self-efficacy with social anxiety in students, life science journal, 8(4):704-713.

16. Keykha, F.M. 2011. Effectiveness of assertiveness group training for social anxiety, academic chievement, and social skills of students. Quarterly of Educational Psychology, Islamic Azad University of Tonekabon, second year, no. 1, spring 2011, series 5, 103-116.

17. Vakilian, S., Qanbari Hashem Abadi, B. & Tabatabai, M. 2008. Analysis of the effect of providing social skills training to the CNT group under treatment for social phobia. Journal of Principles of Mental Health, 10th year, no. 2 (38): 87-97.