Cognitive therapy versus behavioral activation therapy in the treatment of social anxiety disorder

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Abstract

Introduction: The aim of this study was to compare of group behavioral activation treatment and group cognitive therapy in reducing Social anxiety symptoms, depressive symptoms, and negative attributions and improving general functioning.

Materials and Methods: The sample of this clinical research consisted of 23 university students who were selected on the base of diagnosis of social anxiety disorder through the structured clinical interview for DSM disorders and being concurrently under psychotherapy or medication. All participants also completed the social phobic inventory, Beck depression inventory, interpretation of negative social events and the work and social adjustment scale. They were randomly assigned to two groups. The first group received 8 sessions of group behavioral activation treatment and the second group received 8 sessions of group cognitive therapy. The data analyzed by descriptive statistics, analysis of covariance and SPSS software.

Results: Findings showed a statistically significant superiority of group behavioral activation treatment over group cognitive therapy in reducing depressive symptoms (P < 0.05) and a statistically significant superiority of group cognitive treatment over group behavioral activation therapy in reducing interpretation of negative social events (P < 0.05). But there were no statistically significant difference between two interventions in social anxiety and functional impairment (P > 0.05). The findings of follow-up also showed the effects of both treatments have been continued in overall.

Conclusion: According to the results of the present research, both treatments have positive effect on treatment of social anxiety disorder but cognitive therapy has more effect on negative cognitions and behavioral activation has more effect on depressive symptoms.

Keywords: Behavioral activation, Cognitive therapy, Depression, Function, Social anxiety disorder

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Introduction

Social anxiety is defined as evident and constant fear of social and functional situations and it occurs from this belief of the individual that he/she acts shamefully and with embarrassment in these situations, and will be judged negatively by others. People with social anxiety usually avoid participating or attending social and functional situations or tolerate such situations with great anxiety (1). Throughout an individual’s lifetime, the prevalence of social anxiety disorder (SAD) as a disease is estimated from 3 to 13 percent. Obviously the prevalence of nonclinical and no pathological types of social anxiety in the general population is far more. Social anxiety, either clinical or nonclinical types, has many negative effects on the educational, occupational and relational functions of the individual. Overall, comorbidity seems to be the rule rather than the exception which is true not only for SAD but also for the majority of other psychiatric disorders. For SAD, epidemiological studies in the community yield lifetime comorbidity rates with any other mental disorder between 69 and 81 percent. Three groups of disorders were particularly frequently studied and proved to be strongly associated with SAD: other anxiety disorders, mood
disorders, and substance problems/disorders (2).
In cognitive therapy for anxiety and depression patients are taught a very basic idiom: “The way you think affects the way you feel.” This simple statement is the cornerstone of cognitive therapy and therapy of emotional disorders, and yet individuals often fail to recognize how their thoughts affect their mood state (3). Behavioral activation (BA) traditionally used in the treatment of MDD (4-9). In order to alleviate depression, BA assumes clients must be assisted in engaging in behavior that they will ultimately find pleasurable or productive, or that will improve their life situations in such a way as to provide greater rewards. Toward this goal, BA also focuses on processes that inhibit activation, such as escape and avoidance behaviors. The avoidance and social withdrawal behaviors serve to maintain SAD symptoms (10).

The decision whether to use a group or an individual format for treatment is usually made on the basis of clinical judgment and practicality. Group treatment has several advantages that make it popular. A number of these are: Group treatment reduces the sense of isolation felt by most peoples, who withdraw from interactions and believe that others cannot understand their feelings. It provides social support that is unambiguous and no blaming. It helps to validate and to normalize feelings and reactions to the anxiety. Group treatment confirms the reality of the stress experience and allows sharing of coping strategies. It counteracts self-blame and promotes self-esteem. Because it is more egalitarian than individual therapy, group treatment can promote re-empowerment and decrease dependency. It provides a safe environment for developing attachment and intimacy with others and an opportunity for sharing feelings. Finally, group treatment can help patients assign meaning to the event and promoting cognitive processing (7).

There are a number of well-established treatments for SAD. Cognitive-behavioral therapies have strong empirical support in meta-analysis as the treatments of choice for SAD (11-13). BA was used for anxiety disorders (14-16). In this study BA used for SAD in comparison with Cognitive therapy.

Materials and Methods
CT package is combinations of various forms of cognitive restructuring. In this research group format of CT is used. BA as a psychotherapy that has been shown to be an effective treatment for depression and it has shown potential for the treatment of other disorders as well. BA assumes clients must be assisted in engaging in behavior that they will ultimately find pleasurable or productive, or that will improve their life situations in such a way as to provide greater rewards. Toward this goal, BA also focuses on processes that inhibit activation, such as escape and avoidance behaviors (8).

The present study included 30 Participants. Participants were students of AmirKabir University who met the DSM5 (17) criteria for SAD. They were recruited from counseling center of AmirKabir University in Tehran. To determine eligibility, a clinical psychologist administered Structured Clinical Interview for DSM-IV (18). Individuals who were actively psychotic, suicidal or met criteria for substance and/or alcohol dependence were excluded from participation. Consented participants were 10 males (43%) and 13 Females (57%), single (100%), and had a mean age of 21.99 years (SD=3.02). Over the duration of the study period, seven participants withdrew from the study for various reasons. Two variable χ2 tests revealed no group differences between BA and CT groups in gender status (χ2s<0.25; P>0.05). In addition, one-way ANOVAs failed to reveal any group differences in age, F (1, 21) =0.76, p >.05, or any measures of baseline symptoms (Fs P>0.05).

Consented participants were randomized to BA or CT using a block randomization procedure. All participants received ten; 90-minute sessions of BA and CT administered by master's-level therapists. Sessions were audio-taped and monitored by an independent rater to ensure treatment fidelity. The Social Phobia Inventory (19), Beck Depression Inventory (20) and the consequences of negative social events questionnaire (21) were administered at pre and post treatment.

The patients were randomly assigned to BA or CT treatments. The study used a basic two-group design with assessment pre and post-treatment and at follow-up 3 months after the end of treatment. A wait-list control group was not included because there is a general agreement that such a controlled design is unethical.

Treatment was group and the therapy sessions lasted 90 min, and were scheduled once a week for a total of eight sessions. Between sessions the patients had homework assignments to carry out and record on specific forms. These were reviewed at the beginning of each session.

Cognitive group therapy: This treatment included a flexible combination of psycho-education cognitive therapy. During education, patients were provided with a general overview of SAD, including common patterns of expression, comorbidity of other anxiety and depressive disorders, impact on social
functioning, and a review of current treatment strategies and group rules. This phase was important for ensuring that participants developed a realistic understanding of their symptoms and prognosis, as well as an overall positive expectancy regarding the efficacy of cognitive-behavioral interventions. Cognitive therapy was used in order to teach the patient to identify and to dispute their unrealistic or exaggerated thoughts about themselves, the world, and their futures with more probabilistic reasoning and evidence-based argument. The patients also taught to de-catastrophize his interpretations of intrusive recollections (22) and generate an alternative, non-catastrophic interpretation of the intrusive recollections. Treatment was included Socratic questioning and teaching clients to challenge their thinking about their social events and the implications they have constructed through the use of progressive worksheets. During Anxiety management skills training, participants were taught skills to better manage their anxiety and stress levels, including elements of relaxation training and breathing retraining.

Behavioral activation group therapy: This treatment was based on group BA manual (23). During two first sessions, introduction of members, expressing group rules and introduction of SAD, depression and BA was use. Also, the therapist provides participants with psycho-education about common reactions to social events, development of SAD and MDD, and how avoidance and withdrawal operate to maintain SAD and MDD symptoms. BA techniques used included daily activity monitoring, daily activity scheduling, TRAP and TRAC skill, self care and seeking social support. Because in a BA model, daily routines are protective against the development of mood disorders, so active-duty deployment was used as structured and reutilized. Daily activity monitoring homework is used to looking for patterns of avoidance and reinforces coping strategies. In daily activity scheduling technique, patients create their own Accomplishment-Pleasure Rating Scale and then schedule activities that provide a sense of pleasure and/or accomplishment for them. The “TRAP and TRAC” skill involves recognizing the connection between situations, emotional reactions, and coping strategies. It helps veterans recognize and change their tendencies to avoid. Self-care means doing specific pleasurable activities that focus on increasing your sense of well-being, health and enjoyment.

Research instruments
- Structured Clinical Interview for DSM-IV: The SCID-IV is a semi-structured diagnostic interview designed to assess the DSM-IV diagnostic criteria for Axis I disorders. The SCID have shown adequate inter-rater reliability for all disorders (0.69 to 1.0) and adequate test-retest reliability over a 1- to 3-week interval in patient samples (0.40 to 1.0).

- Social Phobia Inventory (SPIN): This scale was developed by Connor et al. (19) to assess social anxiety. This questionnaire is a self report scale consisting of 17 items which contains three subscales of fear (6 items), avoidance (7 items) and physiological discomfort (4 items). Connor et al. (19) has reported its internal consistency with the alpha method, 0.82 to 0.94. Furthermore, the test retest reliability was 0.78 to 0.82. In Iranian population, Amoozadeh has reported its internal consistency with the alpha method, 0.82 for its first half, and 0.76 for its second half. Furthermore, the correlation between the two halves was 0.84. The alpha coefficients for each of the subscales are as follows: fear subscale, 0.74, avoidance subscale, 0.75, and physiologic discomfort subscale, 0.75 (24).

- Beck Depression Inventory-2nd Edition (BDI-II): The BDI-II is a 21-item measure designed to assess the cognitive, affective, behavioral, motivational and somatic symptoms of depression in adults and adolescents. Each Item of the BDI is rated on a four-point scale, ranging from 0 to 3 with the total score, out of a maximum of 63 giving an indication of clinical severity. The BDI-II has demonstrated excellent test-retest reliability over a 1-week interval (r=0.93), excellent internal consistency (α=0.92), and convergent and discriminated validity in multiple samples (20). Mohammadkhani et al. reported that psychometric characteristics of this test among Iranian population are good (25).

- The Consequences of Negative Social Events Questionnaire: This questionnaire was designed to explain the consequences of negative social events. In this questionnaire 16 negative social events were described, and four subscales: negative self evaluations, negative evaluations by others, short term and long term negative consequences of social events were also included (21). Each of the scales demonstrated high internal consistency (0.95 for belief in negative evaluations by others, 0.97 for belief in negative self-evaluations, and 0.97 for belief in negative long-term consequences). In Iran, Ostovar used the two scale form of this questionnaire and, by calculating the alpha, reported its reliability for the negative self-appraisal, 0.89,
and the negative appraisal by others, 0.90 (26).

- Work and Social Adjustment Scale (WSAS): The Work and Social Adjustment Scale (WSAS) is a self-report scale of functional impairment attributable to an identified problem. This scale is an outcome measure for the Improving Access to Psychological Therapy program (27). The WSAS is a simple, reliable and valid measure of impaired functioning. It is a sensitive and useful outcome measure offering the potential for readily interpretable comparisons across studies and disorders. Cronbach's alpha measure of internal scale consistency ranged from 0.70 to 0.94. Test-retest correlation was 0.73.

Interactive voice response administrations of the WSAS gave correlations of 0.81 and 0.86 with clinician interviews. Correlations of WSAS with severity of depression and obsessive-compulsive disorder symptoms were 0.76 and 0.61, respectively. The scores were sensitive to patient differences in disorder severity and treatment-related change (28). Soleymani conclude that Psychometric properties of WSAS in Iranian population (n=67) is good. Pearson correlation of WSAS and Depression, Anxiety and Stress Scale (DASS) is 0.66 and test-retest correlation was 0.69.

Results

There were no significant differences between two groups in demographic characteristics and pretest evaluations. Results for the two treatment groups across time are shown in Table 1. The ANOVAs on the measures revealed significant main effects of time on SAD symptom severity, depression, negative evaluations (self appraisal and other appraisal) and general functions. Post hoc Tukey tests indicated that the treatment groups improved significantly on each of the self-report scales between pre-treatment and post-treatment (P<0.01), between pre-treatment and follow-up (P<0.01), and between post-treatment and follow-up. Also results show that two groups were equal in social anxiety and General functions, but BA group was more effective in decrease depression symptoms and CT group was more effective in decrease negative evaluations. Discussion of this results offer in conclusion.

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<th>Measure</th>
<th>Behavioral activation</th>
<th>Cognitive therapy</th>
<th>ANOVA P-values</th>
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<tr>
<td>Social anxiety severity</td>
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<tr>
<td>Pre</td>
<td>39.6 (6.6)</td>
<td>37.2 (5.4)</td>
<td>G: 0.46</td>
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<tr>
<td>Post</td>
<td>17.6 (6.1)</td>
<td>16.7 (4.1)</td>
<td>T: 2.48*</td>
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<tr>
<td>Follow-up</td>
<td>18.1 (5.1)</td>
<td>17.7 (5.2)</td>
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<td>Beck Depression Inventory</td>
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G, Group effect; T, time effect; I, interaction effect in the ANOVA. *P<0.05, **P<0.01.

Discussion

We evaluated the effects of CT versus BA for patients with SAD. Results show that both treatments were highly efficacious. Effect of treatments both immediately afterwards and 3 months after treatment assessed. The results of this study showed that BA and CT decreased the patients’ Social Anxiety and depression symptoms, decrease negative evaluations about self and others and improve general functions. These results were largely maintained at the 3-month follow-up. The second aim of this study was to compare BA with CT. The results were not in line with the prediction that CT would be more effective than BA. Both treatments were equally effective and there was no significant difference between them on decreasing Social Anxiety symptoms and general functions. But BA was more effective in decreasing depression symptoms and CT was more effective in decreasing negative evaluations about self and others. This result is predictable and can be concluded.

These results provide evidence that real-time increases in activity-levels (activation) that are functionally related to anxious behaviors might be associated with decreases in anxiety. The outcomes of the study have important implications for the practitioner seeking to provide cost-effective treatment for adult anxiety in typical outpatient settings. BA targets avoidance, withdrawal, isolation and inactivity, it is hypotheses that BA will favorably affect Social Anxiety and depression symptoms (16). However, avoidance behaviors will be targeted through examining the individual’s general behavioral repertoire, rather than through exposure techniques, possibly making BA acceptable to clients. BA strategies (e.g., scheduling and participating in positively reinforcing and/or valued activities) may enhance exposure therapy for Social Anxiety symptoms by...
directly targeting comorbid depression symptoms and areas of functional impairment. BA highlight the relationship between stressful life events and the development of psychopathology, both emphasize the concepts of avoidance and engagement. BA strategies may target a broader range of symptoms and psychosocial domains (8).

According to the cognitive theory (22) individuals interpret the occurrence of the social recollections in a catastrophic way. The clinical improvements in CT may have been due to cognitive interventions. This tentative conclusion suggests that different mechanisms can lead to the same results in the treatment of social anxiety (10). This is further supported by results from a study in which Jacobson et al. (29) compared Behavioral Activation (BA) with BA plus an Automatic Thought (AT) treatment and Cognitive Therapy (CT) that included BA, AT plus a component focused on core schemas. They found that all three treatments performed equally well and concluded that BA was the most cost effective treatment method for depression. If several treatments are equally effective for one specific disorder, the most cost-effective alternative should be chosen. Since BA requires less amount of training and time and can be taught to therapists with less training and experience than CBT it should be preferred to CBT in the treatment Social Anxiety symptoms. Behavioral strategies consist of restoring an adequate schedule of positive reinforcement in the person’s life, thereby reducing dysphoria and depression. Commonly, alterations are made in the frequency, quality, and range of the patient’s activities and social relationships. Targeting avoidance behaviors may be an important innovation. Addressing avoidance is standard in treatments for anxiety, and recent models propose that avoidance may be a fundamental element underlying multiple psychopathologies and that blocking avoidance may be a critical element of treatment (30). Avoidance minimizes immediate distress at the cost of both diminishing opportunities for reinforcement and exacerbating ongoing stressors. BA explicitly targets the reduction of avoidance behaviors related to both intrapersonal and interpersonal difficulties. The BA model uses focused activation strategies to explicitly target avoidance patterns and associated functional consequences. In essence, in BA, patients learn to identify patterns of avoidance and to respond with activation; this basic principle is applied repeatedly across multiple situations in therapy. Moreover, the BA model utilizes a fundamentally different approach to negative and ruminative thinking than used in CT. First, behavioral interventions address the function of negative or ruminative thinking, in contrast to CT’s emphasis on thought content. BA encourages attention to the consequences of ruminating (avoidance and withdrawal) and the use of activation strategies as alternatives (10). In this regard, BA shares important elements with other contemporary behavioral therapies that emphasize function rather than topography of behavior. BA also overlaps in this way with strategies in CT that explore the utility (as opposed to the validity) of thoughts. It is possible that an emphasis on the utility or function of thinking has a particularly important role in the treatment of depression. Patients are encouraged to notice when they are ruminating and to move their attention away from the content of ruminative thoughts toward direct and immediate experience; for instance, a patient may be asked to experiment with attending to the sights, smells, or sounds around her when she notices that she is ruminating (23).

**Conclusion**

Both treatments have positive effect on negative cognitions and depressive symptoms but CT has more effect on negative cognitions and BA has more effect on depressive symptoms. It proposes that both treatments are treatment of choice for social anxiety disorder and this idea should be test in future researches.

**References**