

ORIGINAL RESEARCH

The Effects of Group Based Cognitive Behavioral Therapy on Self-Compassion, Social Anxiety and Ruminative Thought Style of Turkish Youth Transitional Age: A Controlled Study on University Students

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Abstract

Objective: Social anxiety disorder (SAD), is characterized by the fear of being negatively evaluated or showing symptoms of anxiety in social environments or performance conditions which usually leads to avoidance behavior. It is known that changing negative thoughts and replacing them with alternatives have an important place in its treatment. In Cognitive Behavioral Therapy, the focus is mainly on the person's negative thoughts about himself. Group Based Cognitive Behavioral Therapy (CBGT) is a frequently used therapy model in anxiety disorders, including social anxiety. The aim of this study is to examine the effect of CBGT on the social anxiety levels of university students with elevated SAD symptoms, as well as on their ruminative thinking styles and self-compassion.

Methods: Liebowitz Social Anxiety Scale (LSAS) was applied to 1200 students. Thirty students who had highest social anxiety levels were selected. The selected students were assigned to the experimental and placebo groups. CBGT was applied to the experimental group, and communication-based group therapy was applied to the placebo group.

Results: There is a significant difference between pretest and posttest of the LSAS and rumination levels of the experimental group. In addition, LSAS and rumination post-test levels were found to differ significantly according to the group. There was no significant difference in self-compassion levels.

Conclusion: The social anxiety and ruminative thinking levels of the students with social anxiety disorder symptoms receiving cognitive behavioral group therapy decreased. No change was observed in the self-compassion levels of the individuals.

Keywords: Social Anxiety Disorder, Cognitive Behavioral Group Therapy, Ruminative Thinking, Self-Compassion, Cognitive Behavioral Therapy

INTRODUCTION

University is a process in which individuals experience the transition from childhood to youth and some of the difficulties experienced by students (1). Students' expectations of success in their academic life, their efforts to adapt to the new environment they are in, the need to make decisions like an adult in the face of negative situations they face, and being away from their families cause them to encounter different problems suddenly (2,3). Studies show that these problems cause troubles such as depression, social anxiety and stress in university

students (2,4). One of the frequently encountered problems in the field of mental health in recent years is SAD (5). SAD is a disorder that emerges in social situations or performance conditions, is characterized by fear of being evaluated negatively or showing anxiety symptoms, and generally causes avoidance behavior (6). Individuals with SAD may have recurrent negative thoughts about themselves before, during and after a situation they experience. Rumination denotes a constant focus on negative thoughts and their meanings (7). It has been shown that rumination plays an important role in memories of past negative experiences among individuals with elevated anxiety levels, and these individuals ruminate more and have more negative thoughts, anxiety and dysfunctional beliefs (8,9,10,11,12). Self-compassion, a novel concept in psychology, is one of the most effective treatment methods for these difficulties. Neff defined self-compassion as; a) a gentle and understanding attitude rather than harsh criticism of one's own pain and

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failure, b) awareness that these pains and failures are not only experienced by the person but are common to all people c) paying attention to what is happening in the present moment and accepting these realizations without any judgment (13). Considering the studies examining self-compassion and social anxiety disorder, it is seen that individuals with SAD have lower levels of self-compassion than individuals without anxiety. There is also a negative correlation between self-compassion and social anxiety and fear of negative evaluation (14,15,16,17,18). Individuals think that they will be evaluated negatively, and that fear can be seen as one of the important reasons for SAD, and it can be said that changing negative thoughts and producing alternative thoughts have an important place in the treatment of social anxiety disorder. CBT, which has been an effective therapy model in the treatment of SAD, focuses on the negative thoughts of the person, and these thoughts are worked with the client (19).

In this study, based on the importance of the concepts of self-compassion and rumination in social anxiety disorder, CBGT and the concepts of social anxiety, rumination and self-compassion were examined together in students with elevated levels of SAD symptoms. With the CBGT, it was aimed to investigate the change in social anxiety, ruminative thinking and self-compassion levels of university students with social anxiety disorder and the persistence of this change.

METHODOLOGY

Sampling

In this study, 1200 students studying at a private university in the southeast of Turkey were applied Liebowitz Social Anxiety Scale (LSAS). Thirty people who declared that they would participate in the study on a voluntary basis and got high scores on the scale were included in the sample. These people were randomly divided into two subgroups. One of the groups was randomly defined as the experimental group and the other as the reference and control group.

Measures

Within the scope of the research, the number of students according to faculties and gender was taken from the Student Affairs Directorate of the university. Later, permission was obtained from the ethics committee to conduct research (Hasan Kalyoncu Üniversitesi Bilimsel Araştırma Yayın Etiği Kurulu, 03.10.2018 / No: 16). Liebowitz Social Anxiety Scale was applied to 1200

students who were determined as stratified randomly after the approval letter to determine individuals with social anxiety disorder.

Demographic Information Form

This form was created in order to define the socio-demographic characteristics of the people participating in the study. In this form, there were questions to obtain information regarding the people who participated in the study about age, gender, place of birth, number of siblings, parental information (education, employment and monthly income status, alive dead, together and separate, etc.), hobbies, whether the person or his family has attended a psychologist and/or psychiatry.

Liebowitz Social Anxiety Scale (LSAS)

LSAS was developed by Liebowitz in 1987 to evaluate the social relationship and performance status of individuals with SAD in which they show fear and/or avoidance behavior. The scale was created to determine the anxiety and/or avoidance levels of people with SAD in social relationships and situations requiring performance (20). The scale is a 4-point Likert scale consisting of 24 items, 48 items in total, and is evaluated under the subheadings of anxiety and avoidance. Each of the 24 items in the scale is scored between 1 and 4 for fear and avoidance behavior. The total score is obtained by summing the fear and avoidance scores. LSAÖ was adapted to Turkish by Soykan, Özgüven and Gençöz in 2003. Test-retest reliability, internal reliability and internal consistency coefficient (Cronbach's alpha) were used to find the reliability of the scale. Test-retest reliability was calculated as .97 in the study. In the criterion validity, it was found that the anxiety, avoidance, and total scores obtained from LSAS significantly differentiate patients diagnosed with general social anxiety from patients diagnosed with other anxiety disorders as well as patients in the control group. In the Turkish version of this scale, the cut-off score was 26 for the fear dimension and 20 for the avoidance dimension with a total cut-off of 48 for clinically significant SAD symptoms (21).

Ruminative Thought Style Questionnaire (RTSQ)

This scale was developed by Brinker and Dozois (2009) and is a 7-point Likert type scale consisting of 20 items (22). The reliability and validity of study was conducted by Karatepe (2010) to adapt the scale to Turkish. Internal consistency and test-retest analysis were calculated in the reliability study. In the study, the internal consistency coefficient, Cronbach alpha value of the scale for the

whole test was found as $\alpha = .907$. Concerning the validity of the scale, construct validity and item relations analyzes were conducted. The only factor that explains 63.43% of the total variance was accepted as a result of the construct validity analysis (23).

Self-Compassion Scale

The Self-Compassion (Self-Sensitivity) Scale, developed by Neff (2003), consists of a total of 26 items and has six dimensions. These sub-dimensions are self-caring, self-judgment, awareness of posts, isolation, consciousness, awareness and over-identification.¹³ The scale has a 5-point Likert type rating. The adaptation study of the scale into Turkish was conducted by Deniz, Kesici and Sümer (2008), and internal consistency and test-retest analyzes were performed in the reliability study. As a result of the internal consistency analysis of the scale, Cronbach's alpha coefficient was found to be $\alpha = .89$, and test-retest reliability was found to be $\alpha = .83$ (24).

Treatment

Of the 30 people who got high scores on the Liebowitz Social Anxiety Scale, 15 were randomly placed in the experimental group and 15 were placed in the placebo group. Liebowitz Social Anxiety, Ruminative Thinking Style and Self-compassion scales were applied to the groups before the sessions. Then, a psychological counseling session with the CBT group were applied to the experimental group for eight weeks. On the other hand, the placebo group received group psychological counseling based on communication, which lasted eight weeks. During the sessions, five people in the experimental group and seven in the placebo group dropped out working. People who dropped out of the groups stated that they could not attend the group due to intensive course schedules, exams, courses and travel outside the city. It was observed that more subject losses were experienced in the experimental group, especially after exposure sessions. The fact that the participants in the experimental group experienced more intense anxiety after the exposure sessions and stopped the therapy, as a result, might be explained by the avoidance behaviors experienced in intense anxiety situations. After the programs were implemented, Liebowitz Social Anxiety, Ruminative Thinking Style and Self-compassion scales were applied to the groups again. In addition, four weeks after the sessions ended, these tests were applied to the groups for the third time as follow-up tests.

Statistical Analysis

SPSS 25.0 program (IBM Inc., Armonk, NY) was used to analyze the data within the scope of the research. Since the data in the study did not show normal distribution, nonparametric tests were applied. Mann-Whitney U test was used to obtain information about whether the experimental and placebo groups had a similar distribution in terms of the variable of interest, and the Friedman test was used to compare the pre-test, post-test and follow-up results of the groups. The effect sizes of statistically significant changes were calculated with Bonferroni correction using Wilcoxon signed rank tests. In order to calculate the effect size between the groups, the formula $r = Z / (\sqrt{n})$ was used. When the criterion is around 0.1, it is interpreted as a weak effect size. When it is around 0.3, it is interpreted as a medium, but when it is around 0.5, it is interpreted as a high effect size (25).

RESULTS

Comparison of Pre-Test Scores According to Groups

LSAS, rumination and self-compassion pre-test levels of the participants do not differ significantly according to the group ($p > .05$).

Table 1. Comparison of LSAS, rumination and self-compassion pre-test levels of the participants according to the group

| LSAS | Group | n | Average | Total | U | p |
|-----------------|--------------|----|---------|-------|-------|------|
| | Experimental | 10 | 8.50 | 85 | 30 | .374 |
| | Placebo | 8 | 10.75 | 86 | | |
| Rumination | Experimental | 10 | 7.35 | 73.50 | 18.50 | .055 |
| | Placebo | 8 | 12.19 | 97.50 | | |
| Self-compassion | Experimental | 10 | 7.55 | 75.50 | 20.50 | .083 |
| | Placebo | 8 | 11.94 | 95.50 | | |

*Mann Whitney U test; $P < .05$ – statistically significant.

Pre-Test, Post-Test and Follow-up Comparisons of Experimental Group's Scores

LSAS levels of the experimental group changed from pre-test to post-test and from it to follow-up test ($p < .05$, Effect Size= 0.55). The rumination levels of the experimental group vary from pre-test to post-test and from it to follow-up test ($p < .05$, Effect Size= 0.56). However, the self-compassion levels of the experimental group did not change from pre-test to post-test and from it to follow-up test ($p > .05$).

Table 2. Friedman test result of LSAS levels of the experimental group during pre-test, post-test and follow-up test

| Test | n | Mean Rank | c ² | p | Significant Difference | η ² |
|----------------|----|-----------|----------------|------|------------------------|----------------|
| LSAS pre | 10 | 2.80 | 11.55 | .003 | Pre-follow up | 0.55 |
| LSAS post | 10 | 1.80 | | | | |
| LSAS follow up | 10 | 1.40 | | | | |

*Fridman U test; P < .05 – statistically significant.

Comparison of Post-Test Scores According to Groups

The LSAS posttest levels of the participants differ significantly according to the group (p <.05, Effect size=0.71). The posttest rumination levels of the participants differ significantly according to the group (p <.05, Effect size=0.48). However, the posttest self-compassion levels of the participants did not differ significantly according to the group (p > .05).

Table 3. Friedman test result of the rumination levels of the experimental group during the pre-test, post-test and follow-up test

| Test | n | Mean Rank | c ² | p | Significant Difference | η ² |
|----------------------|----|-----------|----------------|------|------------------------|----------------|
| Rumination pre | 10 | 2.65 | 8.67 | .013 | Pre-follow up | 0.56 |
| Rumination post | 10 | 1.35 | | | | |
| Rumination follow up | 10 | 2.00 | | | | |

*Fridman U test; P < .05 – statistically significant.

Table 4. Friedman test result of the self-compassion levels of the experimental group during the pre-test, post-test and follow-up test

| Test | n | Mean Rank | c ² | p | Significant Difference |
|---------------------------|----|-----------|----------------|------|------------------------|
| Self-compassion pre | 10 | 1.70 | 2.18 | .336 | - |
| Self-compassion post | 10 | 2 | | | |
| Self-compassion follow up | 10 | 2.30 | | | |

*Fridman U test; P < .05 – statistically significant.

Table 5. Comparison of LSAS post-test levels of the participants according to the group

| Group | n | Mean Rank | Sum of Rank | U | p |
|--------------|----|-----------|-------------|---|------|
| Experimental | 10 | 6.10 | 61.00 | 6 | .002 |
| Placebo | 8 | 13.75 | 110.00 | | |

* Mann Whitney U test; P < .05 – statistically significant.

Table 6. Comparison of the rumination post-test levels of the participants according to the group

| Group | n | Mean Rank | Sum of Rank | U | p |
|--------------|----|-----------|-------------|-------|------|
| Experimental | 10 | 7.20 | 72.00 | 17.00 | .041 |
| Placebo | 8 | 12.38 | 99.00 | | |

* Mann Whitney U test; P < .05 – statistically significant.

Table 7. Comparison of the self-compassion post-test levels of the participants according to the group

| Group | n | Mean Rank | Sum of Rank | U | p |
|--------------|----|-----------|-------------|-------|------|
| Experimental | 10 | 8.25 | 82.50 | 27.50 | .265 |
| Placebo | 8 | 11.06 | 88.50 | | |

* Mann Whitney U test; P < .05 – statistically significant.

DISCUSSION

This study investigated the effect of cognitive behavioral group therapy on social anxiety, rumination, and self-compassion levels in university students with elevated levels of social anxiety disorder symptoms. SAD incidence may be elevated in the university period (26,27,28). Left untreated, SAD may reduce quality of life, lead to social isolation and onset of other psychopathologies. The results of this study may support beneficial effects of CBGT on SAD symptoms among university students. These results are in accordance with the literature. Previous studies also support reduction in anxiety levels of individuals who undergo CBGT (29,30,31,32,33,34,35,36). Also, the effect of group therapy may continue for up to six months after treatment (37,38,39,40,41). In another study similar to this study in terms of duration, the anxiety levels of individuals with SAD on the 6-week CBGT program were higher than the anxiety levels of individuals who received the 12-week CBGT program, but in follow-up studies performed three months later, both groups stated that CBGT had a similar effect (42). We could apply CBGT in our study for eight weeks instead of twelve due to the academic calendars of the students and observed the continued effect of CBGT after one-month of follow-up, similar to previous studies. Therefore, CBGT trials of 6, 8 or 12 weeks may have similar effects in reducing social anxiety. Some studies suggest even longer durations of therapeutic gains (43). On the other hand, no change in anxiety levels was observed in the placebo group in which communicative group therapy was applied in our study. In this study, the increase in the level of anxiety of the placebo group may have been influenced by the

individuals sharing about anxiety during the eight-week therapy, talking about these posts, and thinking more about the anxiety and negative social experiences of the individuals following the end of the safe environment provided by the therapy. When the post-test results of the experimental and placebo groups are compared, it is seen that the anxiety of the experimental group has decreased. The statistically significant difference in the final test results of the experimental group compared to the control group shows that CBGT can be an effective method in the treatment of social anxiety disorder. Findings obtained from this study show that there is a statistically significant decrease in ruminative thoughts of the CBGT group. In other words, it can be said that the applied cognitive behavioral approach decreases the ruminative thoughts observed in individuals with SAD. When the effect size is examined, it was seen that CBGT has a high effect on these thoughts. It was observed that the decrease in ruminative thoughts of individuals with social anxiety after CBGT remained the same in the follow-up study 1 month later. This result shows that CBGT is effective not only on anxiety but also on ruminative thoughts. In other words, we can think that the effect of CBGT continues and that individuals with social anxiety who participated in the treatment apply their experiences during the treatment in their daily lives. With the application of the experiences in therapy to life, an effective decrease may be achieved in the person's ruminative thoughts about himself and his environment. When we look at the placebo group, no change was observed. The results show that communicative group therapy has no effect on ruminative thinking in individuals with social anxiety. When the post-test results of the experimental and placebo groups were compared, the ruminative thoughts of those in the experimental group decreased, while the ruminative thoughts of the placebo group did not change. These results show that CBGT can be an effective method in reducing ruminative thoughts in the treatment of SAD. Although there are a limited number of studies investigating the effect of cognitive behavioral group therapy on ruminative thoughts in individuals with SAD in the literature, studies support that cognitive behavioral group therapy is an effective method in reducing ruminative thoughts, consistent with the results obtained from this study. In a recent study, cognitive behavioral therapy was applied to individuals with SAD, and it was observed that rumination decreased after the event (44). In a similar study, cognitive behavioral therapy reduced ruminative thoughts of patients with SAD (11). Brozovich and colleagues also showed that individuals with more

ruminative thoughts during cognitive behavioral therapy had more anxiety symptoms (45). The association of ruminative thoughts with anxiety symptoms in individuals with social anxiety and the decrease in the anxiety symptoms after therapy suggests that rumination may be an important factor in the treatment of the disease. Individuals with SAD frequently think about their past negative experiences before the anxiety-causing situation and accept these negative experiences as a reference in any situation they may encounter in the future. Since they have negative experiences in their focus, they may feel anxiety with the thoughts that they will fail in social and performance-demanding situations. In addition, individuals with social anxiety constantly think about their performance and make negative judgments about themselves with post-event processing after negative situations they experience. For these reasons, the decrease in ruminative thoughts of individuals with social anxiety, whose anxiety level decreased with CBGT, is an explainable result.

Finally, in this study, the effect of cognitive behavioral group therapy on university students' self-compassion level was examined. When the results of the study were examined, it was seen that CBGT application did not cause a significant change in the self-compassion levels of individuals. When we look at the placebo group, again, there is no significant difference. These findings show that communicative group therapy has no effect on increasing self-compassion in individuals with anxiety. When the post-test results of the experimental and placebo groups were compared, it was stated that CBGT had no effect on self-compassion while reducing social anxiety. Contrary to these results obtained from the study, the self-compassion level is expected to increase in individuals who undergo CBGT due to the higher self-compassion levels seen in individuals without a diagnosis of SAD and higher self-compassion in individuals with low anxiety compared to individuals with high anxiety (46,47,48,18). Similarly, studies are showing that individuals with low self-compassion have higher anxiety levels (14,15,16,46). Moreover, self-compassion is a predictor of anxiety (49). Self-compassions can be considered an important concept for individuals with SAD to accept social failures and develop functional thoughts instead of negative automatic thoughts (16). As a matter of fact, it has been shown that individuals with high self-compassion are more suitable for cognitive restructuring (50). Considering the relevant literature, it is stated that compassion-focused therapy is an effective method in reducing anxiety. It has been reported that clinical patients' self-compassion levels

increase, and anxiety levels decrease with compassion-focused therapy (51,52). It was thought that CBGT could also increase self-compassion levels due to the existence of common approaches such as psychoeducation, Socratic dialogues, exposure, breathing exercises, and generating alternative thoughts (53). However, the fact that there is no change in the self-compassion levels of the individuals after group therapy suggests that the approaches common to both treatments alone will not be sufficient. For this reason, it can be said that compassion-oriented imagination and compassionate thinking and acting teachings, which are in compassion-focused therapy and not in CBGT, are important approaches in increasing self-compassion. When the literature is examined, it is seen that self-compassion-focused group therapy is generally applied for 12-16 weeks in different psychopathologies (52,54,55). The 8-week duration of this study can be interpreted as not being sufficient to increase self-compassion. Therefore, the study can be repeated with the longer-term CBGT program. On the other hand, the fact that there are studies showing that there is no significant relationship between self-compassion and anxiety levels may explain that CBGT has no effect on self-compassion in this study (56,57,58). In addition, some studies show that women's self-compassion levels are lower than men (59,60). In this study, the higher female participants (14) compared to the male participants (4) may be an alternative reason for the lack of any change in their self-compassion levels after eight weeks of therapy.

CONCLUSION

In this study, social anxiety levels and ruminative thoughts of university students with social anxiety disorder decreased after cognitive behavioral group therapy. It was observed that cognitive behavioral group therapy had no effect on increasing self-compassion. In the follow-up study one month later, it was seen that the effect of cognitive behavioral group therapy on social anxiety and ruminative thoughts was preserved. No change was observed in the level of self-compassion. In this study, 18 participants majoring in a Turkish university took part. Future studies can be done with more participants with SAD. In addition, the study was carried out only with university students, and it is thought that it can be repeated with individuals from different sample groups in future studies. In addition, since there were more female students in the study, the study can be repeated with a more suitable female-to-male ratio.

One of the limitations of the study is that the sample is limited to university students. In addition, due to the academic calendars of the participants, the follow-up study was carried out one month later. The levels of social anxiety, ruminative thought and self-compassion examined in the study are limited to the qualities measured by the scales used.

In the study, pre-test, post-test and follow-up measurements were made. In future studies, these measurements can be made after each session in order to see how much progress individuals made in which session. Another point is that in our study, the follow-up measurements were made one month later, and it is important to carry out the follow-up study later and repeat it at regular periods in new studies to be carried out with CBGT in terms of examining the effect of CBGT in a long time. In addition, it is thought that the effect of the treatment can be increased by enriching the CBGT program with third-generation therapy methods. Other studies can be carried out, especially with therapeutic approaches to increase self-compassion.

Due to the scarcity of studies conducted with CBGT in our country, further studies may contribute to the literature. In addition, in these studies, it is thought that keeping the therapy time longer may increase the effect of the treatment.

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