

## Effects of Cognitive-Behavioral-Theory-Based Skill-Training on University Students' Future Anxiety and Trait Anxiety\*

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### Abstract

*Problem Statement:* Future Anxiety (FA) and Trait Anxiety (TA) have negative effects on individuals' productivity, which can lead them to feelings of insecurity and eventually depression. Knowing more about future anxiety helps people feel more secure and produce more effectively for themselves, and eventually for society. This research examined the efficacy of a cognitive-behavioral theory (CBT)-based training program on FA and TA.

*Purpose of the Study:* This study aimed to examine the effectiveness of a CBT-based training program on the FA and TA of university students.

*Method:* A quasi-mixed methods design was used for this study. The sample consisted of 28 university students (14 experimental, 14 control) in a public university in the Aegean Region of Turkey during the 2015-2016 academic year. Brief Symptom Inventory and Beck Depression Inventory were used to select participants for group processes. The Personal Information Form, Trait Anxiety Inventory, Positive Future Expectations Inventory, and Anxiety of Making Mistakes Scale were used as quantitative data collection instruments. Qualitative data were obtained using the General Evaluation of Group Processes form. Eight sessions were designed and applied to the experimental group. No procedures were applied to the control group. Quantitative data were analyzed using two-way repeated measures ANOVA, paired samples t-test and Mann Whitney U. A thematic analysis was also applied to the qualitative data.

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*Findings and Results:* Results revealed that a CBT-based Overcoming FA and TA Skill-Training program decreased university students' trait anxiety levels and anxiety about making mistakes, while increasing positive future expectations.

*Conclusions and Recommendations:* The present study found that a skill-training program based on CBT affected individuals' future perceptions in an expected way. Similar research should be conducted with different age groups and different samples. Further research may focus on developing a measurement for FA.

*Keywords:* Future anxiety, trait anxiety, psycho-educational group, university students.

## Introduction

Anxiety is defined as "a future-oriented emotion, characterized by perceptions of uncontrollability and unpredictability over potentially aversive events and a rapid shift in attention to the focus of potentially dangerous events or one's own affective response to these events" (Barlow, 2002, p. 104). According to Clark and Beck (2011, p. 5), anxiety is considered a complex response system in cognitive, affective, physiological, and behavioral terms. They also stated that highly aversive events trigger anxiety since these events are perceived as unpredictable and uncontrollable moments that could potentially pose a threat to an individual. A great number of studies reported that college students have many problems within different areas and that they feel anxious about different issues (Erkan, Ozbay, Cihangir-Cankaya, & Terzi, 2012; Koydemir & Demir 2005; Ozbay, 1996). During their college years, people inevitably consider their future life because of a desire to create a healthy, happy adulthood for themselves (Yesilyaprak, 1985). Occasionally, this tendency to think about the future gives place to future anxiety (FA).

As a specific form of anxiety, FA is defined as a state of uncertainty, fear, and worry concerning threatening changes in one's personal future. In general cases, FA has certain characteristics. FA may lead to: (i) passively waiting to see what will happen in life; (ii) avoiding ambiguity and risk; (iii) sticking to well-known ways in life; (iv) using different regressive defense mechanisms rather than making strides with negative situations; and (v) using social sources to make one's future safe. FA leads individuals to avoid making future plans. People struggling with FA have difficulty with humor, have more negative psychological symptoms, and cannot feel effective in handling difficult future life situations (Zaleski, 1996).

FA has negative effects on individuals' productivity, which can lead them to feeling insecure and eventually depressed about their future (Zaleski, 1996). In particular, as a period between adolescence marked by complete liability for social responsibilities, the college years are climacteric of lifelong development and psychological symptoms consequently tend to increase during this period (Yesilyaprak, 1985; Bozkurt, 2004). Erdur-Baker and Bicak (2006) stated that college

students are more concerned about their future than people in other developmental stages of life. Supporting that, Guleri (1999) reported that only 44% of young adults are optimistic about their future, which means they might not be overly optimistic. Erozkhan (2011) reported that senior college students have anxiety about exams, which represent the final step before graduation and starting a working life. This situation also causes college students to feel a sense of hopelessness about their future. These kinds of problems can cause psychological and somatic symptoms (Erozkhan, 2011). So, knowing more about FA is about being more secure and producing more effectively for one's self, and eventually for society. Thus, FA is an important issue to cope with for both individual and society.

As Zaleski (1996) emphasized, one of the strong elements of FA is its cognitive rather than emotional components. In this context, everyone has cognitions including their own positive or negative beliefs about the future. Positive beliefs about worry regard worrying as something that can help people prepare for the worst scenarios, while negative beliefs about worry relate to the low probability of those bad scenarios occurring (Koerner & Dugas, 2006). While college students' negative ways of thinking are powerful predictors of their anxiety and negative coping styles, their positive thinking and anxiety levels have a negative correlation (Mahmoud, Staten, Lennie, & Hall, 2015). High FA and trait anxiety (TA) individuals have many more negative beliefs and fewer positive beliefs about the future and do not comfortably list many reasons why the threatening event may not happen.

A cognitive model is at the forefront since it works on cognitions and thus brings out changes in emotions and behaviors (Sanders & Wills, 2003). This is why, while coping with FA, restructuring negative beliefs about the future is the major issue of FA intervention. When individuals learn to think in a realistic way, their mood and behavior will improve (Beck, 2001). Cognitive Behavioral Therapy (CBT) is a well-known and well-accepted therapy approach, especially for the treatment of different anxiety types, because of its measurable characteristics and empirical results reporting its effectiveness with the prevention and intervention of various anxieties. For example, Butler Chapman, Forman and Beck (2006) reported large effect sizes of CBT for generalized anxiety disorder, panic disorder, social phobia, post-traumatic stress disorder, and unipolar depression. Hofmann and Smits (2008) similarly proposed that CBT was efficacious for adult anxiety disorders. Accordingly, Karahan, Yalcin and Erbas (2014) reported that their CBT-oriented anger management program was effective in reducing the anxiety levels of college students. From this perspective, a cognitive behavioral approach seems to be an effective intervention for FA.

As previously mentioned, anxiety and FA can create distress among college students. With this in mind, it is necessary to develop college students' skills for coping with their anxiety. In this manner, college students can be more productive during their life and improve their psychological health. In addition, there are a great number of studies in the literature about coping anxiety (Dugas et al., 2003; Hofmann & Smits, 2008; Karahan et al., 2014), but experimental studies on FA could not be found. Although a study by Karahan et al. (2014) was based on anger management,

this Turkish study investigated the efficacy of their program on college students' anxiety levels. In contrast, the skill training program detailed in this study aims to directly cope with anxiety and beyond coping with general anxiety. It also targets coping with FA. Within this scope, Mahmoud, Staten, Lennie, & Hall, (2015) specified that it is necessary to directly study college students' negative ways of thinking to help them manage anxiety with prevention and intervention programs. When considering the prevention of various anxieties, CBT comes to the forefront as a well-known approach to help individuals develop their own understanding about the sources of their anxiety. CBT also presents a new understanding for TA by restructuring these sources. Likewise, Butler et al. (2006) reported that CBT-based therapies are effective for different types of anxiety. Consequently, the skill-training program of overcoming FA and TA in the current study was based on CBT. Since 16.5% of the Turkish population is between the ages of 15-24 (Turkish Statistical Institute, 2015), research on FA may have a wide-reaching impact. As a consequence, this study targets the CBT-based FA and TA Skill-Training Program's effectiveness on Turkish university students' FA and TA.

## Method

### *Research Design*

This study was designed with a quasi-mixed method in which a researcher collects quantitative and qualitative data, reducing the required consolidation of this data (Teddle & Tashakkori, 2009). Several steps were followed in this study. First, the quantitative part of the study included a pretest, posttest, and follow up using a quasi-experimental design together with a matched pair design. Second, the qualitative data were examined to triangulate the data and generate more insights for the study.

### *Study Group*

Before the skill-training program began, the research ethics committee submitted the safety report of this research. Subsequently, an announcement about the skill-training program was published on the official website of the university denoting the official granting of permission. After that, 60 students applied to participate in the skill-training group and completed the Beck Depression Inventory (BDI) and Brief Symptom Inventory (BSI). Individuals suffering from psychological disturbances (such as depression) or recent traumatic experiences were not proper for group studies (Gucray, Cekici, & Colakkadioglu, 2009). On this basis, thirteen of these students were eliminated from the study group because of high scores from BDI and BSI.

One of the researchers interviewed all 47 applicants and completed the research instruments. In experimental studies, matching the experimental and control groups allows for the controlling of independent variables in terms of specific features (Cohen, Manion, & Morrison, 2007). Therefore, the applicants were matched, as control and experimental group, according to different variables such as FA (mean

TAI, PFEI, AMM scores), age, and gender. Later, one applicant was randomly selected for the experimental group and another applicant was randomly selected for the control group for internal validity. This selection process continued until 15 individuals were selected for both groups. During the sessions, one experimental group member dropped out and one member was randomly removed from the control group. Eventually, the study was conducted with 28 students (14 in each group) studying in different faculties at a public university in the Aegean Region of Turkey during the fall semester of the 2015-2016 academic year, all aged between 21 and 24 years (mean ages of the students in experimental and control groups were 20.21 and 20.92 years, respectively). Independent samples *t*-test was administered to determine if there are any statistically significant differences between PFEI and TAI pretest scores of the experimental and control groups, but no significant difference was found [ $t(26) = -1.07$ ;  $p > .05$ ;  $t(26) = 1.53$ ;  $p > .05$  respectively]. Mann Whitney U test was applied to determine whether or not there was a significant difference between pretest of the experimental and control groups as pretest scores for AMM did not meet normality assumption. No significant difference was found in terms of pretest scores between two groups ( $U = 83.50$ ,  $p > .05$ ).

#### *Research Instruments*

*Personal information form (PIF)*. This form was designed by the researchers and contained questions about demographic information, psychiatric history, and trauma experience history of the participant.

*State-trait anxiety inventory (STAI)*. The scale was developed by Spielberger, Gorsuch and Lushene (1970), and adapted to Turkish by Oner and Le Compte (1985). The STAI consists of two different subscales: state and TA, with 20 items in each subscale. In this study, only the trait anxiety subscale (TAI) was used. Items are scored between 1 (almost never) and 4 (almost always). On the Turkish form of the scale, the Kuder-Richardson (alpha) reliability coefficient ranged from .83 to .87. The total item reliability of the scale is between .34 and .85. The Turkish version of STAI has good validity and reliability (Oner & Le Compte, 1985).

*Positive future expectations inventory (PFEI)*. This scale aims to measure positive expectations regarding the participant's personal future (Imamoglu, 2001). This scale is a five-item scale with items scored between 1 (completely disagree) and 5 (completely agree). The Cronbach's alpha level of the PFEI was .85 and the test retest reliability was .72.

*Frost multidimensional perfectionism scale (FMPS)*. The FMPS aims to evaluate perfectionism in a multidimensional way. The FMPS was developed by Frost, Marten, Lahart and Rosenblate (1990), and adapted to Turkish by Kagan (2011). This scale consists of 35 items and six subscales. In this study, only the "anxiety of making mistakes" (AMM) subscale was used. The items are scored between 1 (completely disagree) and 5 (completely agree). Pearson correlations of psychological variables with the scale scores were found to be adequate for the Turkish version of the scale. The overall internal consistency was 0.91. The construct validity of the scale is satisfactory for subscales and ranges between 0.31 and 0.82.

*Beck depression inventory (BDI)*. The BDI is a 21-item tool to detect emotional, cognitive, and motivational symptoms during depression (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Items are scored on a three-point scale and the total score ranges from 0 to 63. The Turkish properties of the scale were studied by Hisli (1988) and the reliability coefficient is .65. The split-half reliability of the scale is .78 for student groups and .61 for depressive patients. As a result, Hisli (1988) reported that the scale has a good reliability and validity.

*Brief symptom inventory (BSI)*. The BSI is a 53-item, 5 point (0-4) self-report scale developed by Derogatis (1992) and adapted into Turkish by Sahin and Durak (1994). This tool aims to evaluate psychological distress and psychiatric disorders in people. The internal reliability of the Turkish form ranges from .55 to .86 for sub-scales. The Turkish form of the BSI is five factor and factor loadings range between .75 and .87. The Turkish version of form of BSI is reported to have a good reliability and validity (Sahin & Durak, 1994).

*General evaluation of group processes (GEGP)*. The general evaluation form, developed by De Lucia-Waack (2006) and adapted into Turkish by Colakkadioglu and Gucray (2012), was revised for the current study and applied to the group members. It aims to determine group participants' personal experiences about group studies. Three experts from the Counseling Psychology Department read the revised GEGP form and the final version of the form was designed based on their feedback.

#### *Procedure*

Quantitative data were analyzed with SPSS version 17.0. The normal distribution of participants' scores was examined with the Shapiro-Wilk test and the PFEI scores for pretest and posttest were normally distributed ( $p > .05$ ). Homogeneous distribution of variances between groups was examined by F test and homogeneous variance for PFEI was determined to be  $p > .05$ . The equality of covariance matrix was checked by M test of Box and equality of covariance matrixes hypothesis was accepted ( $F = 1.959, p > .05$ ). Hence, a mixed-design analysis of variance was applied to the PFEI scores.

For TAI, pretest scores appeared to meet normal distribution requirement ( $p > .05$ ), but posttest scores do not match for the control group ( $p < .05$ ). Furthermore, the control group's AMM scores did not match the normality assumption in terms of the pretest. This study used an independent sample *t*-test for the analysis of the TAI scores of the experimental and control groups and a Mann Whitney U test for analysis of the TAI posttest scores and AMM pretest and posttest scores. Follow-up test scores of each scale showed normal distribution ( $p > .05$ ). Posttest and follow-up scores of the experimental group were compared by using paired samples *t*-test. The significance level was set at  $\alpha = .05$ .

Qualitative data obtained from the GEGP were examined using the thematic approach described by Simsek and Yildirim (2011). Researchers listed all the expressions of participants, including 87 significant statements. Accordingly, to explore the degree of reliability, the relation between two researchers' codes was

computed and the consistency between their coding was 87.68%. The coding process led to the creation of categories and ultimately to the identification of themes.

For internal validity, all sessions of the psycho-education program were recorded by a camera. The recordings were examined and supervised by three experts (one PhD and two MAs) in the field of Counseling Psychology to determine whether the applications were consistent with the skill training program. As a precaution to ensure external validity, applicants with high BDI and BSI scores were excluded with the aim of constructing a study group that was a better representative of community population.

#### *Experimental Praxis*

Researchers designed eight sessions of skill-training program inspired by Robichaud and Dugas's (2006) CBT program protocol used for generalized anxiety disorder, with the idea that FA has some similarities with the physical, emotional, and cognitive dimensions of general anxiety disorder. Additionally, the skill-training program was built on a structure of applications, objectives, and practices (De Lucia-Waack, 2006). Four counseling psychologists (one PhD and three MAs) and one specialist in curriculum development (MA) reviewed the program. Each session lasted approximately 90 minutes. Data collection instruments (TAI, PFEL, AMM, GEGP) were applied to the group members immediately after the last session. Follow-up measures were collected four weeks after the last session.

Various basic CBT techniques, such as cognitive restructuring, goal setting, role-playing, relaxation, and homework, were used in particular sessions. *Session I* was designed to allow group participants to meet each other and then the group leader introduced the format of the sessions. *Session II* ensured that participants were informed about the cognitive-behavioral approach by means of the ABC model, which is a core model of CBT. *Session III* focused on the core components of FA within an anxiety cycle, specifically designed for FA. *Session IV* covered functional and dysfunctional anxiety about future realization. *Session V* focused on anxious perspective blocking and an acceptance perspective to help individuals overcome future time uncertainty. *Session VI* focused on the acceptance and development of new skills for dealing with non-controllable variables in life. A new acceptance toolbox was introduced to the participants. *Session VII* was a complete relaxation experiment aimed at helping students learn new relaxation skills. *Session VIII* aimed to help participants realize when they reached their initial personal goals for this group.

## **Results**

#### *Quantitative Results*

Table 1 shows statistical data relating to participants' PFEL, TAI, and AMM scores in the experimental and control groups.

**Table 1.**

Mean and Standard Deviation values for PFEI, STAI and AMM pretest, posttest, and follow-up test scores of students in the experimental and control groups

	Pre-test		Post-test		Follow up Test	
	$\bar{X}$	Sd	$\bar{X}$	Sd	$\bar{X}$	Sd
Experimental Group						
PFEI	15.36	3.46	21.21	2.39	20.79	2.46
TAI	51.64	9.33	38.79	9.98	39.50	9.51
AMM	24.86	7.45	16.36	5.77	15.14	4.64
Control Group						
PFEI	16.86	3.94	16.14	3.04	16.71	3.91
TAI	47.00	6.48	47.29	4.63	47.07	5.78
AMM	22.50	7.77	22.36	6.87	22.57	7.27

As shown in Table 1, pretest, posttest, and follow-up PFEI test scores of the experimental group were 15.36 (Ss=3.46), 21.21 (Ss=2.39) and 20.79 (Ss=2.46), respectively. Similarly, the pretest, posttest, and follow-up TAI test scores of the experimental group were 51.64 (Ss=9.33), 38.79 (Ss=9.98) and 39.50 (Ss=9.51), respectively. The AMM score of the experimental group was 24.86 (Ss=7.45) for pretest, 16.36 (Ss=5.77) for posttest, and 15.14 (Ss=4.64) for follow-up test. Additionally, the control group's pretest, posttest, and follow-up PFEI scores were 16.86 (Ss=3.94), 16.14 (Ss=3.04), and 16.71 (Ss=3.91), respectively. Similarly, the control group's pretest, posttest, and follow-up TAI scores were 47.00 (Ss=6.48), 47.29 (Ss=4.63), and 47.07 (Ss=5.78), respectively. The AMM scores of the control group were 22.50 (Ss=7.77) for pretest, 22.36 (Ss=6.87) for posttest, and 22.57 (Ss=7.27) for the follow-up test. Results of the mixed-design analysis of variance are shown in Table 2, demonstrating that the PFEI, TAI, and AMM scores of the students in the experimental group were significantly different than those in the control group. Table 2 also shows the four-week long effect of skill-training program.

**Table 2.**

Mixed Design Analysis of Variance Results of PFEI

The Source of Variance	Sum of Squares	Sd	Mean Square	F
Between groups	427.36	27		
Group	44.643	1	44.643	3.033
Error	382.717	26	14.720	
Within groups	412.000	28.000		
Measure (pretest-posttest)	92.571	1.000	92.571	14.302**
Group x Measure	151.143	1.000	151.143	23.351**
Error	168.286	26.000	168.286	
Total	839.36	55.000		

\*p<.05, \*\*p<.001



According to the ANOVA results for mixed measures shown in Table 2, the main effects were found to be insignificant [ $F(1-26)=3.03$ ;  $p>.05$ ], but the measurement main effect [ $F(1-26)=14.302$ ;  $p<.001$ ] and group\*measure interaction effect [ $F(1-26)=23.351$ ;  $p<.001$ ] were found to be significant. The significant group\*measure interaction effect indicated that participating in the experimental praxis has different effects on the pretest and posttest PEFI scores. The Mann Whitney U test was administered to determine whether there was a statistically significant difference in terms of TAI and AMM between groups, and results are illustrated in Table 3.

**Table 3.**

*Mann Whitney U Test Results of TAI and AMM Post-Test Scores of Experiment and Control Groups*

		n	Mean Rank	Sum of Ranks	U
STAI	Experimental	14	11.00	154.00	49.00*
	Control	14	18.00	252.00	
AMM	Experimental	14	10.64	149.00	44.00*
	Control	14	18.36	257.00	

$p<.05$

As shown in Table 3, the TAI and AMM scores of the experimental group were significantly different (TAI,  $U=49.00$   $p<.05$ ; AMM,  $U=44.00$ ,  $p<.05$ ). As expected, the mean TAI and AMM scores decreased. These findings demonstrate that the skill-training program was effective on students' trait anxiety and anxiety of making mistakes.

To examine the four-week long effect of the program on the experiment group, the PFEI, TAI, and AMM posttest and follow-up scores were compared using the paired sample *t*-test. According to the paired sample *t*-test results, the PFEI, TAI, and AMM scores of the experimental group showed no significant difference with the mean of posttest and follow-up test ( $t(14)=.343$ ,  $p>.05$ ;  $t(14)=-.733$ ,  $p>.05$ ;  $t(14)=-.688$ ,  $p>.05$ ), respectively. These results indicate that the effects of the skill-training program continued for four weeks.

#### *Qualitative Results*

The answers of the GEGP were categorized and subsequently grouped into themes, as shown in Table 4.

**Table 4.***Examples of Invariant Structure, Their Corresponding Categories, and Emerging Themes*

Examples of Participants' Expressions	Categories	Themes
When I change my perspective about a situation, the meaning of it is changing.	Realization of alternative thinking	
My irrational way of thinking cause anxiety about future.	Realization of irrational automatic thoughts	Reconstructing of future anxiety related thoughts
I have learnt how to think rationally.	Learning rational thinking	
I have learnt my thinking style determine my actions.	Thoughts' effects on behaviors	
I can cope with my problems step by step.	Separating problems into parts	
Now I see I could not be so patient for life goals requiring time.	Ability to understand importance of time to reach long term goals	Problem solving about future possibilities
There will be always trammels, as well as alternative ways to solve them.	Perceived problem solving efficacy	
My hope and future commitment increased.	Future hope	
It is better not trying to control uncontrollable variables of my future.	Tolerance of uncertainty	Recognizing future anxiety and future hope
I discovered the triggers of my FA.	Components of FA	
Worry and anxiety is different, hyper alertness is useless.	Dysfunctional worry	
Imagination technique helped me a lot to imagine a hopeful future.	Imagination	
Breathing style is very important to control my body.	Breathing technique	Relaxation methods
Relaxation methods will be useful to cope with psychical symptoms of anxiety.	Relaxation	

As shown in Table 4, thoughts about the “reconstructing of future anxiety” were related to group members’ responses about their awareness of the importance of their perspective on their emotional mood and behaviors about FA. They also reported that changing FA is possible by changing their perspective with techniques. It is possible to infer from the theme “problem solving about future possibilities” that some of the participants realized that their level of perceived problem solving ability is related to feeling more secure about possible future threats. Some of them noted that instead of insisting on dysfunctional problem solving methods, they can feel more constructive by using conditioned problem solving methods with their current problem.

It can clearly be inferred from the theme “recognizing future anxiety and future hope” that participants were not used to tolerating uncertain events, but instead tried to control uncontrollable variables. They are now aware of the core components of FA and have alternative ways of dealing with such emotions. Additionally, they

realized that acceptance of uncertain life events is the key to coping with FA. As understood from the “relaxation methods” theme, the CBT program contains stress reducing methods and thought restructuring methods. Some participants remarked that they were impressed with the efficacy of the relaxation methods. To sum up, the emerging themes were consistent with the aims of each session. Results of the qualitative data analysis show that the findings of the GEGP support the findings of the quantitative data collection instruments.

### Discussion and Conclusion

According to the quantitative findings of the study, university students’ positive future expectations, TA, and anxiety of making mistakes scores decreased after CBT-based group skill-training aimed at overcoming FA. In addition, the control group’s positive future expectations, TA, and anxiety of making mistakes scores were not significantly different before and after the study. These results demonstrate that the decreasing FA and TA of university students was a result of experimental applications. This result is consistent with the literature relating to TA, as a great number of studies have proposed the efficacy of CBT for anxiety (Butler et al., 2006; Gould, Otto, Pollack, & Yap, 1997; Hofmann & Smits, 2008; Johnston, Titov, Andrews, Dear, & Spence, 2013; Karahan, Yalcin, & Erbas, 2014; Kendall & Southam-Gerow, 1996; Melnyk et al., 2015; Monti, Tonetti & Bitti, 2014; Stallman, Kavanagh, Arklay & Bennett-Lev, 2016). Although there have been no experimental studies specifically about FA, many studies focusing on anxiety treatment with CBT report similar results to the present study (Dugas et al., 2003; Norton & Price, 2007; Silverman et al., 1999). Cognitive-behavioral skill training for overcoming FA and TA, which was developed for the current study, essentially aimed to eliminate the intolerance of uncertainty by restructuring beliefs about the future. Then this program targeted helping participants accept their internal experiences about future perspectives and learn effective relaxation methods. CBT-based group sessions about overcoming FA were also structured as Bieling et al. (2006) clarified.

According to Lang and Craske (2000), anxious thinking about the future has small indications that individuals can be aware of. The group practices in this study helped individuals become more aware of their own hypothesis about the future and determine which of their beliefs were rational and which were irrational. Group members also had an opportunity to set up a situation to determine whether the hypothesis was valid or not. With the support and assessment of other group members, the process of testing these hypotheses became more powerful. In this awareness process, group members modified their predictions about future life according to new information, which is known as restructuring in CBT (Lang & Craske, 2000).

The qualitative findings of the study have implications about the effectiveness of skill training group applications. First, group members indicated that they were satisfied with the group practices and reached their own group goals with the

sessions and homework. Second, group members reported that their irrational thoughts about the future turned into rational thoughts. They also realized that rational thinking about future life leads to a proportionate emotional mood with the future reality. These results are consistent with the related literature. In a study on general anxiety, Johnston, Titov, Andrews, Dear, and Spence (2013) showed that using cognitive strategies for changing ideas promotes healthy behaviors and helps people develop skills for coping with disordered emotions. Melnyk et al. (2015) also used a CBT-based skill training program for cognitive restructuring, which ultimately decreased the anxiety levels of university students. As a result, group members felt more controlled and relaxed about uncertainty of their future and current anxiety.

Third, group members reported having a more balanced view about future life and a new focus on their present life, as well as their academic and career responsibilities. Eventually, they stopped focusing on their future anxiety thinking and started generating thoughts about a more secure future. Fourth, most group members were very satisfied with the session about gaining acceptance skills. They realized that acceptance was not the same as confirming or submitting, but actually something more than that. They ultimately felt more relaxed and set up a toolbox during the group session to develop acceptance skills. Lastly, most group members noted that they were pleased to have learned relaxation methods that they could use during anxious times. Similarly, Johnston et al. (2013) also reported that relaxation methods were efficient for coping with emotional disorders.

One of the group members, an exchange student from another Turkish university, dropped out of the group in the fourth session. It is possible that this member could not adapt to his new environment or the group members. In conclusion, recent years have witnessed an increase in the number of cognitive-based anxiety therapy studies intended to train individuals to cope with their anxieties. Yet research to determine the specific kind of anxiety, FA, for further applications has recently become more prominent. Training individuals to restructure their beliefs about their future perspective may help prevent a particularly depressive population. The present study found that a skill-training program based on cognitive behavioral therapy positively affected the future perceptions of participants in an expected way. It is hoped that this study will help illuminate a wide range of benefits for researchers and practitioners.

#### *Limitations and Recommendations*

This study has several limitations. First, participants were selected from a community sample and were all students from a public university. Second, there is no instrument to directly measure FA for Turkish population, so future anxiety was examined with different variables related to FA. Third, this study's qualitative data is limited with a general group process evaluation form, which is a self-report form.

Similar research should investigate the effectiveness of FA and TAI skill-training programs with different age groups and different samples. Further research should focus on developing a measurement about FA. Future researchers can also benefit from different techniques, such as observation and interviews in the collection of qualitative data. FA and TA are common facts for competitive societies and cognitive-behavioral interventions can help people cope more effectively.

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### **Bilişsel Davranışçı Kurama Dayalı Beceri Eğitiminin Üniversite Öğrencilerinin Gelecek Kaygısı ve Sürekli Kaygılarına Etkisi**

#### **Atf:**

- Kaya, S., & Avcı, R. (2016). Effects of cognitive-behavioral-theory-based skill-training on university students' future anxiety and trait anxiety. *Eurasian Journal of Educational Research*, 66, 281-298  
<http://dx.doi.org/10.14689/ejer.2016.66.16>

#### **Özet**

*Problem Durumu:* Gelecek, doğası gereği belirsizdir. Bu belirsizlik gelecekle ilgili endişe hissine neden olabilir. Aslında endişe temelde gelecekteki olasılıklar ve tehditlerden beslenir. Kaygı ise strese neden olan kontrol edilemez bir endişe halidir. Gelecek kaygısı (GK) kaygının özel bir formudur ve kişisel geleceğe dair risk içeren değişimlerden doğacak belirsizliklere katlanamama ve bundan dolayı korku ve kaygı duyma durumudur. Geleceğe yönelik kaygılı bir yaklaşım ise, bireylerin motivasyonlarını ve sağlıklı planlama becerilerini etkileyerek, kendini beslemeye devam eder.

Bilişsel model, düşünce biçimlerinde değişim olduğunda, bunun duygu ve davranışlara yansıdığını ifade eder. Bu nedenle, GK ile baş etmede, gelecekle ilgili olumsuz inançları yeniden yapılandırmak GK müdahalelerinde temel konudur. Bilişsel-davranışçı terapi yaygın kullanılan bir terapi yöntemi olup, özellikle çeşitli



kaygı tedavilerinde etkililiği kanıtlanmıştır. Literatürde kaygı ile baş etme konusunda pek çok araştırma bulunsa da, GK ile yapılan deneysel çalışmaya rastlanmamıştır.

*Araştırmanın Amacı:* Türkiye'de toplam nüfusun %16.5'ini genç nüfusun oluşturduğu düşünüldüğünde, genç bireylerle yapılacak bu çalışmanın yaygın etkisinin olacağı düşünülmektedir. Ayrıca, GK ile ilgili baş etme yöntemleri, bireylerin geleceğe daha güvenli bakması ve yaşamlarının verimliliğini artırması açısından önemli görülmektedir. Bu çalışmanın amacı, bilişsel davranışçı yaklaşıma dayalı olarak geliştirilen gelecek kaygısıyla baş etme beceri eğitimi grup uygulamalarının üniversite öğrencilerinin gelecek kaygılarına etkisini araştırmaktır.

*Araştırmanın Yöntemi:* Bu araştırma yarı karma desene göre tasarlanmıştır. Yarı karma desende nitel ve nicel veriler toplanır, sonrasında nitel ve nicel bulguların bütünleşmesi azdır ya da yoktur. Çalışmaya başlamadan önce araştırmanın uygulanabilirliği açısından etik kurul raporu alınmıştır. Üniversite yönetiminden gerekli izinler alındıktan sonra, üniversite internet sayfasından gelecek kaygısıyla baş etme beceri eğitim programı yapılacağına dair ilana çıkmıştır. 60 öğrenci başvuruda bulunmuş ve depresyon puanları yüksek olanlar ile son zamanlarda travma yaşantısı olanlar (13 kişi) araştırmaya dahil edilmemiştir. 47 kişi ile ön görüşme yapılmış ve veri toplama araçları uygulanmıştır. Adaylar arasından deney ve kontrol grubu için sırayla ve seçkisiz olarak üyeler seçilmeye başlamış ve her grup için 15 üye olana kadar bu süreç devam etmiştir. Uygulamalar esnasında bir üye grubu bıraktığı için kontrol grubundan da bir üye çıkarılmıştır. Deney ve kontrol gruplarının Sürekli Kaygı Ölçeği (SKÖ), Olumlu Gelecek Beklentileri Ölçeği (OGBÖ) ve Hata Yapma Beklentileri Ölçeği'nden (HYBÖ) aldıkları ön-test puanları arasında anlamlı farklılığın olmadığı belirlenmiştir [Sırasıyla  $t(26)=-1.07$ ;  $p>.05$ ;  $t(26)=1.53$ ;  $p>.05$ ;  $U=83.50$ ,  $p>.05$ ].

Katılımcılar Ege Bölgesi'ndeki bir üniversitenin farklı bölümlerinde devam eden 21-24 yaş arası bireylerdir. Deney ve kontrol grubu için yaş ortalaması sırasıyla 20.21 ve 20.92'dir. Deneysel uygulamalar kapsamında oturumlar, Robichaud ve Dugas'ın genel anksiyete ile baş etmede önerdiği BDT temelli protokol dikkate alınarak geliştirilmiştir. 8 oturumdan (her biri 90 dakika) oluşan program 4 uzman tarafından incelenmiş ve düzeltilmiş, programa son hali verilmiştir. İzleme çalışması için veriler son oturumdan dört hafta sonra toplanmıştır. Oturumlarda bilişsel davranışçı yaklaşımın önerdiği teknikler kullanılmıştır. Her oturum duygu-durum kontrolü ile başlamış, önceki oturumun özetlenmesi, ödev kontrolü, ısınma egzersizi, güncel oturumun etkinliği, güncel oturumu değerlendirme ve sonraki oturumun ödevi şeklinde devam etmiştir.

Elde edilen nicel veriler SPSS 17.0 ile analiz edilmiştir. Normal dağılım gösteren ölçme araçları için karışık ölçümler için ANOVA testi kullanılmış, normal dağılım göstermeyen ölçümlerde Mann Whitney U testi uygulanmıştır. Nitel verilerin analizinde içerik analizi tekniğine başvurulmuştur. Katılımcılardan Grup Süreci Genel Değerlendirme Formu aracılığıyla elde edilen verilerle kodlama işlemine

gidilmiş, iki araştırmacı tarafından yapılan iki ayrı kodlaması arasında %87.68 oranında tutarlılık görülmüştür. Elde edilen kodlar ile temalar oluşturulmuştur.

*Araştırmanın Bulguları: Nicel bulgular.* Deney ve kontrol grubundaki üyelerin OGBÖ'den aldıkları ön-test ve son-test puanlarını incelemeye yönelik yapılan karışık ölçümler için iki faktörlü ANOVA testi sonucuna göre, grubun ana etkisi istatistiksel olarak anlamsızken [F(1-26)=3.033; p>.05], ölçümün ana etkisi [F(1-26)=14.302; p<.001] ve grup\*ölçüm ortak etkisi [F(1-26)=23.351; p<.001] istatistiksel olarak anlamlı bulunmuştur.

SKÖ ve HYBÖ ile elde edilen puanlar ile Mann Whitney U testi yapılmıştır. Deney grubunun bu iki ölçme aracından aldıkları puanlar, kontrol grubunun puanlarına göre anlamlı olarak farklılaşmaktadır (SKÖ, U=49.00 p<.05; HYBÖ, U=44.00, p<.05).

*Nitel bulgular.* Grup Süreci Genel Değerlendirme Forumu'ndan elde edilen ilk bulguya göre, grup üyelerinin tamamına yakını kişisel amaçlarına büyük oranda ulaştığını ifade etmiştir. Elde edilen diğer bir bulgu da, grup üyeleri düşünce davranış ve duygu ile ilgili değişim farkındalıkları olduğunu belirtmiştir.

Son olarak üyelerin doldurduğu Genel Değerlendirme Formu'ndan elde edilen yanıtlar kodlanarak, kodlar kategoriler haline almıştır. Elde edilen kategoriler ile temalar oluşturulmuştur. Bu temalar şunlardır: GK ile ilgili düşüncelerin yeniden yapılandırılması, gelecekteki ihtimallerle ilgili problem çözme becerileri, GK'yi tanıma ve gelecek umudu, rahatlama metotları. Tüm nitel bulgular, beliren temaların oturum amaçlarıyla örtüştüğü yönünde yorumlanmıştır. Bu noktada, nitel bulgular aynı zamanda, nicel bulgularda deney grubu lehine oluşan değişimi destekler niteliktedir.

*Araştırmanın Sonuçları ve Önerileri:* Nicel bulgularda elde edilen sonuçlara göre bilişsel davranışçı yaklaşım temelli GK ile baş etme psiko-eğitim programının, üniversite öğrencilerinin olumlu gelecek beklentilerini artırmada, sürekli kaygılarını ve hata yapma beklentilerini düşürmede etkili olduğu söylenebilir. Bu sonuç kaygı ile ilgili bilişsel davranışçı yaklaşım temelli müdahalelerin rapor edildiği çalışmalarla benzerlik göstermektedir.

Nitel bulgulardan elde edilen sonuçlar da, grup üyelerinin geleceğe yönelik mantıksız düşüncelerinin yerini rasyonel düşüncelerin aldığı ve mantıklı düşüncelerle birlikte üyelerin kaygılarında azalma meydana geldiği ve daha iyi hissettikleri görülmektedir. Bu bulgular benzer çalışmalarla paralellik göstermektedir.

Bu araştırmanın bir sınırlılığı, grup üyelerinin klinik olmayan örneklemden seçilmesidir. Benzer çalışmalar farklı örneklemlemlerle yürütülebilir. İkinci bir sınırlılık, GK'yi doğrudan ölçen bir ölçme aracının olmaması ve ölçümlerin GK ile ilişkili değişkenlerle yapılmış olmasıdır. Gelecek araştırmalarda benzer bir çalışma gözlem ve görüşme gibi güçlü nitel araştırma metotlarıyla yapılabilir.

*Anahtar Kelimeler:* Gelecek kaygısı, psiko-eğitim grubu, üniversite öğrencileri.