Research Article

Developing University Students Coping Skills with Academic Procrastination Behavior: A Cognitive Behavioral Theory Based Psychoeducation Practice

Özlem ÇAKMAK TOLAN [1] *

[1] *Dicle University, Diyarbakır, Turkey ozlemtolan@gmail.com,*

* *Corresponding Author: ozlemtolan@gmail.com*

Article Info	Abstract
	This study examined the effect of a psychoeducation program for coping with academic procrastination based on cognitive behavioral therapy on academic procrastination behaviors of university students. The "Academic Procrastination Scale" was used to determine students' academic procrastination behaviors. The research group consists of a total of 24 students. After identifying the participants, the researcher prepared an 8-session psychoeducation program with each session lasting 90 minutes on average. The non-parametric Mann Whitney-U test was used to determine whether there was a significant difference between the pre-test and post-test mean scores of the experimental and control groups. According to the results obtained from the study, it was seen that the psychoeducation program developed based on the cognitive behavioral approach was effective on the decrease in the academic procrastination behaviors of the university students in the experimental group.

Introduction

Procrastination is a common behavior that occurs in different developmental periods and for different reasons. Solomon and Rothblum (1984) defined the concept of procrastination as the tendency to delay starting and completing a task that needs to be done or steps that need to be taken to achieve certain goals. Ferrari, O'Callaghan, and Newbegin (2005) stated that procrastination behavior is a common problem in modern society. Majority of people tend to procrastinate about the work that needs to be done at different periods of their lives. This tendency is inherent in some people and others experience this problem in certain situations and areas (Klingsieck, 2013). Hammer and Ferrari (2002) reported that 20% of adults experience chronic procrastination in terms of performing daily tasks.

The concept of academic procrastination refers to the tendency to delay or postpone tasks and activities related to learning and studying. Senecal, Koestner, and Vallerand (1995) defined academic procrastination as delaying one's tasks in academic subjects due to anxiety about making mistakes. Rothblum, Solomon, and Murakami (1986) defined academic procrastination as the tendency to frequently postpone academic tasks such as studying and preparing for exams and experiencing problematic levels of anxiety related to this procrastination. Klingsieck (2013) analyzed procrastination in four dimensions. First, procrastination is considered a personality trait, and, second, as a motivational force. The third dimension focuses on the clinically relevant dimension of procrastination and is associated with anxiety, depression, and stress. Finally, the situational dimension focuses on the contextual aspects and characteristics of procrastination. Although procrastination is seen in all kinds of situations, academic procrastination is detrimental to achievement and is more common among students. Missing deadlines for submitting documents, postponing administrative tasks related to academic work, forgetting to return library books, missing classes, or delaying submitting assignments are among the consequences of academic procrastination (Scher & Osterman, 2002). In a study conducted by Solomon and Rothblum (1984) on the causes of academic procrastination, they found dimensions such as fear of failure, evaluation anxiety, perfectionism, lack of self-confidence, task avoidance, and task dislike. According to these researchers, academic procrastination is not a deficiency in study habits or time management but a complex interaction of cognitive, behavioral, and emotional components.

As a result of academic procrastination, reports suggest that problems such as loss of time, deterioration of health, decrease in long-term learning, low self-esteem, anxiety, and fear of failure may occur (Wolters, 2003). However, it is emphasized that academic procrastination is an obstacle to academic success and it is suggested that it causes students to experience stress and anxiety because it reduces the quality and quantity of learning (Ferrari et al., 1995). Different studies emphasize that the tendency of problematic academic procrastination among university students is between 70% and 95% (Steel, 2007), and the rate of chronic or severe procrastination is between 20% and 30% (Ferrari et al., 1995; McCown & Johnson, 1991; Solomon & Rothblum, 1984). Reports suggest that academic procrastination is common among university students (Steel, 2007) and has negative consequences on their academic achievement. Furthermore, there is a relationship between academic

procrastination and low self-esteem, perfectionism, depression, and anxiety (Ferrari & Diaz Morales, 2007). The most common consequence of academic procrastination is poor individual performance and negative interference with functioning (Dewitte & Schouwenburg, 2002).

It is stated that students who exhibit academic procrastination behaviors have negative thoughts about many issues such as failing courses, prolonging their education period, and dropping out of university. The negative consequences of academic procrastination on academic performance and psychological and physical health reveal the need for intervention programs. Studies suggest that cognitive behavioral therapy (CBT) may have positive effects on intervention studies on this issue (Pychyl & Flett, 2012). Various studies emphasize the importance of cognitive and emotional dimensions that are effective on academic procrastination (Çakıcı, 2003; Knaus, 2010). Burka and Yuen (2008) stated that the mechanisms in cognitive, emotional, and behavioral dimensions are important in people who exhibit procrastination behavior and that these dimensions create behavioral patterns and a cycle of repetition-postponement at different intervals in certain periods of their lives. Knaus (2010) emphasized that the primary trigger that influences procrastination cycles is the way individuals think. Research states that the use of CBT that addresses unrealistic expectations, low self-efficacy, and negative thoughts in coping with academic procrastination may have positive results (Pychyl & Flett, 2012). Moreover, Neenan (2008) emphasized that challenging irrational thoughts and beliefs, developing goals, and creating strategies that can be applied while performing unpleasant tasks can be implemented with cognitive-behavioral therapy-oriented interventions. Flett, Stainton, Hewitt, Sherry, and Lay (2012) stated that automatic negative thoughts play a critical role in procrastination behaviors. Balkıs (2013) and Balkis, Duru, and Bulus (2013) concluded that students with high academic achievement had low levels of academic procrastination.

Walker (2004) suggested that one of the most effective methods for dealing with academic procrastination is group therapy. Unlike other approaches, the group process is likely to facilitate a change in patterns of thinking, feeling, and behavior by providing mutual support, challenge, and diversity among members. Furthermore, it is emphasized that group members can also benefit from feedback from others in the group. There has been an increase in experimental studies on academic procrastination in recent years. Studies examining the effectiveness of intervention programs in coping with academic

procrastination are limited in Turkey (Kağan, 2010). Kağan (2010) implemented an academic procrastination prevention program based on the rational emotive behavioral approach on university students for eight weeks. According to the results, there were significant differences in the academic procrastination, cognitive distortions, and time management scores of the students in the experimental group. In addition, Qiu (2008) used CBT-oriented 90-minute group sessions with students with academic procrastination. Within the scope of this study, goal setting, organizing plans, time management, changing dysfunctional cognitions, and relaxation training techniques were used. As a result of the interventions, CBT-based techniques were found to be effective in remediation. Horebeek, Michielsen, Neyskens, and Depreeuw (2004) conducted a CBT-based group study consisting of 10 sessions and found that there was a decrease in the academic procrastination behaviors of the students participating in the study. Similarly, Pychyl and Binder (2004) conducted a CBT-based group study consisting of six sessions on university students with academic procrastination and determined goals such as increasing insight, changing the thought patterns that maintain academic procrastination, and dividing the work into small parts. The study revealed that there was a decrease in academic procrastination behaviors among university students. A study conducted by Schubert, Walker and Stewart (2000) consisted of six sessions to increase university students' coping skills with academic procrastination. Throughout the sessions, activities were conducted to help participants learn cognitive, behavioral, and motivational strategies to cope with academic procrastination. According to the results, there was a significant decrease in the academic procrastination scores of the experimental group compared to the control group.

In light of the aforementioned literature studies reviewed, researchers believe that a psychoeducation program based on the cognitive behavioral approach may have positive results in reducing academic procrastination behaviors of university students. In this context, the study aimed to reduce academic procrastination behavior with the program of coping with academic procrastination behavior based on the CBT approach prepared for university students. The study tested the following hypotheses:

1. There will be a statistically significant decrease in the scores of the students in the experimental group participating in the psychoeducation program for coping with academic procrastination based on the CBT approach compared to the students in the control group.

2. The post-test score distributions of the students in the experimental group who participated in the psychoeducation program for coping with academic procrastination based on the CBT approach were significantly lower than the pre-test score distributions.

Method

The design of the research was pre-test-post-test model (2×2) with experimental and control groups, and the Academic Procrastination Scale was applied to the experimental and control groups as a pre-test before starting the research. At the next stage, while the Program for Coping with Academic Procrastination Behavior, consisting of eight sessions, was applied to the experimental group, no application was made to the control group. At the end of the applied program, the Academic Procrastination Scale was applied again to the experimental and control groups as a post-test.

Research Group

Experimental designs are the designs in which the participants in the randomly created sample are randomly assigned to the groups (Büyüköztürk, 2007). In this context, in the current study, the participants in the randomly formed sample were randomly distributed to the experimental and control groups by lottery method in line with the purpose of the research. The research group consisted of a total of 24 participants (experimental group: 6 females and 6 males; control group: 5 females and 7 males) aged 19–21, who were continuing their education at Dicle University Faculty of Literature. Among the students, 12 (50%) were sophomores and 12 (50%) were juniors. For the selection of the participants, an announcement was posted on the department notice boards and 250 students filled out the Academic Procrastination Scale (APS). After the evaluation, individual interviews were conducted with students with high academic procrastination scores. In the preliminary interview based on the principle of volunteering, the students were informed about the duration, process and confidentiality of group counseling. These volunteer students were randomly assigned to two groups by drawing lots. Then, these two groups were randomly divided into experimental group and control group by drawing lots. As a result of the assignment made in this way, it was tried to have 12 and 12 volunteers in each group (experimental and control). Students who were in their first year of study at the relevant faculty were excluded from the study because they were in the process of adapting to university life. In the interviews conducted as a result of the pilot study, senior students

were excluded due to the future anxiety they were experiencing and the exams they were preparing for at the time.

Data Collection Tools

Personal Information Form: The Personal information form created by the researcher aimed to collect demographic information such as gender, grade level, and age.

Academic Procrastination Scale (APS): The study used the APS developed by Çakıcı (2003) to determine the students' academic procrastination behaviors. Twelve of the items in the scale are negative and seven (1, 4, 7, 9, 11, 13, and 17) are positive statements. The scale is scored unidirectionally so that those who chose "it does not reflect me at all" to a statement containing academic procrastination receive 1 point and those who chose "it reflects me completely" receive 5 points. The highest and lowest scores that one can obtain from the scale are 95 and 19, respectively. A higher score on the scale indicates that students have a higher level of academic procrastination behavior. The Cronbach's alpha reliability coefficient of the scale was found to be .92. The first factor of the two-factor APS is "procrastination" and the second factor is "regular study habits." The Cronbach's alpha coefficients calculated for the first and second factors were .89 and .84, respectively.

Data Analysis

The study used the IBM SPSS-22 program to analyze the data obtained. Mean and standard deviation values were used in the descriptive analysis of the data. Furthermore, skewness and kurtosis values were examined for normality analysis of the pre- and post-test data of the experimental and control groups. For the normality assumption to be accepted, skewness and kurtosis values should be between −1.5 and + 1.5 (Tabachnick & Fidell, 2013); as a result, the data were normally distributed (Table 1). However, since the number of participants participating in the research in the experimental and control groups was less than 30, nonparametric analyzes were performed (Alpar, 2014). 12 participants were assigned to the experimental group in the intervention phase of the study, one participant could not be reached in the post-test phase. Therefore, the data of that participant were excluded from the data set. Non-parametric Mann Whitney-U test was used to determine whether there was a significant difference between the pre-test and post-test score averages of the experimental and control groups. Non-parametric Wilcoxon Signed Ranks test was used to determine whether there was a significant within-group difference between the pre-test and post-test scores of the experimental and control groups.

The Process

The Intervention Plan

Session 1: The session started with the group members and the group leader sitting in a circle. Group members were introduced with the warm-up activity. (Event: Everyone wrote their name on a card and pinned it to their chest; subsequently, the group members were asked to sit in a circle in alphabetical order within a certain time. This allowed the group members to make first contact and get to know each other. After the group members sat down, everyone shared their name, surname, and class information with each other). After introductions, the group leader explained the purpose of the study again to the group members and they determined the group rules and framework of the study together with the group members. Finally, the session was concluded by defining the variables in the subject of the group work and summarizing the first session.

Session 2: The session started by summarizing the previous session, explaining the agenda of the session, and practicing the warm-up exercise. The group members received brief information training about the cognitive behavioral approach. The group members worked on the relationship between events, thoughts, emotions and behaviors, problem-solving methods, automatic thoughts and cognitive distortions, characteristics of automatic thoughts and how they can be captured, cognitive distortions, and the formation of emotions with related activity papers and methods. Forms for homework on automatic thoughts and cognitive distortions were distributed, the session was summarized, and the session ended with participants receiving feedback from the group members.

Session 3: The session started with a summary of the previous session, talking about homework assignments, explaining the agenda of the session, and practicing the warm-up exercise. (Warm-up: Participants were asked to sort in arithmetic order until they reached the number of group members). Participants worked on content related to the academic procrastination behavior, members' awareness of their own "student" identity, members' recognition of the academic procrastination behavior and its cycle, ability to start an academic task, re-examination of the relationship between action–will, and reexamination of the relationship between action–will–persistence. Within the scope of the study, the "my personal goals" form was given as homework. The session ended with a summary, participants receiving feedback from the members, the assignment of homework, and a closing exercise. A female participant (F. A), who was a sophomore student, informed the

group leader at the end of the session that she could not further attend the sessions due to personal reasons.

Session 4: The session started with a summary of the previous session, talking about homework assignments, explaining the agenda of the session, and practicing the warm-up exercise. (Warm-up: What is time? This took place by playing charades). In this session, members worked on topics such as time, time perception and starting a task, members' cognitive awareness of time, starting to work and evaluating time, training group members on the ability to maintain a started academic task, members' recognition of the lens of inaction and the lens of action, and studies on "A Different Use of Time" in dealing with academic procrastination, and the leader gave the "Three Jobs I Do Not Want" form as homework. The session ended with a summary of the session, participants receiving feedback from the members, and the assignment of homework.

Session 5: The session started with a summary of the previous session, talking about homework assignments, explaining the agenda of the session, and practicing the warm-up exercise. (Warm-up activity: Color Color Color Colorful change of location) Group members worked on an activity about their life experiences in which they felt successful and unsuccessful in their lives and the aim was for them realize their strengths. The "Three Academic Tasks I Do Not Want" form was given as homework. The session ended with a summary of the session, participants receiving feedback from the members, and explanations about the homework.

Session 6: The session started with a summary of the previous session, a talk about homework, an explanation of the agenda of the session, and the warm-up exercise practice. The topic of the study was introduced with the title. "…….…… does not get studied, the study gets postponed." A study was conducted with the group members on how the modal of necessity "have to, must" affects behavior in the cognitive process. Additionally, the "kill motivation–keep the motivation alive cycle" was studied. The study was completed by addressing the conflict between academic procrastination behavior and modals of necessity. The session ended with a homework called "Through which lens are we looking," a summary of the session, feedback from the members, and explanations regarding the homework.

Session 7: The session started with a summary of the previous session, talking about homework assignments, explaining the agenda of the session, and practicing the warm-up

exercise. (Warm-up activity: The members were asked to say one word each about the family teacher approaches that affects success and create two separate poems from all the words that emerged so that the group could work together and observe how the cognitive processes were affected). With the sleep–wake–hypervigilance exercise, the leader divided the group into three and gave instructions to enable the members to recognize the positive stress level and recognize the situations where they are above and below this level.

"1st Group directive: What do you think about the state of sleepiness, wakefulness, and overstimulation when it comes to any academic task or responsibility?

2nd Group directive: When it comes to any academic task or responsibility, how do sleepiness, wakefulness, and overstimulation make you feel?

3rd Group directive: When it comes to any academic task or responsibility, how do sleepiness, wakefulness, and overstimulation affect your work and its results?"

After the members have talked about the directive among themselves, they share their thoughts with the large group. Breathing, relaxation, and safe place techniques were practiced with the group members. The leader gave homework for members to apply these techniques. The session ended with a summary of the session, participants receiving feedback from the members, and explanations about the homework.

Session 8: Evaluating the Learning Outcomes of Group Life and Saying Goodbye

For the members to realize to what extent they had achieved their initial personal goals, they were given back the "My Personal Goals Form" they had filled out in the first session. They were asked to evaluate themselves in terms of achieving these goals. The leader summarized all the sessions and tried to make the members realize their experiences. At the end of the study, the members were given the APS and the post-test was applied. To ensure that members leave the group with positive feelings at the end of the session, papers with the text "Stop Academic Procrastination" were prepared to increase their motivation. The leader received feedback from the members about the group experience and concluded the group work.

Findings

The descriptive analysis results of the data obtained within the scope of the research are presented in Table 1. As seen in Table 1, the pre-test mean score of the participants in the experimental group was determined as $X = 62.36$ ($SD = 9.02$) and the post-test mean score

was determined as X = 48.72 (*SD* = 2.96). The pre-test mean score of the participants in the control group was X = 57.75 (*SD* = 9.54) and the post-test mean score was X = 58.00 (*SD* = 9.40).

Table 1. Descriptive analysis results for pre-test and post-test data of the experimental and control groups

	Experimental Group		Control Group	
	Pre-test	Post-test	Pre-test	Post-test
N	11	11	12	12
X	62.36	48.72	57.75	58.00
SD	9.02	2.96	9.54	9.40

Not. *p<.05*

To examine the difference between the pre-test score averages of the experimental and control groups, a non-parametric Mann Whitney-U test was applied. The findings regarding the analysis results are presented in Table 2.

Table 2. Non-parametric Mann Whitney-U test results for the pre-test data of the experimental and control groups

	Group	N	$X_{sıra}$	$\sum_{sıra}$	U	Z	p
Pre-test	Experimental	11	13.32	146.50	51.50	-.89	.37
	Control	12	10.79	129.50			

Not. *p<.05*

When Table 2 is examined, it is determined that there is no significant difference between the pre-test data score averages of the participants in the experimental and control groups (Z = -.89, p > .05). The non-parametric Mann Whitney-U test was applied to examine the difference between the posttest mean scores of the experimental and control groups. Findings related to the analysis results are presented in Table 3.

Table 3. Non-parametric Mann Whitney-U test results for the post-test data of the experimental and control groups.

	Group	N	$X_{sıra}$	$\sum_{sıra}$	U	Z	p
Post-test	Experimental	11	8.50	93.50	27.50	-2.37	.01*
	Control	12	15.21	182.50			

Not. *p<.05*

When Table 3 was examined, it was determined that there was a significant difference between the post-test data average scores of the participants in the experimental and control groups (Z = -2.37, p < .05). It is seen that the mean score of the post-test data of the

participants in the experimental group (X = 48.72) is lower than the mean score of the post-test data of the participants in the control group (X = 58.00). This finding shows that hypothesis 1 is confirmed. Non-parametric Wilcoxon Signed Ranks test was applied to compare the pre-test and post-test mean scores of the participants in the experimental group. Findings related to the analysis results are presented in Table 4.

Table 4. Non-parametric Wilcoxon Signed Ranks test results regarding the pre-test and post-test data of the experimental group

	Measurement	N	$X_{sıra}$	$\sum_{sıra}$	Z	p
Experimental Group	Positive order	0	0	0	-2.93	.00*
	Negative order	11	6.00	66.00		
	Equal	0				

Not. *p<.05

When Table 4 is examined, it has been determined that there is a significant difference between the mean scores of the pre-test and post-test data of the participants in the experimental group (Z = -2.93, p <.05). It is seen that the mean score of the participants in the experimental group of the pre-test data (X = 62.36) is higher than the mean score of the post-test data (X = 48.72). This finding shows that hypothesis 2 is confirmed. Non-parametric Wilcoxon Signed Ranks test was applied to compare the pre-test and post-test mean scores of the participants in the control group. Findings related to the analysis results are presented in Table 5.

Table 5. Non-parametric Wilcoxon Signed Ranks test results regarding the pre-test and post-test data of the control group

	Measurement	N	$X_{sıra}$	$\sum_{sıra}$	Z	p
Control Group	Positive order	5	4.38	17.50	-.07	.94
	Negative order	2	4.63	18.50		
	Equal	5				

Not. *p<.05

When Table 5 was examined, it was determined that there was no significant difference between the mean scores of the pre-test and post-test data of the participants in the control group (Z = -.07, p > .05).

Discussion and Conclusion

This study examined the effect of a cognitive behavioral approach-based psychoeducation group program on reducing academic procrastination. According to the findings obtained as a result of the research, it was determined that the academic procrastination scores of the experimental and control groups in the pre-test and post-tests differed in the direction of decrease in the experimental group. In this context, it appears that hypothesis 1 was confirmed in the current study. The related literature reveals that cognitive behavioral group studies are effective in the improvement of various problems. Cognitive behavioral group work with children with high anxiety levels (Gedik, Gökkaya, & Tekinsav Sütcü, 2018), coping with test anxiety (Demirci & Erden, 2016), and anger management (Karataş, 2009) are among these examples. The result of the current study that group work based on a cognitive behavioral approach is effective is consistent with the related literature (Kağan, 2010; Qiu 2008; Pychyl & Binder, 2004). Toker (2014) conducted an 8-week study with 13 university students each in the experimental and control groups and found that the cognitive behavioral psychoeducation program was effective in reducing academic procrastination behavior. Ossebaard, Oost, van den Heuvel, and Ossebaard (2006) found that university students' academic procrastination behaviors, anxiety about failure, and lack of motivation decreased. As a result of a psychoeducation program based on a cognitive behavioral approach prepared by Binder (2000) to reduce the academic procrastination behavior of university students, they found that academic procrastination behavior of the students decreased and subjective well-being levels increased. It is seen that the findings are in line with the results obtained in the current study.

In the current study, the psychoeducation program based on the cognitive behavioral approach reduced the academic procrastination behavior of the students in the experimental group. In this context, it seems that hypothesis 2 is confirmed within the framework of this finding. In the sessions, group members were first given brief information about the cognitive behavioral approach. In the next stage, various studies were carried out with the group members on examining the relationship between events, thoughts, emotions and behaviors, problem-solving methods, automatic thoughts and cognitive distortions, characteristics of automatic thoughts and how they can be caught, and the formation of our emotions. In addition to the aforementioned activities, group members were trained in the recognition of academic procrastination behavior and its cycle, the ability to start an

academic task, reexamination of the relationship between action and desire, time perception and starting a task, members' cognitive awareness of time, study and evaluation of time, and the ability to continue an academic task. Furthermore, studies were conducted on how the modals of necessity "have to and must" affect the behavior in the cognitive process. In this context, it is thought that the implementation of the activities and the awareness gained by the students in the experimental group were effective on the result obtained.

It is thought that another factor that was effective on the decrease in the scores related to academic procrastination in the experimental group was the group process and experience. Since psychoeducation is based on group practice, it has positive effects on group members in terms of interpersonal communication, social learning, being a model, and cooperation (Lukens & McFarlane, 2004). Moreover, within the group, members have the opportunity to help, support, and contribute to each other (Corey et al., 2016). According to Yalom (1995), group work includes therapeutic factors such as instilling hope, universality, providing information, group cohesion, thinking of others, developing social skills, and taking someone as a role model. Psychoeducation-oriented group studies contribute to the development of decision-making and problem-solving skills. Additionally, it is thought that factors such as having a safe environment to practice the learned behaviors, people modeling each other, decreased feeling of loneliness, the presence of people with the same problems, and the sense of relief that comes from knowing that there are other people with the same problem can be effective for the decrease in academic procrastination behavior in the experimental group.

The psychoeducation program formed in the current study was developed to be applied to university students. In future studies, examining the effect of a psychoeducation program to be developed at different school levels on students can contribute to the field. Researchers can also plan studies in which different therapeutic approaches can be used to reduce academic procrastination behavior. It is recommended to conduct trainings, seminars, and group studies to prevent academic procrastination within the psychological counseling and guidance centers of universities. The lack of follow-up measurements in the current study is considered a limitation of the research. The lack of follow-up measurements in the current study is considered as a limitation of the study. Follow-up measurements, which were planned to be taken a few months after the end of the group work, could not be taken due to the earthquake in Kahramanmaraş in our region and the closed schools.

Ethical Committee Permission Information

Name of the board that carries out ethical assessment: Dicle University Social and Humanities Scientific Research Ethics Board

The date and number of the ethical assessment decision: 21.10.2022-379046

Author Contribution Statement

Özlem ÇAKMAK TOLAN: *Conceptualization, literature review, methodology, implementation, data analysis and writing.*

References

Alpar, R. (2014). *Spor sağlık ve eğitim bilimlerinden örneklerle uygulamalı istatistik ve geçerlik güvenirlik [Applied statistics and validity and reliability with examples from sports, health and education sciences]*. Ankara: Detay Yayıncılık.

Balkıs, M. (2013). Academic procrastination, academic life satisfaction and academic achievement: The mediation role of rational beliefs about studying. *Journal Cognitive and Behavioral Psychotherapies, 13* (1), 57–74.

Balkis, M., Duru, E., & Bulus, M. (2013). Analysis of the relation between academic procrastination, academic rational/irrational beliefs, time preferences to study for exams, and academic achievement: a structural model. *European Journal of Psychology of Education, 28*, 825-839.

Binder, K. (2000). *The effect of an academic procrastination treatment on student procrastination and subjective well-being*. (Unpublished Master's Thesis), Canada, Carleton University.

Burka, J. B., & Yuen, L. M. (2008). *Procrastination: Why you do it, what to do about it.* Cambridge, MA: Da Capo Press.

Büyüköztürk, Ş. (2007). *Deneysel desenler [Experimental patterns]*. Ankara: Pegem A Yayıncılık.

Corey, M. S., Corey, G., & Corey, C. (2016). *Psikolojik danışmada gruplar: Süreç ve uygulamalar [Groups in psychological counseling: Process and practices]*. (F. Aysan, S. Balcı Çelik ve A. Uz Baş, Çev.). Ankara: Nobel Yayıncılık.

Çakıcı, D. Ç. (2003). *Lise ve üniversite öğrencilerinde genel erteleme ve akademik erteleme davranışının incelenmesi [Examining general procrastination and academic procrastination behavior in high school and university students]*.(Yayınlanmamış yüksek lisans tezi), Ankara Üniversitesi, Ankara.

Demirci, İ. & Erden, S. (2016). Bilişsel davranışçı yaklaşıma dayalı grupla psikolojik danışma uygulamasının 8. sınıf öğrencilerinin sınav kaygısına etkisi [The effect of group psychological counseling based on cognitive behavioral approach on test anxiety of 8th grade students]. *Marmara Üniversitesi Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi, 43* (43), 67-83.

Dewitte, S. & Schouwenburg, H. (2002). Procrastination, temptation and incentives: The struggle between the present and the future in procrastination and the punctual. *European Journal of Personality, 16*, 469-489.

Ferrari, J. R., Johnson, J. L., & McCown, W. G. (1995). *Procrastination and task avoidance: Theory, research, and treatment*. Springer Science & Business Media.

Ferrari, J. R., & Díaz-Morales, J. F. (2007). Perceptions of selfconcept and self-presentation by procastinators: Further evidence. *The Spanish Journal of Psychology, 10* (1), 91-96.

Ferrari, J. R., O'Callaghan, J., & Newbegin, I. (2005). Prevalence of procrastination in the United States, United Kingdom, and Australia: arousal and avoidance delays among adults. *North American Journal of Psychology*, *7*(1), 1-6.

Flett, G. L., Stainton, M., Hewitt, P. L., Sherry, S. B., & Lay, C. (2012). Procrastination automatic thoughts as a personality construct: An analysis of the procrastinatory cognitions inventory. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *30* (4), 223–236.

Gedik, Z., Gökkaya, F. & Tekinsav Sütcü, S. (2018). Kaygılı çocuklara yönelik okul temelli bir bilişsel davranışçı grup terapisi programının etkililiği: Pilot bir çalışma [Effectiveness of a school-based cognitive behavioral group therapy program for anxious children: A pilot study]. *Uludağ Üniversitesi Fen-Edebiyat Fakültesi Sosyal Bilimler Dergisi*, C. 19, S. 34, s. 91-121. DOI: 10.21550/sosbilder.336670

Hammer, C. A. & Ferrari, J. R. (2002). Differential incidence of procrastination between blue and white-collar workers. *Current Psychology*, *21*, 333-338.

Horebeek, W. v., Michielsen, S., Neyskens, A., & Depreeuw, E. (2004). *A cognitive-behavioral approach in group treatment of procrastinators in an academic setting*. In H. C. Schouwenburg, C. H. Lay, T. A. Pychyl, & J. R. Ferrari (Eds.), *Counseling the procrastinator in academic settings* (pp. 105–118). American Psychological Association.

Kağan, M. (2010). *Akılcı duygusal-davranışsal yaklaşıma dayalı akademik erteleme davranışını önleme programının etkililiğinin değerlendirilmesi [Evaluation of the effectiveness of an academic procrastination prevention program based on a rational emotional-behavioral approach].* (Yayınlanmamış Doktora tezi). Ankara Üniversitesi, Ankara.

Karataş, Z. (2009). Bilişsel davranışçı teknikler kullanılarak yapılan öfke yönetimi programının ergenlerin saldırganlığını azaltmadaki etkisi [The effect of anger management program using cognitive behavioral techniques in reducing adolescents' aggression]. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, *26*, 12-24.

Klingsieck, K. B. (2013). Procrastination in different life-domains: Is procrastination domain specific? *Current Psychology*, *32* (2), 175–185.

Knaus, W. (2010). *End procrastination now! Get it done with a proven psychological approach*. McCraw Hill, New York.

Lukens, E. P. & McFarlane, W. R. (2004). Psychoeducation as evidence-based practice: considerations for practice, research, and policy. *Brief Treatment and Crisis Intervention*, *4* (3), 205–225. https://doi.org/10.1093/brief-treatment/mhh019

McCown, W. & Johnson, J. (1991). Personality and chronic procrastination by university students during an academic examination period. *Personality and Individual Differences*, *12* (5), 413-415.

Neenan, M. (2008). Tackling procrastination: An REBT perspective for coaches. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *26*, 53–62.

Ossebaard, M. E., Oost, H. A., van den Heuvel, S. & Ossebaard, C. A. (2006). The effect of a positive psychological intervention on academic procrastination. Http://Www.I2l.Nl/Pdf/4ArticleMHS.Pdf., 1–35

Pychyl, T. A. & Binder, K. (2004). *A Project-analytic perspective on academic procrastination and intervention*. In H. C. Schouwenburg, C. H. Lay, T. A. Pychyl, & J. R. Ferrari (Eds.), *Counseling the procrastinator in academic settings* (pp. 149–165). American Psychological Association. https://doi.org/10.1037/10808-011

Pychyl, T. A. & Flett, G. L. (2012). Procrastination and self-regulatory failure: An introduction to the special issue. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *30* (4), 203–212.

Rothblum, E. D., Solomon, L. J., & Murakami, J. (1986). Affective, cognitive, and behavioral differences between high and low procrastinators. *Journal of Counseling Psychology*, *33* (4), 387.

Qiu, Y. F. (2008). *A cognitive-behavioral group intervention for collegiate academic procrastination*. (Unpublished master's thesis). East China Normal University, Shanghai.

Scher, S. J. & Osterman, N. M. (2002). Procrastination, conscientiousness, anxiety, and goals: Exploring the measurement and correlates of procrastination among school-aged children. *Psychology in the Schools*, *39* (4), 385-398.

Schubert Walker, L. J. & Stewart, D. W. (2000). Overcoming the powerlessness of procrastination. *Guidance and Counseling*, *16* (1), 39–43.

Senecal, C., Koestner, R., & Vallerand, R. J. (1995). Self-regulation and academic procrastination. *Journal of Social Psychology*, *135*, 607–619.

Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. *Journal of Counseling Psychology*, *31*(4), 503.

Steel, P. (2007). The nature of procrastination: a meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychological Bulletin*, *133* (1), 65.

Tabachnick, B. G. & Fidell, L. S. (2013). *Using multivariate statistics*. Boston: MA Pearson.

Toker, B. (2014). *Bilişsel davranışçı kurama dayalı olarak geliştirilen akademik erteleme davranışıyla baş etme beceri eğitimi psikoeğitim grup yaşantısının üniversite öğrencilerinin akademik erteleme davranışlarına etkisi [The effect of psychoeducational group experience on coping with academic procrastination behavior, developed based on cognitive behavioral theory, on academic procrastination behavior of university students]*. (Yayınlanmamış Yüksek lisans tezi), Muğla Sıtkı Koçman Üniversitesi, Muğla.

Walker, L. S. (2004). *Overcoming the patterns of powerlessness that lead to procrastination*. In H.C. Schouwenburg, C. H. Lay, T. A. Pychyl, & J. R. Ferrari (Eds.), *Counseling the procrastinator in academic settings*. Washington, DC: American Psychological Association.

Wolters, C. A. (2003). Understanding procrastination from a self-regulated learning perspective. *Journal of Educational Psychology*, *95* (1), 179.

Yalom, I. D. (1995). *The theory and practice of group psychotherapy* (4.bs.). New York: Basic Books.